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A treatise on gun-powder, a treatise on fire-arms, and a treatise on the service of artillery in time of war

Papacino d'Antoni, Alessandro Vittorio

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The translator's preface.

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THE
TRANSLATOR'S
P R E F A C E.

LITTLE apology is necessary for giving to the public in an English dress, the three following treatises, written originally in Italian by M. D'Antoni; who, from his extensive knowledge and voluminous publications, ranks high among the military writers of the present age.

The object immediately proposed by the author in these and his other works, is the instruction of the young officers of artillery and engineers; and the students in the military academies, over which he presides. From this circumstance and from the particular subject of these treatises, it may at first sight be conceived, that their scope is too confined to merit general attention; but this objection will instantly vanish

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on the reflection, that from the various combinations and calculations, which inevitably enter into the military systems of modern days, a course of study is requisite to form an officer: and where can this so properly commence, as with gun-powder? on the effects of which victory or defeat essentially depend. The evolutions of squadrons and the manœuvres of battalions are in themselves necessary parts of a military education; they stand in the predicament of many other qualities, which it is reproachful to want and not very meritorious to possess: “*Multa sunt, quæ quamvis cognita non magnam merentur laudem, eadem tandem ignorata non leve possent dedecus imprimere.*” But an officer who looks forward to distinction will go farther; not content with superficial knowledge, he will trace the military science in its progress from the most simple to the most complicated details; examine the properties and force of each particular agent; and thence form those combinations, which adapted to circumstances and situations display, what is justly termed, a knowledge of the art of war.

Considered in this point of view, there can be little doubt but that the productions of M. D'Antoni may be eminently useful: for though many of the observations may have occurred

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to some writer or other before him; yet the copiousness, and, in general, the originality of the matter, together with the clearness of the arrangement, will, it is conceived, render it more satisfactory and fit for general use, than any preceding work of the kind.

It must indeed be confessed, that in this country, the inducement for an officer to make a study of his profession is not very great; weight of interest and length of purse supersede all necessity for knowledge or application: few will submit to the drudgery, requisite for attaining a mastery of the profession, since such attainment avails nothing, opens no avenue to rank or emolument, no prospect of advancement: in the law, in the church, in other lines of life, learning and application have some effect; in the former particularly, there are daily instances of abilities forcing their way through the gloom of friendless poverty and starting into the broad sunshine of rank and riches: in the military line, few such instances occur.

This picture, however true, ought not to be displeasing; on the contrary, it will, on reflection prove what every true-born Briton insists on with exultation, that the military is a very secondary order in the class of society. Every
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thing in the course of time finds its level: had the situation of this country rendered its existence inseparably connected with a numerous army; or had an extensive frontier, exposed to the invasion of powerful neighbours, made a chain of fortresses requisite for its protection; the necessity of cultivating the military science would have been felt: consequence would have attended the officer, considered both in his political capacity with respect to the state, and in his individual capacity as to his superior endowment, and he would naturally have risen to the highest level in society. But the peculiar felicity of our insular situation, having in a great measure superseded the necessity of maintaining these armies and fortresses, we are fallen by a gradation natural to human nature, into the opposite extreme: an extensive line of sea-coast left totally to the protection of the navy; invaluable deposits of naval stores either wholly uncovered, or exposed to be destroyed by a few hundreds of the enemy; and not a single fortress, where the young men designed for the army, may see the operations of attack and defence, and exemplify the lessons they may have received at their several academies or schools.

It may be urged that officers cannot be formed in time of peace, that all the theory in the world

world is incompetent to this end: the fallacy of this argument, however specious it may at first sight appear, is easily exposed. During the gloom of the middle ages, when the sun of science underwent a total eclipse, and the arts, by which the Grecians and Romans had conquered the world, sunk with all other species of knowledge into one common grave; while armies, in the ignorant spirit of the feudal system, were composed of peasantry drawn together on the emergency, badly armed, and worse disciplined; there seemed little more requisite to direct their endeavours for the sudden and short-lived occasion, than bravery in the officers. But the necessity of science was soon felt: before mathematics were applied to the purposes of war, before systems of tactics were formed; there was a certain combination of circumstances founded on calculation and previous arrangement, which every officer commanding a body of troops found essentially necessary to ensure success.

Since the invention of gun-powder and the introduction of fire-arms, what was formerly the effect of muscular strength, is now the result of solid principles, deduced from theory and confirmed by experiment. Hence, war as a science, is grounded on certain immutable axioms;

axioms; a knowledge of which, joined to habits of reflection and an acquaintance with the best military writers, will go far towards forming an excellent officer.

Not that experience is to be undervalued, or the merit of those depreciated, who by dint of observation have in time acquired a very large share of practical knowledge, to their own honour and the advantage of the service; and it must be confessed, that practice unaided by theory will in many cases effect more, than theory without practice can do: yet while we admit that experience is our surest guide, it must be granted at the same time, that to make judicious observations and accurate experiments; to draw just inferences; not to confound the effects of one cause with those of another, and to apply our observation and experience to the best purposes; is not a very simple or common thing.

Happily for mankind, wars are neither so frequent or of sufficient duration for an officer to be formed by practice alone: the commentator on Polybius, whose voluminous work is fraught with excellent maxims and just remarks, asserts that "the Coup d'Oil" that talent by which a general seizes at once all the advantages presented by a country and improves them to the utmost, may be acquired in time of peace by continually

tinually observing the varieties of ground offered to the view, and for this purpose particularly recommends the "chase." Now if this branch of the military art, which perhaps more than any other is the test of genius, can be obtained during peace, how much more must the subordinate parts be within our reach?

It would exceed the bounds of a preface to pursue this idea and point out the plan of education best adopted to our natural and political circumstances: the discussion of the question, why this island so fertile in men of genius in all other branches of science, has produced so very few men of first rate talents in the military line; and why we have had few or no writers of real, original merit on the same subject, would be naturally involved in the enquiry? let it therefore be dismissed for the present, with a hope that the preceding remarks will not be deemed altogether impertinent in the preface to a didactic work.

The selection of the three following treatises has been made from the rest of M. D'Antoni's works, in the desire of diffusing the knowledge contained in them among military men in general; but more particularly among the officers of artillery: for it must be the wish of every man, that a corps so eminently useful as the royal
artillery;

artillery; that has obtained the seal of their good conduct in the approbation bestowed on their services, by the men that Britain has chosen to command her armies for several wars past, should still retain their right to the applause of the discerning part of their profession and to the gratitude of their country. The sentiments of an artillery-officer, grounded as he should be in the several parts of military science, are in every service held in high estimation; a flattering distinction, the right to which can only be preserved by superiority of knowledge. In this respect, the very high state of improvement that the royal academy at Woolwich has attained, and the numberless good regulations that have been made within these few years past, present a most pleasing prospect.

After the recent publications on artillery by Doctor Hutton, wherein he has by a series of the most accurate experiments, established certain principles and deductions, as absolute data in gunnery; a translation of the treatise on gun-powder might by many be deemed superfluous; particularly, as it militates against some of the conclusions drawn by the learned professor at Woolwich: but whoever reflects for a moment, on the various opinions that have for a long time prevailed among practitioners,

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oners, on the theory of powder and its action on projectiles, will be pleased to find the opinions of celebrated men brought forward to public view; that the points on which they agree may be laid down as fixed axioms, and those wherein they differ more fully discussed. Dr. Hutton, for instance, asserts that no stress whatever is to be laid on the wadding of guns, with respect to increasing the force of the charge: D'Antoni affirms the contrary, and in this he is supported by Colonel Thompson, who has favoured the world with several ingenious papers on gunnery. Truth can only be attained by experiment; and to reason from effects to causes is the only mode for beings acquainted with nothing but effects: without this, causes can only be conjectured at; and the different ideas that have at various times prevailed on the subject of artillery, is a convincing proof of the gross error to which conjecture is liable.

Without entering into the history of the science, it will suffice to observe, that before Robins, who was in gunnery what the immortal Newton was in philosophy, the founder of a new system deduced from experiment and nature, the service of artillery was mere matter of chance, founded on no principles, or at

best, but erroneous ones. All the nations of Europe have joined in commendation of Mr. Robins, and adopted his axioms: yet much remained to be done; and it was left for the abilities and profound scientific knowledge of Dr. Hutton, by prosecuting his discoveries on a larger scale, to confirm his conclusions.

The military reader will not be displeased with an account of the productions of M. D'Antoni and a short sketch of their contents: being composed in a language that is not in general technically understood in this country, they are less known than their merit entitles them to be.

M. D'Antoni's works consist of thirteen volumes in 8vo. the first in point of publication was the treatise or examination of powder: the author, considering fire as the basis of all experiments upon gun-powder, gives in the first part of this treatise a definition of it; and then investigates its effects on bodies, pointing out the several modifications it is liable to: he afterwards proceeds to analyze sulphur, charcoal and saltpetre; the properties of which he considers individually and then collectively, as in the manufacture of gun-powder, of which he describes the various sorts. He then lays down a theory of the inflammation of powder,
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and deduces a number of inferences practically useful and in general coinciding with the results of experiments made in this country. In the second part, after expatiating upon the difficulty of measuring the force of fired gun-powder, even when the utmost care and precaution are taken to guard against error and irregularity; and thence inferring the impracticability of doing it to an absolute certainty in military operations, where a thousand circumstances concur to baffle the attempt: he asserts the absurdity of laying down any rule as regular and constant; since the utmost that can be obtained is an approximation, sufficient with a tolerable share of intelligence and accuracy for all common purposes. To this end, he first considers the force of powder in its most simple, and afterwards in its most complex state: then having dwelt on its modifications when fired in guns, he passes to an investigation of the initial velocity of projectiles, of the law of their impulsion, and terminates the treatise with experiments on the resistance of the air.

Having in the former treatise, examined the nature and composition of gun-powder, and analyzed it's properties, the author in the second work, entitled a Treatise on Fire-arms, applies these principles to practice: but in order to

carry method and perspicuity into every part of his subject, he takes up the matter ab initio; and in the first place treats of the resistance of fire-arms: in the course of which, he examines the hardness and tenacity of the metals employed in their construction, giving at the same time the method of refining and fusing them, with remarks on the several proportions in which they are to be mixed together. Then, having made some observations on the windage, figure, length, and casting of brass guns and mortars, he points out the inconveniences arising from what is called "the running at the vent," and concludes with the several methods of proving and examining new guns. The second part of this work is entitled "On Projectiles;" he explains the duty of an artillery-officer, both on battery and in the field, as far as regards the initial velocity of shot, the path of the shot's flight, and its effects upon works; and calculates the number of men, that may be killed or wounded in action, both by round or case-shot fired from guns of different calibres at various positions of the enemy. He draws a comparison between the effects of the howitzers and field pieces, and finishes with a chapter on shells projected from mortars.

The various properties of powder being thus ascertained,

ascertained, and its application to fire-arms fully considered; the author as a necessary consequent, treats in the third work, "Of the Service of Artillery in the Time of War," beginning with the attack of places; in the course of which he develops, the first dispositions for laying siege to a fortified town, wherein are comprehended the proportion of guns and stores for the attack of fortresses; the precautions necessary to be taken for ensuring the safety of the convoys; the situation of the park; the construction of the first, second and third batteries; the attack of the countermines and the surrender of the place: distinguishing the several kinds of sieges, and giving directions for dismantling and blowing up the works of a reduced fortress. The second part includes the whole science of defence; the author is particularly diffuse on the subject of mining, and lays down rules for the defence of a place constructed on a system of demolition. The third part treats of the field service of artillery: to convey to artillery officers an adequate idea of this essential branch of their profession, he enters into the formation of an army, and the system of tactics, and lays down dispositions for the march and encampments of armies, and for parking the artillery: in the next place, he gives the

method of disposing the artillery in the day of action; and its use in the defence and attack of field-works, together with the principles of their construction; whether for covering a country or intrenching an army: and concludes with the duties to be performed in cantonments and winter quarters. Although these three treatises did not immediately follow each other in point of time, yet as they are in a manner connected together and form the subject of the following work, it was deemed expedient to class them together.

The first book of military architecture is prefaced with a general idea of fortification and of the art of war, with a succinct account of the writers on those subjects. The situations proper for regular fortifications are pointed out, with rules and directions for the construction of the body of the place, and out-works of every denomination.

This first book containing as it were, the elements of fortification, which is considered under three heads, viz. the ancient, the primitive modern, and the present system, is followed in natural order by the second volume, comprehending the attack and defence of regular fortifications.

The third comprehends the maxims and
principles

principles of fortification; with remarks on the various systems that have been hitherto published, and directions for disposing the mines in a regular fortrefs.

The fourth includes the whole system of irregular fortification.

The fifth treats of the materials used in the construction of works, with directions for ascertaining their several qualities; and concludes with a chapter on hydraulics, and on works that are to be occasionally made in water.

The sixth comprizes irregular attack and defence, and the systems of field fortification.

In the two volumes on natural philosophy and mechanics, titled "Physico-mechanical Institutions," the author treats of the various branches of those sciences which he esteems indispensably necessary for an artillery officer to be acquainted with, and enlarges on chemistry and metallurgy, which are brought into practice in the analysis of powder and the treatise on fire-arms.

The practice of artillery in time of peace, contains rules for examining and proving guns, shot, shells and powder; with the dimensions of pieces of ordnance, and of the carriages used in the service of artillery; the construction of the furnaces and moulds for casting cannon, and

the duties of the laboratory and arsenal are explained.

In the essay "On the Management of Guns, &c." are comprehended directions for using the several machines, as the gin, capstan, &c. and dispositions for posting the men numerically to the several duties.

This is a slight sketch of the contents of these volumes, which altogether form a complete system of artillery and engineering; and perhaps, in a future day, some individual whose leisure permits may favour the public with a translation of them: well would the editor of this work deem his labours requited, should his example excite others of the corps to pursue the same route; a route, not strewed, 'tis true, with many flowers, nor leading either to the temple of fortune or of fame, yet abounding with objects sufficient to afford matter of observation and reflection to a contemplative mind.

It will be a source of satisfaction to professional men to observe, that the same ideas and modes of practice prevail among men of genius in different countries. M. D'Antoni, for instance, makes frequent applications to chemistry, and recommends it in common with other branches of natural philosophy; a course of chemical lectures is established at Woolwich by the
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master-general of the ordnance: Who after this concurring testimony can doubt, that chemistry enters into the education of the complete officer? A former master-general laid a foundation for theoretical and practical knowledge by founding the royal military repository; where the inventions of ingenious men of all nations in the military art may be collected together and displayed both in models and books: M. D'Antoni refers his reader frequently to the models in the royal schools; as to a place, whence he may draw from actual observation the most accurate knowledge with respect to the construction and mechanism of military machines.

The repository in both countries has been equally productive of a further good: in Turin, it has led to the compilation of a kind of manual of artillery in the two books entitled "the Practice of Artillery and the Essay on the Management of Guns, &c.": with us, we are indebted to the exertions and abilities of Major Congreve for the establishment of a plan of exercise, and a system of practical knowledge.

It would be tedious to dwell on all the points wherein these two systems agree; the artillerist who has made himself master of the principles established at Woolwich, will on a perusal of M. D'Antoni's works find them fully confirmed at
Turin,

Turin. Similar institutions at the same time and at different places prove their own propriety and utility: one man or set of men may err; men of liberal minds and comprehension of intellect in different countries thinking alike, can hardly think wrong.

It would be a pleasing theme to a man, who regards with any enthusiasm the future prospects of the corps of artillery, in respect to knowledge and emancipation from prejudice, to dwell on the several useful and salutary regulations that have within these few years past been adopted: but, the enumeration which would gratify zeal, would be irksome to indifference. One institution, indeed, from its general good to the country merits particular attention. If Britain ranks high in the scale of nations, she is indebted for that pre-eminence to her maritime force; the second point in that force, is her naval ordnance: the establishment, therefore, of the office of inspector of artillery became a very important consideration; the number of guns defective in essential principles was become a matter of serious alarm; the artifices of contractors and the ignorance of founders made it necessary, that officers of knowledge and respectability should be appointed to the superintendance of that department: the institution took place
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under the direction of Major Bloomfield, and the good effects resulting from it are too recent to need recapitulation.

There are some points in which M. D'Antoni differs widely from the commonly received opinions: in his proportion of ordnance and stores for the attack and defence of places, he omits howitzers and includes a large proportion of mortars. It is doubtless an object, highly worthy the attention of professional men to investigate, how far mortars can in most cases supply the place of howitzers. The absurd idea of fixing them in their beds at a certain elevation is at length, to the credit of the present day, in a fair way of being exploded: the adoption of Captain Lawson's mode of elevation, which seems at once to unite strength and simplicity, the two leading features in military mechanics, will go far toward the completion of this object. The field-howitzer, notwithstanding the apparent fairness of M. D'Antoni's comparison, will still maintain its ground: it is true as he asserts, that the moral effects of howitzer-shells cannot be calculated; yet, such is the constitution of human nature, that though we cannot ascertain to mathematical precision the force of terror, we are nevertheless certain that it works wonderful effects

effects on the most stupid as well as on the most enlightened minds. His general condemnation of light, short guns is deduced from the fairest of all principles: the only true criterion to judge of the efficacy of field artillery, is their relative effects when compared with musquets; whenever the fire of artillery can only produce an effect a little greater than a few files of musqueteers can, no man who considers impartially the advantages and disadvantages attending the use of each fire-arm will hesitate to declare, that the artillery should be disused. In saying this, there is no reason to dread that artillery will lose any of its credit; professional men will ever know how to estimate its consequence; it is only by bringing forward guns, that cannot produce the effect expected from them, that the service of artillery can be brought into disrepute. The infantry form the soul of an army; it is to support and strengthen their disposition, that guns are brought into the field. Each arm has its particular attribute: to the infantry, belong solidity and firmness; to the cavalry, velocity and weight of charge; and to the artillery, length of range and irresistible force. As well would a squadron of cavalry, whose utmost velocity could not exceed the quick march of infantry, answer
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the purpose of cavalry; as a gun, whose range with certainty would not much exceed the range of a musquet, answer the purpose of artillery. The reveries of speculatists, or the crude, ill-digested productions of mere practitioners are equally to be rejected. The perfection of artillery is to unite solidity with lightness, simplicity with strength, and to add length of range to certainty of execution: whoever does the most toward attaining these objects, is best intitled to the gratitude of his country.

There are a few terms used in the course of this translation that may require a short explanation. A *system of demolition* implies a system of fortification, where the works are connected together by arches thrown over ditches, or in any similar manner; and where the exterior work may be demolished or taken possession of by the enemy, and the communication destroyed, without the interior work being in the least degree exposed or weakened. In short, it is an improved mode of making intrenchments in the bastion and ravelin and behind the curtain: its invention is attributed to *Busca* of Milan, who wrote in the beginning of the last century.

In treating of mines, the word *provisional* has been

been adopted; since those works which the author terms branches of precaution, are not only intended as *listeners*, but to be also occasionally converted into galleries and chambers: they differ from the permanent works in not being made before the siege, whereas the permanent ones are constructed previous to it. All foreign words have been as much as possible rejected: why our language so rich in other respects should be so poor in military terms, it is difficult to account for; unless it be from the absurd vanity of shewing a knowledge of foreign languages. Surely there is sufficient strength and copiousness in the English language to express our ideas; nor have we shewn any backwardness in adopting new terms when necessary; yet we ought to be careful of “naturalizing useless foreigners to the injury of the natives;” and rather form a word from our own stock than admit needless circumlocution or foreign idiom. Dr. Johnson left much to be done with respect to technical terms; but it is to be hoped that the Oxford Lexicographer will amply supply this deficiency; and not leave the military language a prey to every petty innovator. A standard of terms should be settled: this can only be done under the authority of some judicious compiler, who may stamp

stamp a lawful currency on sterling words, and proscribe those that are unnecessary or improper.

It cannot escape the intelligent reader, that M. D'Antoni has adapted his directions for the conduct of officers, to the meridian of his own country: Turin has the Alps on one hand and the plains of Lombardy on the other; the greater part of the wars in which the Piedmontese have been engaged, have been in the Alps, the frontier towards France and Savoy; and some of their strongest fortresses are expressly for the defence of the passes of the mountains: this will account for the frequent introduction of remarks on mountainous situations.

A comparison between the English and Sardinian artillery will prove that there are many points wherein our service is better arranged, and many instances where we have the advantage of them in respect to mechanism and the making up of stores: but this will detract nothing from the goodness of the general principles, nor invalidate in the smallest degree the justness of the author's observations. The difference of the two services in one respect is particularly striking: with us, the engineers are accustomed to construct the batteries, the artillery officer having little more to do than
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prepare the stores and fight the guns: in the Sardinian, and indeed, in most other services on the continent, the artillery officer plans the batteries in conjunction with the engineer, and constructs them himself: how far this method may be advantageous, it would be foreign to the present purpose to discuss. Should it appear that M. D'Antoni brings the artillery officer too much to the fore ground of the picture, it ought to be recollected, that he professes to regard artillery only, as one of the principal conditions in the constitution of an army; and perhaps some little allowance may be made for predilection to a favorite service.

The translator had at one time an intention of subjoining by way of note, remarks on the several conclusions drawn by the author in the course of this work; and comparing them with the received opinions of the English and French artillerists, and with the discoveries and improvements made in the several branches of science on which he treats: but beside, that an ample discussion of these several points would have swelled into a voluminous commentary, it might have involved him in controversies in which neither his time nor his inclination permitted him to engage.

A second plan was merely to give such re-
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marks as necessarily grew out of the subject: but this was abandoned, as imperfect; and the reader is left entirely to the suggestions of his own mind, with respect to the merits or demerits of the work. The translator has only taken advantage of the different genius of the language, to condense as much as possible, what he conceived to be, the meaning of the original; and has left the mathematical and algebraical parts exactly as they stood, with the simple alteration of the weights and measures. To have shewn by notes, as was intended, the construction of the theorems would have been an operation of great length; the mathematical reader is therefore referred to the *Physico Mechanical Institutions*. All the weights and measures are reduced to the English standard: this, though a work of much labour, was deemed necessary; and indeed without it, a translation would be very defective. The same denomination is left to the guns to distinguish their several natures, as in the original; it being found that they corresponded to natures unused among us and to fractional parts: it was therefore apprehended that the most simple mode was to leave them as they were; the reader having only to recollect that the 32 pr. corresponds to the 27 pr. English; the 16 pr.

to $13\frac{1}{2}$; the 8 pr. to $6\frac{1}{2}$; and the 4 pr. to $3\frac{1}{2}$. One alteration indeed was judged necessary in speaking of guns: they are divided by M. D'Antoni into two kinds; viz. heavy and light: but the term light when applied to guns of that length and weight appeared so inapplicable to our idea of light guns, that the translator has taken the liberty of using the term *medium* guns, being an expression familiar to an English artillerist: reserving the term light for those short, light guns which M. D'Antoni proposes for fallies, &c.

Some difficulty occurred in fixing the precise proportion between the Piedmontese and English weights and measures. The Piedmontese artillerists use the Lyprand foot: now the length of the second-pendulum at Turin being $\frac{31}{10}$ of this foot, and at London $39\frac{2}{10}$ English inches; the foot Lyprand of 12 inches, making a very small allowance for the difference of latitude, is equal to 20.23457 English inches. The accuracy of this proportion is confirmed by the ratio between the diameters of the Piedmontese and French shot, as laid down by M. D'Antoni. The French 24 pr. shot is equal, he says, in diameter to the Piedmontese 32 pr. and the French 24 pr. being known to be equal to the English 27 pr. the former proportion
answers

answers very exactly for the diameters of the shot. Having thus established the relative diameters of the shot, it was easy to determine their weight; and thence, the proportion between the Piedmontese and English pounds; which is as 100 : 82, or the Piedmontese pound is 13 oz. 2 dr. English. It is true, that this differs from the common ratio established in the tables of the weights of the several nations of Europe, but agrees with Ferguson's table inserted in his tracts; wherefore we may conclude that in Piedmont, as in most other countries, there are two weights. The relative numbers in the tables in the second treatise are unaltered, as they would still have borne the same proportion to each other; but the ranges and lines of descent are expressed in English measure.

In fine, the translator trusts that this work will prove an useful addition to the soldiers library: with regard to the merit of the original, he can only say in support of his own judgment, that it has been deemed worthy of translation into the French language by officers of high rank. The Treatise on Powder was translated by M. le Viscomte de Flavigny: the Treatise on Fire-arms, by M. le Marquis de St. Auban, lieutenant general in

the French service; who thought the evening of a life, during which he had made 17 campaigns, had been present at 38 battles or sieges, and had served 46 years, well and usefully employed in giving to the officers of artillery, in which corps he had acquired great reputation, a work that he deemed excellent: the third treatise was translated by M. le Chevalier de Mont-Rozard, lieutenant colonel of artillery, an officer of great merit and experience. These concurring testimonies, joined to the opinions of some officers in our service of great professional knowledge, induced the translator to offer the following work to the public. He was well aware, that in the performance, two duties would necessarily be exacted from him; the one he owed to the author, the second to the public: by the former, he was bound to give the sense of the original with fidelity and accuracy; by the latter with perspicuity and conciseness. How far these objects may have been fulfilled, is left to the public to decide: to that tribunal he submits in the confidence, that if his abilities have by any means been equal to his zeal, the verdict must be in his favour.