

A lecture on some points for comparison between the French and British soldier : delivered before His Royal Highness Prince Arthur, K.G., and officers of the garrison of Dover, on 7th March, 1872 / by C.A. Gordon.

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6

A LECTURE
ON
SOME POINTS FOR COMPARISON



BETWEEN THE

French and British Soldier,

DELIVERED BEFORE

HIS ROYAL HIGHNESS PRINCE ARTHUR, K.G.,

AND

OFFICERS OF THE GARRISON OF DOVER,

ON 7TH MARCH, 1872.

BY

DEPUTY INSPECTOR-GEN^L. C. A. GORDON, M.D., C.B.,

OFFICIER DE LA LEGION D'HONNEUR;
LATE ON SPECIAL SERVICE WITH THE FRENCH ARMY.

LONDON :

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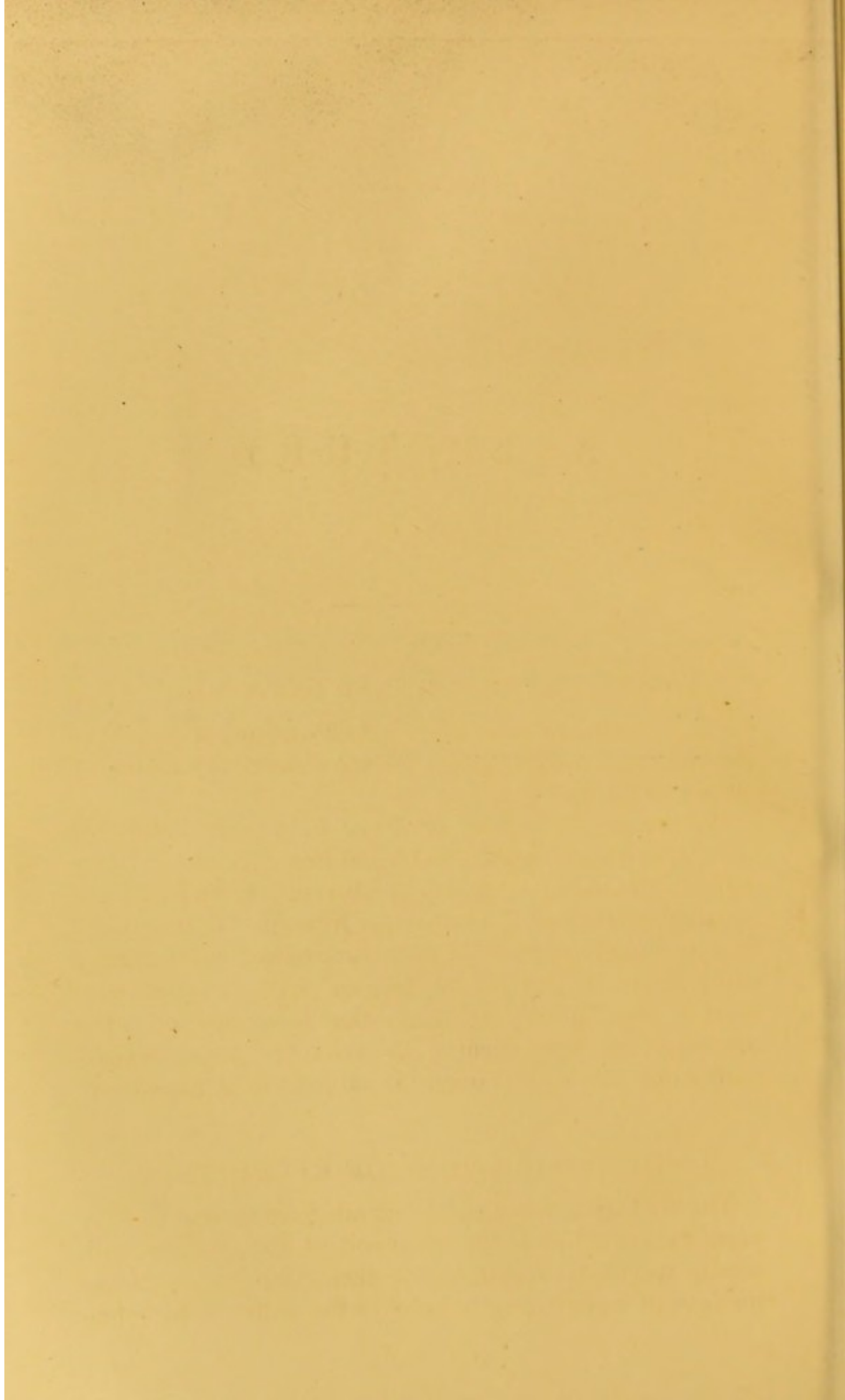
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Introductory—Recruiting—Duration of Service—Budget—Education
—Social Standing—Old Soldiers and Young—Food—Cooking on
Service—Clothing—Kit—Exercises—Marches—Service de Santé
in Relation to the Soldier—*Conclusion.*



A L E C T U R E,

&c., &c.

YOUR ROYAL HIGHNESS AND GENTLEMEN,

I HAVE been honoured with a request to deliver the first of what will, I trust, become a series of lectures by officers of this garrison.

My remarks will have reference to "Some Points for Comparison between the French and British Soldier." They will be the result of personal observation, while, in the capacity of Medical Commissioner from the War Office, I had the high distinction of being accredited to the army within Paris throughout the German siege and bombardment of that capital; my observation being verified when necessary, or supplemented by reference to recognised authorities and writers upon the subjects to be glanced at.

QUALIFICATIONS OF RECRUITS.

The military age in France extends from twenty to forty years, between which the manhood of the country, with certain specified exceptions, are theoretically liable under the laws of conscription to serve in the army. The volun-

teer may, however, engage, provided he be not under seventeen nor over thirty, or in the event of his being already in the army, up to the age of thirty-five. After the latter limit he is only admissible into the veteran companies.

The entire supervision of recruiting, whether by ballot or enlistment is vested in a *Conseil de Revision* composed of civil magistrates, a general officer of the army, and an officer of the *Intendance*.

Very minute instructions exist for the guidance of the medical officer charged with the examination of individuals, and in all cases his opinion is submitted for the decision of that body. With regard to the physical qualification required in young men, whether drawn for the army by ballot or voluntarily entering the service, let us for the purpose of comparison take that of height. This varies according to the branch of the service to which the recruit is about to be appointed; being for the carabineers, *m* 1·76, or 5 ft. 8·8 inches; cuirassiers, *m* 1·73, or 5 ft. 7·8 inches; artillery, pontonniers, dragoons, lancers, and mechanics of engineers, *m* 1·68, or 5 ft. 5·8 inches; transport train, chasseurs, hussars, and engineers, *m* 1·66, or 5 ft. 5 inches; for sapeurs pompiers de Paris, *m* 1·61, or 5 ft. 3 inches; infantry of the line, chasseurs à pied, workmen of the *Administration*, or army service corps, and military infirmiers, *m* 1·56, or 5 ft. 1 inch.

A table of chest measurements in relation to height does not appear, as with us; but practically this becomes unnecessary, and assuming that the various standards bear the same relations to each other that they do in our service, the physical differences between the French soldier and the British become manifest if we note the regulations in regard to the latter. Thus, for the cavalry the minimum height is 5 ft. 6 inches, with 33 inches round the chest; for gunners, 5 ft. 7 inches, and 34 inches; for infantry, 5 ft. 5 inches, and 33 inches; and for drivers, 5 ft. 4½ inches with a chest circumference of 35 inches.

Distribution.—Recruits having been accepted by the *Conseil de Revision* are distributed among different corps and branches of the service according to their own aptitude and the requirements of regiments ; the distribution taking place without reference to the individual, except in cases where a *request* is made for appointment to a particular regiment. When this occurs the wishes of individuals are as far as possible met, but under any circumstances, a young soldier having once joined a particular regiment, he usually remains in it throughout his period of service. With regard to *substitutes*, the same rules are applicable as for recruits, yet, in practice, it happens that frequent reference occurs to the *unfitness* physically and morally of those joining the ranks.

DURATION OF MILITARY SERVICE.

By the law of 1832 the period of obligatory service was seven years. In 1868 a decision was passed that it should thenceforward be five years with the colours in times of peace, and afterwards four in the reserve ; or in time of war that a soldier might be retained in activity throughout the whole period of nine years.

Volunteers were permitted to engage at seventeen years of age ; the period being of variable duration from two to seven years, or under certain circumstances, as for example, during the late war, so long as the campaign should last.

Re-engagements were permitted in the regular army for periods varying from two to five years, it being understood that the soldier re-engaging must do so during the last year of his first period, or after it has been completed. It has always been found, however, that the number of re-engagements were less numerous than that of the "*exonerations*," on one account or another.

According to Baron Stoffel, the longer period of obligatory service in the French as compared with the Prussian army was considered as affording the former an advantage not possessed by the latter.

That this has been neutralised by other conditions is beyond doubt ; yet the circumstance is important that in the contemplated reorganisation of the French army the periods are being still further extended. Thus, according to the plan first discussed at Versailles, all capable males shall be liable to serve for five years in the ranks of the active army, then for four in the first reserve, and then six in the second reserve, or fifteen in all ; while, by the later plan proposed, the liability extends to twenty years of personal service,—namely, five in active and four in the reserve of the *armée actif*, then five in active service and six in the reserve of the *armée territorial*.

BUDGET OF THE SOLDIER.

According to military estimates, the entire yearly expense of the private soldier amounts to 320 francs. During periods of sickness and while under treatment in hospitals, the French soldier receives no pay ; the average time he is so, is considered as one day out of every twenty-three effective, or, in other words, sixteen per annum, leaving 349 as the average time he is effective out of 365. His expenses are calculated at the rate of forty centimes per day, with a ration of bread ; thirty-two to thirty-four being deducted for the *ordinaire*, and the balance, under the name of *centimes de poche*, the perquisite of the individual for expenditure. According to this estimate, the Budget of the Soldier is represented as follows, namely :—

	f.	c.
349 days effective, at 40 centimes per day	139	60
The ration of bread, $16\frac{1}{2}$ centimes ; or with expenses of administrative services, $\frac{1}{4}$ centime additional ; or 17 in all for 349 days	59	33
Fuel for cooking and warming barracks per man per year	5	07
Spirits and other liquors issued gratis on <i>State</i> occasions, amounting to 14 per annum, and the regular allowance of <i>eau de vie</i>	4	26

	f.	c.
16 days in hospital at the rate of 1 franc 78 centimes, including administrative and medical services, <i>personnel</i> and <i>matériel</i>	28	48
Clothing, barrack damages, and sundries	30	20
Body linen and <i>chaussure</i> , or foot gear, paid by the soldier, <i>in the first place</i> by the <i>première mise de petit équipement</i> , or bounty of 40 francs he receives on joining his corps. This sum being divided over six years he remains with the colours, gives a yearly average of	6	67
And <i>secondly</i> , the daily pay of the <i>masse individuelle</i> 10 centimes per day, or for the year	36	50
Estimated wear and tear of barracks, 3 francs per man; of bedding and furniture, 6 francs 89 centimes, or in all per annum	9	89
Making a total of per man (or in English money £12 16s. per man) per annum	320	0*

With regard to the manner in which the actual accounts of the soldier are made up, I would beg to read a transcript made by myself, from the *livret* of a soldier of the 68th Regiment of the Line. It ran thus:—

	f.	c.
Une paire de bretelles	0	50
Un caleçon	2	0
Deux cravattes	1	16
Une petite mousette	0	72
Une paire de gants	0	50
Une petite gamelle	1	04
Une paire de guêtres en toile	2	40
Une havresac	14	0
Un livret	0	30
Une paire de souliers	6	35
Deux paires sous pieds guêtres en toile	0	20
	29	17
Première mise	40	0
Produit de 5 journées	0	20
	40	20
Crédit	29	17
	11	03

* "Code des Officiers de Santé," par M. Didiot.

EDUCATION.

By official *decree*, it is directed that young men on joining regiments shall there receive, *so soon as the necessities of the service permit*, an extent of instruction equal to that given in *primary* schools, in order—so the decree proceeds to state—that they may be able, on returning to their homes on completing their period of service, to communicate to the younger members of their families the results of the advantages enjoyed by themselves while under the colours; the army thus becoming, in theory, a great means of disseminating instruction and education among the masses of the people. In each regiment there are two kinds of schools,—namely, those of the *first* and of the *second* degree. In the former, soldiers and corporals receive what may be called elementary education; in the latter, the *sous-officiers* undergo a higher course, in view to becoming qualified for advancement to commissioned rank. Recruits are permitted to join the school after they have advanced sufficiently in their military training to have mounted guard if in the infantry, or passed through the riding school if in the cavalry. Attendance then becomes compulsory, at the same time that every inducement is held out to individuals. Thus, the progress made by each is, on the occasion of the periodical examinations, recorded in his *small book*; and further, the names of those who excel are mentioned in the “Orders of the Day.” Such is the theory! What is the fact? Baron Stoffel, in his very remarkable reports from Berlin, alluding to the relative state of education in the armies of France and Prussia, records his opinion that the higher standard of, and more general instruction in, the latter as compared with the former constituted an important point of military superiority,—a view adopted by every writer who has discussed this subject since the occurrence of the late war.

SOCIAL STANDING.

Under the laws of conscription, as originally enforced, the army of France was a fair representation of the manhood of the country. The profession of a soldier, always honourable in itself, was held doubly so during the First Empire. But with the introduction of the proviso by which personal service could be compounded for by a money payment, or vicariously by a substitute, all this became changed. Need you be reminded that the Regulations upon this subject date back as far as 1832; that so great had the abuses connected with the system become in 1855, that a special enactment was published in order to check them, some further instructions with the same object being promulgated in 1858; but that virtually the traffic in substitutes had continued notwithstanding? What then have been the elements of which the ranks of the French army have been made up? Those ranks have been filled for the most part by men too poor to purchase exemption from service in them; partly by volunteers, who, from various causes, preferred military life and adventure to more peaceful and remunerative industry; by some who, for mere mercenary considerations, became the substitutes for others; by a certain number whose special circumstances induced them to seek absence from home and kindred; and lastly, although in a relatively small proportion, by young men who having passed through the curriculum of one or other of the military schools, and been unsuccessful at the competitive examination for the position of officer, entered the ranks of the army in the hope of thence gaining what for the time-being they had lost.

But with the occurrence of the late war, the conditions of ordinary times gave place to others demanded by the emergency. When the progress of events had rendered a siege of Paris imminent, a force for the defence of that

capital had in a great measure to be extemporised from its own population; for although at the beginning of September the troops available for defence included the garrison left on the departure of the "*Army of the Rhine*," a corps d'armée brought back from Mezières by General Vinoy on the 5th of that month, and a considerable number of Mobile National Guards rapidly concentrated from the provinces, still all these were palpably unequal to the great struggle now fast approaching. The urgency of the occasion superseded all codes of *Regulations*. *Men* had to be obtained, and for the time-being, almost the only qualification needed was that those enrolled should be able to carry rifles and march. The old and the young, rich and poor, literally the peer and the peasant, soon stood side by side, first undergoing the elements of drill, but ere many weeks were over, in deadly conflict against their common foe. Military enthusiasm and sense of duty induced many men to enter the ranks who might have been exempted had they so chosen; thus the old and grey-haired, the youth, the lame, and even those afflicted with bodily deformities, all freely obeyed the general call to arms; many foreigners also entered battalions of National Guards or the various contingents, more especially the corps of *Amis de France*, and *Franc-tireurs*, and from that time forward throughout the dreary months of winter, while the once beautiful city was isolated by a terrible line of fire and steel from the outer world, it may well be said that its *manhood* were under arms for its defence.

It is completely foreign to the purport of these remarks to trace the circumstances upon which the final issue of that long siege and investment depended. It is within their sphere however, to notice some facts which at the time were palpable, and formed subject not only of comment in the daily journals, but of some severely-worded military orders. They referred to the battalions raised

from among the populace in the Belleville and Villette quarters, which, as you are doubtless aware, are to Paris what Whitechapel is to London. Such was the social status of the male population of those places, that of about 80,000 in each, 70,000 received municipal relief throughout the siege. So soon, however, as the battalions of the National Guards raised from among them were sent to the advanced posts, large numbers of the men were seen to be intoxicated; the better-conducted regiments right and left of their line declined communication with them; they fought among themselves, but so far from their deeds against the besiegers receiving honourable mention, a *general order* directed their immediate recall within the barriers. We will not for the present follow these same men through the fearful days which succeeded the 18th of March; suffice it to observe that the prison of La Roquette and the Cemetery of Père la Chaise are in and near those quarters, and you need not be again informed of the atrocities there enacted. Different, far different, was the conduct throughout the siege, of battalions raised in the quarters of St. Germain, the Madeleine, and some others. Different were the materials of which they consisted, and in many instances their gallantry was conspicuous.

OLD SOLDIERS AND YOUNG.

The very important question of the relative advantages of old soldiers and young, for the purposes of actual military service, has been variously considered in France, but possibly decided by events connected with the late war. General Trochu devotes a chapter of his work on the French Army, to this subject; being careful to render clear the distinction he draws between *old soldiers* and *old men*—a distinction to which it is right in these remarks to solicit attention. According to this distinguished author, and, it may be added, to others on the present topic, the *old*

soldier is the man of 25 to 30 years of age, who, while still retaining his bodily activity and *élan*, has the advantage of military experience, and especially so if he has served in war; the *old man* is he of 35 to 40 years of age, whose spirits and activity have alike failed, and who, in re-engaging, has no further interest in the service than to pass in it the requisite number of years to entitle him to his *retraite*. We are reminded that in the war of 1805 and 1806, including the battles of Austerlitz and Jena, the effective part of the army under Napoleon I., consisted of men of 25 to 30 years of age, who, although *young* in regard to period of life, were *old* as soldiers and in experience, only to be gained in the field; and it is within your knowledge that when, in 1807 to 1809 the severe losses to which the army had been subjected, rendered it necessary to fill the ranks with young lads, simply because conscription had already withdrawn the male adults subject to it, these immature youths, unable to withstand the hardships of arduous service, became so many drags upon the more efficient portions of the legions; nor need you be reminded of the request affixed to the demand for fresh levies by that great leader—"Give me *men*. Boys serve but to strew the road-sides, and fill the hospitals."

Coming down to the late war, many eye-witnesses have narrated the severe and obstinate struggles between the regular soldiers of the French army and their opponents at such places as Gravelotte, Orleans, and Sedan, while as an example of results when recently-raised and inexperienced levies are opposed to men inured to battle, we need only turn to the force under General Chanzy, falling, as it did, prisoner into the hands of the Prince Frederick Charles. So it was throughout the Siege of Paris. The troops of the regular army within the city numbered at the utmost 50,000 men, those newly raised, considerably over 400,000. On all occasions the former evinced that courage and recklessness of personal danger for which the

French soldier has ever been famous. In the capacity in which I had the distinction to be attached to the besieged army, I had several opportunities of observing them in action in battles which, in magnitude of numbers engaged and of casualties, take rank among the greatest fought in this or any other war, such as those of Champagne, Drancy and Bourget, and the final effort against Montretout and Bougival; and I trust I may be permitted to pay my tribute of admiration to the devotion and courage with which the remnants of the old army held their ground. As the siege progressed, the Paris levies became changed by the force of circumstances from *raw recruits* to *old soldiers*. If unsuccessful against the more powerful, better disciplined, and better fed enemy, their training enabled them when the opportunity offered, and they had turned *Communists*, to resist, for a time successfully, the levies of inexperienced troops, in their turn raised under great and pressing emergency by the Government of Versailles. These things are facts, important facts, and seem to me to plainly "*point a moral*."

FOOD OF SOLDIERS.

The French soldier, considered from an English point of view, is, at the best of times, poorly and insufficiently fed. It is true, that in the late war a special scale of rations was laid down for the troops considerably in excess of that allowed in former campaigns; but it does not appear that the men obtained the advantage of it, even at the outset of the war, and soon the force of circumstances deranged the intentions in this, as in other respects. The various articles comprising each of the scales in question, are given in the following tabular form, viz :—

Articles.	Peace Scale.	Field Scale.	Proposed Scale.
	gr.* lb. oz.	gr.* lb. oz.	gr.* lb. oz.
Fresh meat, with bone . . .	250 or 0 8	300 say 0 10½	400 say 0 13
Or salt beef . . . . .	...	250 say 0 8	350 say 0 11
Or salt pork . . . . .	...	200 say 0 6	300 say 0 10½
Bread, munition	750 or 1 8	...	750 say 1 8
Bread (white) for mess . . .	250 or 0 8	...	250 say 0 8
Or biscuit . . . . .	...	735 or 1 5	828 say 2 0
Fresh vegetables	100 or 0 3	...	...
Or dried vegetables	30 say 0 1	60 say 0 2	60 say 0 2
Or rice . . . . .	...	30 say 0 1	60 say 0 2
Salt . . . . .	...	16 say 0 0½	16·66 say 0 ¼
Sugar . . . . .	...	21 say 0 0¾	21 say 0 0¾
Coffee . . . . .	...	16 say 0 0½	16 say 0 0½
Wine, exceptionally impure . .	25 c.l.	25 c.l.	25 c.l.
Or eau de vie	3·2 c.l.	6 c.l.	6·25 c.l.
Or beer or cider † . . . . .	...	½ l.	½ l.

It is hardly necessary to remark in general terms that the purposes of food, include the supply of material by the assimilation of which, the vital functions are carried on, as also, that needed for the repair of tissues expended in the performance of those vital functions, and in exertion by the individual whether it be physical or mental. Thus, food not only supplies energy to man in a way almost identical with that by fuel to a steam engine, but in addition, yields material to repair the destruction caused by wear and tear in the human mechanism.

Physiologists have accordingly arrived at certain conclusions in regard to the materials required in order to maintain a man in health, and capable of performing particular kinds and degrees of muscular exertion, the result being that for a working man such as a soldier is obliged to be, 20 grammes or 360 grains of nitrogen, or flesh-forming, and 300 grammes or 5,400 grains of carbon, or power-giving material are needed daily; while under conditions where men are exposed to continuous and severe fatigue, want of

* Grammes.

† Litres and centilitres.

rest, mental anxiety and excitement, as soldiers necessarily must be during war, the expenditure of their tissues and energy equals 25 grammes of nitrogen, and 310 of carbon, whereas the ordinary ration of the French soldier represents only 13·95 grammes of the former, with 318·50 of the latter.

In 1850, the *Conseil de Santé* vainly represented the necessity of increasing the daily quantity of meat to 350 grammes, or a little over 12 ounces. In May of last year, the Government of Versailles directed this very amount to be given to the troops then employed against the Communists. In the Crimea the British soldier had 480 grammes of meat; in the Holstein campaign the Prussians had 450; and during the American War the troops of the Northern States had 560.

The pecuniary means of the French soldier, do not enable him to supplement the *ration* with articles of extra messing, and during the late Franco-Prussian War, it became impossible to provide many of the troops, especially those engaged in the defence of Paris, with even the lesser of the scales enumerated. Their daily allowance of food, like that of all others of the besieged, underwent progressive decrease, and when, on the 19th January, 1871, the final sortie and battle took place against Montretout and Bougival, the whole of the food carried by a soldier, and intended for six days' consumption, consisted of 18 sailors' biscuits, 1 lb. of sugar, 1 lb. of coffee, and 50 grammes, or about 1½ oz. of salted meat. Upon that, as other similar occasions, horseflesh was abundant on the field, and the avidity with which the still quivering flesh of those animals, killed by Prussian shells was cut up and carried away reeking, was most repulsive and horrible to see. Yet, with such an adjunct, the available food was miserable in the extreme, and quite insufficient to maintain men in a fit condition for the work they had to do.

Cooking on Service.—The troops who bivouacked upon

the field after the battle of Drancy, on 21st December, 1870, performed their cooking behind such shelter as they could obtain or raise against the piercing cold wind that swept across the plain. Some little parties put up for themselves portions of their *tentes abris*, others, with their picks and spades, formed embankments, others descended into ditches which, for the purpose of drainage, intersected the field; and thus, some singly, some in groups, they prepared, as best they could, the soup of *Viande de cheval*, thickened with marine biscuit, and further made palatable by scraps of vegetables, which only needed to be *broken* out of the frost-bound soil. For fuel they had twigs and branches of ornamental trees and shrubs, pailings, and, worse than all, fragments of furniture from the neighbouring ruins of what had but lately been a peaceful village suburb of the capital.

CLOTHING.

Considerable differences exist between the kind of articles of clothing supplied to the French soldier and to him of the British army. First and most notable, perhaps, is the absence of *socks* from the list of necessaries of a Frenchman, whereas, the English soldier has *three* pairs; instead of our *two* pairs of ammunition boots, the French soldier has two pairs of shoes; ours have each a hair-comb and razor, the French neither; a regimental barber being appointed to shave the men; ours have each two towels, the French have none. In some respects, however, they are provided with articles which our soldiers are deficient in. Thus, the French soldier has two pairs of drawers, ours has none; he has two neckties, ours has the stock; three pairs of gaiters, ours has a pair of leggings for wear in bad weather; a cotton cap and the *bonnet de police*, with the equivalent of neither of which our soldier is supplied. So also with the *pantalon d'ordonnance*, and two pocket-hand-

kerchiefs of the French soldier, neither of these occurring in the list of "necessaries" of ours.

The Kit.—According to technical nomenclature, the different articles that form the kit of a French soldier are divided into those of the *grand equipment*, and those of the *petit equipment*. The former include such articles as are not carried in the knapsack as *tente abri*, arms, and so on; the latter such as are. The former are the property of the State, the latter, of the individual. The weight of the kit as carried under ordinary circumstances, is as follows—namely, clothing, 13·57 lbs.; equipment, 2·90; armament, 18·96; necessities, 13·38; pack, 4·73; share of *tente abri*, 4; blanket, 3·5; total, 61·04. But in addition to these articles, the soldier on active service carries 30 extra rounds of ammunition, 3·19; the water-bottle filled, 2; rations for 6 days, 6; equal to a grand total of 72·23 lbs. Nor does even this represent the entire load carried under particular conditions. The allowance of fuel for cooking has sometimes to be carried, so have the *squad* cooking vessels, a coffee-pot, besides intrenching tools, and even larger quantities of ammunition than are here stated.

To contrast these particulars with corresponding points in the British army, I would remind you that the actual weight carried by the English foot soldier is as nearly as possible $62\frac{1}{2}$ lbs., or more than 10 lbs. less than the Frenchman. Let me also solicit attention to the differences already noticed in regard to height, physique, and food of the two, and the disproportion between all these and the load under which the French soldier proceeds on service will become still more apparent.

In the sudden emergency of a siege, great difficulties presented themselves in regard to the sufficient supply of clothing for the troops, whether of the regular forces or *Garde Nationale*. These difficulties were, as far as practicable, combated by Government, and charity supplemented in some measure what was still wanting. Yet,

great as were the exertions made, the unfortunate fact remains that a large body of the troops of the defence were too inadequately clothed to be able to resist the inclemency of the season, although in some instances, at least, their garb, if not strictly for *parade* according to our notions, was certainly *peculiar*. Among the articles supplied to them from various sources were extra rugs. A sheep-skin fur coat, and hoods of different kinds for protecting the ears—the latter worn under the *képi*—were moreover, distributed among them. On the night prior to the battle of Drancy and Bourget, a considerable body of troops had taken up their position and bivouacked where they stood. After the action had begun, they were seen advancing towards the front, their *tentes abris* suspended from the neck in front and doubled like an apron, the two blankets similarly suspended in front and behind, their knapsacks and field paraphernalia secured above all, their heads protected by *wraps*, *comforters*, and *passes montagues*, their whole appearance producing a laugh, serious as the surrounding circumstances were. That they were not singular, however, appears from the accounts of correspondents with the German troops. These were evidently as well cared-for, and in many respects better, in so far as clothing was concerned, than the French; and their individual aspect and habiliments were quite as remarkable in their way as those just alluded to.

MILITARY EXERCISES.

In the French army, as indeed, in all others, it is accepted as a principle that nothing is more conducive to health than a life of activity and movement: also, that it is only when the laws of hygiene are misunderstood, that the peculiar conditions connected with the life of a soldier, act perniciously upon his health.

It is well known that although exercise and activity are necessary to maintain health, over-fatigue speedily lowers and destroys it; hence it is that in all garrisons care is taken that the numerical strength of the forces shall be with reference to the extent and nature of the duties to be performed by them, the period of the year, and nature of the climate.

The laws of July, 1791, are still in force, whereby the nights each soldier may have in bed under ordinary circumstances, shall be for the infantry, eight, and never less than six; for the cavalry, twelve, and not under six; although it often happens that the duties are unavoidably increased, so that the soldier has to mount guard once in three days. This cannot long be persisted in, however, without giving rise to very grave inconvenience to health. Among the French troops physical exercises are those chiefly attended to for filling up the spare time of the soldier; their authorities upon military Hygiene pointing out, that now as in the days of Vegetius, it is necessary that all the leisure time of the soldier should be actively occupied; for, as that Roman author observed, not only is continued exercise necessary to maintain the soldier in *training*, but slothfulness and inactivity enervate the most robust, unfit them for continued exertion, and, worse than all, diminish their physical courage. The exercises practised, accordingly include the use of all kinds of arms, all varieties of manœuvres and fatigues to which they are liable during war, such as military evolutions, forced marches, passage of rivers, escalading, attacks upon and defence of intrenched positions, all kinds of manual work, gymnastics, running, singly and in bodies, and with and without burthens; the object being to train each individual slowly and imperceptibly, as it were, in each of these. The formation of camps of manœuvres has of late years constituted an important item in the training of the French soldier. The ordinary season for drill is summer, parades

for the purpose being then for the most part held in the early morning. Individual drills are recommended to be short and frequent, rather than long and few. The former interest, the latter fatigue and chagrin the men.

MARCHES.

As in our own army, the practice of route-marching in that of France begins when regiments have finished their regular course of instruction, and ends when the succeeding course is about to begin. The marches generally take place once a-week, but under special and temporary circumstances may do so twice ; they are usually made after the morning meal, unless in very hot weather, when they take place in the early morning. There are occasions, however, when the time selected for them is the afternoon, beginning at 4 o'clock, an obviously objectionable arrangement. At the beginning of the season they are made by separate battalions, then by entire regiments (of three battalions), their length beginning with four hours, gradually increasing to six. At first starting, the rate of pace is 100 steps per minute, gradually increasing to 120, and even 130, but restored to 100 during the last half hour of the march. For the more ready comparison of these particulars with similar ones with regard to the British soldier, let it be observed that the regulated pace in the French army is 26 inches, in the English, 30. The French soldier taking 110 to 120 steps per minute gets over 238 to 260 feet, or 2.70 to 2.95 miles per hour, exclusive of halts, whereas the English soldier, taking in quick time 110 steps per minute, traverses 275 feet per minute, or 3.1 miles without halts. This is the regular and ordinary state of matters. On occasions, and for a brief period, the rapidity of pace of a French regiment on the march *appears* to exceed that of our infantry, but it is only for a short time.

Adverting to the march of large bodies of troops, the maximum daily distance a *corps d'armée* of 30,000 infantry is considered capable of performing is 5 French leagues, and even this requires that the men be under arms during twelve hours at a time. On occasions, 28 kilometres, and even more have been performed, but when repeated day after day, a series of marches of this kind are said to be scarcely less fatal in their results than a battle, especially among young soldiers; and it is allowed by authorities upon the subject, that the most rapid marches have not always given the best military results. History contains many particulars of distances traversed by French soldiers on what are called *forced marches*, a few of which may be enumerated as they happened during the present century (*a*). Thus, in 1800, the armies performed 135 marches continuously, the longest being 38 kilometres (*b*), the shortest 4; average of the whole 17·3; in 1805, 267 marches, of 42 to 12 kilometres, medium 26, and this is the greatest continuous average recorded; in 1806, 94 marches, longest 49, shortest 5 kilometres, medium 25, that being in the present instance merely an abstract quantity. In 1815, 20 marches, the longest 32 kilometres, shortest 10, medium 22. We learn, however, that on the famous 15th June of that year, the army of the First Napoleon made a march of *ten leagues* French; the *garde* traversed 28 kilometres, the First corps 32, the mean distance traversed by the whole army being 30 kilometres, or about $7\frac{1}{2}$ leagues. Coming down to more recent times, we learn that in the campaign of 1859, the successors of those armies performed 130 marches, of which the longest was 31 kilometres, the shortest 8, the mean 15·5; and that in connection with the campaign of 1866, 459 marches are recorded, the longest being 42 kilometres,

(*a*) Sur la marche d'un corps d'armée. Par Lewal.

(*b*) The kilometre is equal to 1·60932 mile. The *Lieu de poste* to 2·4222 miles.

the shortest 4, the mean 22·6; and now, still further descending in time to the great Franco-German War of 1870-71, the records of that event must be searched, so that we may obtain a few more particulars, and when got, they will be found to refer rather to the invaders than to the invaded. Let it then be premised that the Germans were physically more powerful men than the French, that the actual weight carried by the former, was considerably under that by the latter, that the relative difference was still greater, and the explanation at once presents itself why the Teuton was able to outmarch the Celt. The armies of MacMahon, after leaving Rheims, only covered a daily length of 10 miles, while those of the Crown Prince marched between the 20th and 25th of August a distance of 80 kilometres, or a daily average of $13\frac{1}{3}$ kilometres, after which, in the next seven days, the same army marched over 100 kilometres, or upwards of 14 kilometres per day, consummating its performance with the victory of Sedan. Towards the latter end of the same month, the army of the Crown Prince of Saxony, 80,000 strong, completed 80 kilometres in 3 days, or an average of $26\frac{1}{3}$ kilometres per day; at the same time the armies of the Crown Prince continued their march during six consecutive days, the daily average length being 15 to 20 miles, the men being under arms from 4 a.m. to 8 p.m., and even till midnight, seldom able to cook any other rations than coffee, and each carrying in addition to his ordinary kit, three days' supply of bacon, rice, and biscuit. In the dead of winter, and when, for a very short time, the fortune of war was adverse, the Germans made no less surprising marches than have been alluded to. Von der Tann, with the remnants of his Bavarian army, when retiring from Orleans before General de Paladines, accomplished 42 miles in 26 hours, and the ordinary length of his marches was 18 to 20 miles, the men halting but rarely, and arriving at their bivouac with a light and active step, such as they had when they began their march.

SERVICE DE SANTÉ, IN RELATION TO THE SOLDIER.

Finally, let us for a moment consider the state of the *French Service de Santé* as it existed during the late war, in relation to the soldier, or in other words, that department of the military services whose special functions comprise the preservation of health of the individual, and when stricken down, whether by the subtle action of disease or by the stroke of the enemy, the scientific care, upon which alone escape from death depends, and the knowledge of which being available, gives to troops, officers, and privates alike, that confidence in the day of combat, without which, all history declares that battles cannot be won.

Need I remind you that in the French army a medical department has no separate existence, being merely a branch of one of the *Directions*, namely, the fifth, into which the administration of the War Office is divided. That "*Direction*" comprises, as *sub-branches*—*a*, the services connected with the march, transport, and military conveyances ; *b*, food and fuel ; *c*, personnel of medical officers, military hospitals, regimental infirmaries, and invalids ; *d*, clothing, bedding, and equipment ; *e*, pay, accounts, and interior administration of all branches of the service ; the whole constituting the Direction of the *Intendance Militaire* and administrative services.

Thus the needs of sick and wounded men are placed in the same category as those of food, pay, and conveyance of the efficient ; and the technical knowledge necessary for successfully combating disease, or treating grave injuries, accorded a measure of consideration less than that granted to the duties of supply to the hale and efficient. The prospects of the *Officier de Santé*, alike for promotion and honorary rewards, are in the keeping of the very department of the army with which he must necessarily come into

collision in the every day performance of his duties. Thus, does he represent defects in the accommodation, food, or clothing of the troops? All these are provided by the *Intendance*, to which he is subservient in all things. Does he demand liberal supplies of medicines or *comforts* for the sick and wounded under his care? His very request implies that the *Intendance* has been remiss in both respects. His duties are, in fact, only with the subject of disease or wound, but without initiative power; and what have been the results, in a military point of view, during some late wars, as well as that to which these remarks more especially refer? In the wars of France in Algeria, in the Crimea, and in Italy, surgeons were insufficient in number to adequately minister to the sick and wounded; and what happened? The horrors of the Crimea form one of the saddest stories of modern history. The terrible scenes after the battle of Solferino, where the wounded lay untended for days, have been touchingly narrated by M. DUNANT, the founder of the Red Cross Societies under the Convention of Geneva; and that the frightful rate of mortality among the wounded during the siege of Paris was in a great measure owing to the insufficient number of operative surgeons was at the time acknowledged by all who were in a position to form an opinion upon the subject. After some of the great sorties, for example, hundreds, and in one case thousands—after the battle of Champigny, 5,000 and upwards—of wounded, many of them suffering, in addition, from frost-bite, were brought into the hospitals. All day and all night, from 30th November till 4th December, surgeons were engaged in the performance of operations of all degrees of importance and complication; their hands becoming cramped and sodden with the work, themselves wearied and exhausted by watching, responsibility, and fatigue. Yet, operate however fast, many of the patients passed into that state in which their wounds became offensive; the air was tainted by morbid effluvia,

hospital diseases spread everywhere, and for days and days funeral processions, wending along the thoroughfares of the blockaded and bombarded city, proclaimed to all how sad and terrible was the death-rate among those who could only be saved by prompt and sufficient professional aid.

I must have done. Not because my subject is exhausted, but that the ordinary limits of an address have already been exceeded. For this, and for the strain already placed upon your patience, I humbly crave indulgence. Although the subjects selected for comment only represent fragments, as it were, of the military fabric to which they refer, it has been with difficulty that my glance at each in succession has been limited even to present dimensions, considering that without a certain number of details it becomes utterly impossible to convey a tangible impression of the subject reviewed.

You have doubtless drawn the natural inferences in regard to each succeeding "point for comparison" I have discussed; nor need I doubt the result at which you have arrived. It is beyond question that many very important lessons are to be learnt from the Franco-German War—lessons as to what it is desirable to adopt, as well as what should be avoided; nor can the observer of events help seeing the useful purpose to which those lessons have been put in the scheme so recently promulgated in regard to our own service.

Let us ever profit by comparisons with, and teachings of, conditions, although less fortunate than those under which we have the happiness to live; and England may long continue safely to confide her great interests to the keeping of that glorious army of which your Royal Highness is an ornament, and to which, when called upon hereafter to fill that high position we sincerely hope is in store for you, you will add increased lustre and honour.

