

Thesis  
on  
The Health of Armies  
by  
George Wood -

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Journal of Soldiers' pay.  
a barometer. 29.

Good use made of Ballygall & Marshall  
and Co. the on the same as the original work  
should have appeared with improvements.

## Examination of Recruits

All are agreed that a judicious selection of recruits for our Army, is a subject of the greatest importance towards our national welfare.

To collect together the most suitable men, we must know in what part of our Kingdom to find them, and also to be able to select those whose constitutions are best fitted for the arduous duties of a military life.

Age should certainly not be overlooked in the construction of a body of men intended to undergo those exertions, which necessarily attend an Army, more especially when engaged in active service. How often in military history, have we heard of huge calamities, having befallen ranks of men, ascribed to the enormous age, at which the recruits were permitted to join; Many thought you could scarcely enlist men.

men

too young, grounded probably on the idea, that the younger a person enters upon those pursuits he is subsequently to follow, the more easily will he be trained to the peculiarities of his new occupation. However true this may be in other matters certainly it does not hold good in reference to military recruits.

Sir George Bellingall has specified the most eligible period of life, for enlistment, to be from twenty to twenty five years of age, and as this agrees with the opinion of most authors who have written on the subject, it is probably correct.

All loudly protest against lads of eighteen or younger forming part of an Army, knowing that these are they who crowd the hospitals, in the time of war. Buonaparte was well aware of this, for on one occasion he said "I demand a ~~large~~ levy of 300,000 men, but I must have grown men; boys some

only to encumber the hospitals, and the road sides."

In selecting recruits, we should do well to attend to the former occupation of the men, for beyond doubt, it has an important bearing upon their efficiency as soldiers: Agricultural and out-door labourers are acknowledged to make better soldiers than the manufacturer; and those accustomed to sedentary pursuits, the former are much less affected in the time of war, by severe manual labour, & are much better able to withstand the vicissitudes of weather: Further they not unfrequently possess a knowledge of the management of horses and carriages, which renders them still more eligible, especially for the Cavalry and Artillery branches of warfare.

The physical conformation of recruits ought always to be carefully looked to;

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by the Surgeon, before they are enrolled. We generally associate the idea of an efficient Army, with the excessive tallness and stoutness of the men, who compose its ranks, but it has been again and again observed that these are the men who often give way soonest, when exposed to privations.

Those to be preferred, are middle sized, robust, active, and muscular men, such are found to succumb less easily to disease, and to bear up best against hardships of every sort; Besides there is a wide difference in our day, in the mode of fighting, from what prevailed formerly. Men seldom now come in close contact with each other, and surely a man of ordinary stature can manage and discharge a Musket, equally well with a taller one.

It is part of the Surgeon's duty to

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examine the recruits for the purpose of ascertaining whether or no he suffers from any organic disease, which may incapacitate him for actual service. To give a detailed account of the method generally followed for this purpose, would be very lengthy and uninteresting, as would also an enumeration of the different defects, which might prevent a man from enlisting. It ought to be the pride of every military Surgeon, that his regiment be as efficient as possible, and for this end he should take especial care, not to overlook any important defect in the recruits. As a guide for him the Medical department supply each regiment, with printed papers, detailing the diseases, deformities &c, which dis-qualify a man for service, as well

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as the method of conducting the necessary examination.

The Surgeon should also possess a knowledge of the diseases feigned by Soldiers, and the means of ascertaining the truth, or falsehood of their statements; The motives which induce both recruits, and also those already in the ranks, to simulate disease, are very various, as are also the different diseases, and deformities themselves, which are feigned.

It would be foreign to my subject to enter more fully into the considerations of simulated diseases, although a matter of vast importance to the military Surgeon.

## Clothing

In the Eye of the Military Surgeon who has the health, and Comfort, of of his Regiment at heart, the subject of clothing will certainly claim a considerable amount of his attention, and study, and perhaps there are few matters connected with the hygiene of Troops, (as far as concerns the duties of the Surgeon), which stands more in need of speedy reformation, as the lamentable statements which were every where to be found filling our Public Journals, during the recent Campaign, will abundantly testify.

When we hear of our Guards actually becoming exhausted under the heavy burden of their shakos, during the heat of the burning sun, surely we have the fact brought vividly before our eyes, that it is high time for

appearance to be sacrificed for comfort and efficiency.

How widely different is the subject of clothing looked upon in our Army from that of other countries, say for example our Allies, and late enemies, with us appearance and display is the chief object, with them comfort and usefulness is the all important consideration, and yet the neatness and uniformity of costume is seldom if ever interfered with.

In order to render clothing efficient, particular regard should be paid to lightness, and durability, and the avocations of Soldiers, and Sailors, demand that it should be so constructed as to give them the freest use possible of their limbs, while at the same time it should protect them against the atmospheric vic-

vicissitudes, which their occupations necessarily, often exposes them to.

The small Sackets of our Soldiers are particularly ill constructed, in as much as they leave unprotected, the Loins and Hips joints; they are also often made so tight, as to impede motion very considerably?

The present cumbrous head-dresses, which some of our men wear, although sufficiently ~~objectionable~~ ornamental, are particularly objectionable, and point out very strikingly, how little attention is paid to comfort.

A proper Head-dress should combine, the qualities of lightness and protection, both against the weather, and against the blows of the enemy.

The best kind of under clothing is undoubtedly Flannel; in as much as it is particularly useful, both in hot

and cold climates, in the former it guards against the severity of the weather, and in the latter it is believed by all, to be of great benefit, in preventing the evil effects, of malarious exhalations, and infectious diseases. Sir John Pringle states that he has seen the distribution of Flannel, among the men, when they were suffering from Fever, act as a remedial agent, of great magnitude, in checking the onward progress of the fever.

The only drawback to the use of Flannels, is that unless care is taken, that they are often changed, and sufficient regard paid to cleanliness, injurious results are apt to accrue.

Personal cleanliness of the men, should also be attended to, by the Surgeon, for some of them when left to themselves, either from laziness or carelessness, not un-

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-unfrequently, neglect this most im-  
-portant branch of military hygiene.  
It has been observed that those men  
who are most slovenly in their persons,  
are always the first, to suffer from  
disease.

It not unfrequently happens, that  
Soldiers are compelled to make a  
lengthy march on dirty and dusty  
roads; and therefore, cannot fail  
to have their bodies more or less be-  
-soiled with obnoxious matter, and if  
this be allowed to be repeated, day after  
day without removal, before any great  
length of time, must prove injurious  
to the health; the best means to be  
recommended is perfect ablution, when-  
-ever of course such a method is pract-  
-icable. Indiscriminate bathing should at  
all times be encouraged, & it would be  
well if each man could be taught to swim.

Exercise &c.

As to the community at large, so to the Soldier; nothing can be more conducive to health, and wellbeing, than a sufficiency of good exercise. An unthinking observer might at first sight exclaim: Surely the poor Soldier has enough exercise, nay often more than is beneficial to him; Is he not drilled often enough? Are not his marchings and his manoeuvres sufficient exercise for him? He would reply. To a certain extent such routine may serve as exercise, but we maintain that it alone is insufficient.

Exercise in the sense we mean here, in order to impart new vigour, to the limbs, and infuse new cheerfulness into the mind, must have some interest, and some amusement combined in it; and certainly more mechanical drill &c.

is not the proper means for this end. In many cases the Soldier retaining a lively recollection of the drudgery of his first essay in the ranks; and well remembering the dull Sergeant, and the days when

"His awkward gait, his introverted toes,  
 Bent knees, round shoulders, & dejected looks,  
 Procured him many a curse" - at last gets to regard drill, almost as a punishment, or at least as a necessary drudge, rather than a pleasant exercise, hence then it is fair to draw the inference, that this alone will not suffice for exercise, for the Soldier; he must have some pleasure in it, some stimulus to urge him to bodily exertion; some effort, in fact after distinction, say in some game, for instance, so as to bring the muscles into lively

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activity at the same time ~~at~~ that the mind is fully interested in the effort.

In order to obtain this end, a piece of ground should if possible, be set aside in every camp, for manly amusement and not only this, but the men should be encouraged, to mingle in the exercise, by the Officers, for instance, setting them the example, and every now, and then, mingling with the men in a game, from this no bad result of familiarity, or disrespect need be expected to accrue; on the contrary the Soldier's would feel a pride in distinguishing themselves, in such manly exercise, under the immediate eye of their Officers; whilst the more close intimacy, then established, would lead to a better understanding, between Officer and Man,

and perhaps in the latter, sow the seed of the best incentive to true obedience, love, and esteem, for their superior Officers.

As to the games which ought to be recommended to the Soldier, as conducive to his health, and amusement, the manly and truly English game of cricket, we think in its proper season, holds the first place, and indeed stands unrivalled.

What can be more exhilarating on a fine summer-day, or what more calculated, to add new vigour to the sturdy muscle, that has ever characterized the sons of England, than wielding again and again of the lusty bat, or the hurling with wonderful speed, the bounding ball.

It may be thought that I am here wandering from my subject, and am

writing a thesis on Cricket, but the reason I dwell so much on this point is, because I am so fully convinced of its utility, and because I think it has not received the attention and encouragement it merits. Cricket exercises both arms and legs, and thus excels as a mere exercise, many other games. but it does more than this, it calls several of the faculties of the mind, into considerable play. Each cricketer requires only to have all ~~his~~ wits about him, in batting to make up his mind in a second, what course is to be followed; and the best means of doing so, with safety - in fielding to be ever on the alert, and ready at his post, awaiting the enemy "the ball" and prepared to intercept him instantly. Cricket then habituates to constant attention and watchfulness, and is therefore peculiarly

suitable to the habits of the Soldier.

The various other games with ball, may according to option, or season be recommended. In cold weather foot-ball is perhaps best suited, for an out door exercise.

Quods?

By those who prefer it, the footrace leaping, and other such athletic sports, may with advantage be practised.

By such a happy combination, of exercise, with amusement, the Soldier will invariably, be much the better man; for in addition to the various bodily ills, a life of inactivity leads to, the idle man is proverbially a discontented one, and thus the early, and insidious seeds, may be sown of that spirit, so fatal to military discipline, insubordination,

Why is not Quods mentioned

## Diet.

There can be no doubt that diet exercises a most important influence, on the health, and efficiency, of armies, and its proper regulation requires more attention, than it has hitherto received.

The chief object to be attended to, should be to obtain a cheap and highly nutritious fare, which would be easily cooked, and the time of war easily conveyed, perhaps the easiest mode in which these desiderata, may be best combined, is by issuing a diet of good strong soup or broth, along with a sufficient quantity of bread, indeed this plan has been proved by experience, to be most advantageous in practice.

The ordinary way of issuing rations of meat, which the Soldier ~~which the Soldier~~ prepares according to his own taste, labours under disadvantages, the meat

which is intended to be divided, and ought to serve for two, or more meals, is generally cooked altogether, and eaten at once, the soldier seldom having the self denial to reserve part of it, for a future occasion; the result is evident, more food is consumed at a single meal, than is either necessary, or wholesome, and when the appetite returns at a later period, the soldier has no means ~~of~~ ~~of~~ ~~gratifying~~ of gratifying it, and as might reasonably be expected, from such irregularity, in the times of eating, as well as in the quantity taken, a confirmed state of dyspepsia, is often established.

The best way of remedying this, we think would be, to divide the men into a number of small messes, & to compel each individual, to contribute his rations to the common store.

Part of the food thus collected, should be formed into broth, with the addition of some common vegetables. The men would thus have a most wholesome, and nutritious meal, consisting of boiled meat and soup, the remainder might be treated in a similar way, for a second meal.

As to the number of meals, which the men ought to have, there appears to be some difference of opinion, some are persuaded, that they ought to have three daily; viz. one in the morning, one in the afternoon, and one in the evening.

Some object to the morning meal, as being superfluous, this however we think a mistaken notion. The better soldiers are fed, the more efficient they will be, Suscombe remarks on this subject,

"I have seen the proportion of sickness, in a corps greatly and suddenly diminished,

by the establishment of breakfast messes, which should be as regularly conducted, as the dinner messes.

It is difficult to say, what the best materials for breakfast are, but probably oatmeal porridge, and milk, are as good as anything; being cheap, agreeable, and at the same time nutritious.

Tea and Coffee, are it is true, not nutritious. still they are useful beverages, and it has been thought, they possess the power of arresting, the progress of Fever.

The subject of intemperance, in connection with our Army, is one of very great importance: for probably in our Army, more than in any other, are the men ~~addicted~~ addicted to this vice, and any suggestion, that might lead to happy results, in this particular, would indeed be a boon, of immense mag-

introduce, both to the Army, as well as to the Nation at large. Intemperance is a habit, which continually leads the men, into excesses of every description, and tends much, to subvert the necessary habits of discipline.

Putting out of view, the bad effect on the constitution, or morals, it will be found, that a drunken regiment is almost always a bad and disorderly one. The evil example once set, is but too soon followed, and it requires, the strictest government, to moderate the vice.

To remedy this evil, two plans widely different in their nature, have been suggested, the first, advocates the plan, of paying the Soldiers their allowances daily, instead of permitting them, to accumulate for weeks or months at a time.

The second, ~~recommends~~ recommends the -

establishment of Saving-banks, so as  
 to afford an inducement to the men,  
 to lay up any spare money, they may  
 have at their disposal; we do not pre-  
 tend to say, which of the two methods  
 specified, would be the preferable plan,  
 probably both would prove beneficial.  
 The practice of permitting, the balances  
 to accumulate, for a length of time,  
 has a most prejudicial effect, on the  
 morals of the troops, for in this way, a  
 large sum of money comes into their  
 possession, at a time, and after they  
 have been long without any, at their  
 disposal, and the temptation to spend  
 it, in intemperate living, generally proves  
 too strong to be resisted, as a result it  
 invariably happens, that after each  
 periodical payment, a wound of  
 dissipation is begun, that is most in-  
 jurious to the Soldier in every way?

We think it would not be difficult, to alter this system, for the better, if the men's pay was issued daily, these periodic excesses would be avoided, and the general intemperance decreased.

The institution of savings banks, would have much the same effect, the men might without much difficulty, be encouraged and advised, to lay by any surplus, they might have, and in this way besides the advantage of preventing them, having loose money at their command, a sum would gradually be collected, which would be of the greatest value, to them when retiring from the service.

- Troops in Camps, Billets, & Banacks -  
 In selecting a site for a Camp, the Surgeon has many and important matters, to bear in mind, in fact, there are few duties, which he has to perform, that require greater acumen, and attention. Above all things, he should carefully avoid a marshy district, especially if the station, is likely to be a permanent one. If however necessity compels an Army, to encamp in such districts, drains should be made as soon as possible, and in fact every means should be used, to render the place, as little injurious as possible -  
 If circumstances permit, a choice of ground for incampment, a gentle declivity is a most desirable position, but of course, it is essential that a sufficient, and easily accessible quantity of water, can be procured. In spite

of every precaution; Camps are apt to become dirty, and unhealthy, and experience has sufficiently shown, that in such cases, the best plan is to remove the tents from time to time, instead of ineffectually attempting, to remove the nuisance from the Camp.

The system of billeting, is any thing but a desirable mode of accommodating troops, since it gives the men too great opportunities, of indulgence, and withdraws them, from the immediate eye of the Officers; but it sometimes happens, that it is the only plan of accommodation, that can be adopted, and in such cases, the Medical Officer ought to use every endeavour, in his power, to mitigate its evils.

He ought as far as possible, to have the men billeted in healthy localities, and in proper apartments; the billets should

be visited and reported on by the Surgeon, before the men are permitted to use them, and every thing that is possible, ought to be done, to promote the comfort of the men in such situations, and an especial watch, should be kept over them, in order to prevent them, running into any kind of excess.

Barracks are universally admitted to be, by far the most advantageous accommodation, in every way, for Troops in Home service, The general health of the men, their morals and the strict military discipline, which is so necessary, for the efficiency of troops, can be more easily, and better attended to, when the men are collected together in this way.

It is a matter of regret, that a general plan, does not exist, after which all barracks might be constructed, subject

of course to modifications, arising from situation, and other circumstances. Mr. Quatman, many years ago, first suggested, a general plan for the erection of barracks, which unfortunately has never yet been adopted, although it has once and again, been brought before the authorities for consideration.

Much useless expenditure is incurred through the present system, and in consequence, of the erection of the building being entrusted, entirely to Architects, sufficient regard is seldom, or never paid to that most important consideration, ventilation; and many other points, essential to the health of the men, which might have been obviated, had the plans been submitted to the approval of intelligent medical men, are altogether neglected.

I think a committee, consisting partly

of Medical Officers, and partly of Engineers, might easily arrange, some good general plan.

It would of course be necessary, to have different plans, for different climates, in which we have occasion to construct barracks, as it is evident, that a building exceedingly well adapted for this country, might be very inappropriate for a hotter climate.

A good barracks should be large and commodious, all unnecessary ornaments should be strictly avoided, not only for the sake of economy, but also, as has often been witnessed, lest the comfort of the men should be interfered with, by the means adopted, for securing the beauty of the building.

Ventilation, should of course be efficient, and for this end, many and widely diff.

plans. have been proposed, so many in fact, that it is difficult, to select the most preferable one.

In Sir Geo Ballingalls work, there is detailed an excellent plan, one which possesses several obvious advantages, which over many of the more complicated plans. It is simple, and economical, and not liable to get out of order, and may very easily be applied to existing barracks, where proper means of ventilation, have not been attended to.

The chief features of this plan are, that the vitiated air, shall be constantly leaving the Apartments by apertures, on a level with the Cornices of the building, while pure air is at the same time, entering below to supply its place.

The apertures ought to communicate, (if the situation of the Apartment allow of such an arrangement) directly with

the external atmosphere, or if not, with  
lobbies, which are constantly supplied  
with fresh air.

This plan possesses also a great ad-  
-vantage, in not being under the con-  
-trol of the Soldiers, it may also be  
easily arranged, so as to allow the  
Medical officer to admit more or less  
air, as he thinks fit.

The old Surgical wards of the Edin-  
-burgh Infirmary, are constructed more  
or less, after the above plan, and every  
one who has been privileged, to study  
in this University, are aware how partic-  
-ularly well ventilated, those wards are,  
and perhaps there are few, so generally  
healthy as they.

The great fault of most systems of  
ventilation is, the want of attention to  
scientific principles, the natural tendency  
of heated air is to rise, but most Modern

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plans attempt, by cumbrous and exp-  
-ensive contrivances, to introduce the  
fresh air from above, and force out  
the expired air, below a direction,  
directly opposite to that, which it  
would naturally follow.

In banquets, where a number of men  
are collected, often crowded together, it  
is of the greatest importance, to give  
due attention to cleanliness; the wards  
should be whitewashed frequently, and  
the floors ought to be scrubbed, for this  
purpose, some dry material should  
be preferred to soap and water, which  
are apt to be injurious, from the moisture  
they produce.

Perhaps, it would be advisable, to have  
more rooms than what are absolutely  
necessary, for the accommodation of the  
troops, so that when a room requires a  
thorough whitewashing or cleaning, the men

might be removed, to one of the vacant apartments, and in this manner, avoid the risk they would have otherwise have to undergo, by sleeping in a damp room.

Of course, it is of great importance, when about to erect barracks, that a proper and healthy locality be selected, for the building, it should if possible, be a situation that has a good exposure, is well sheltered from the severity of the weather, and if possible, in a place which has been proved by experience, to be healthy.

Accommodation of Troops in the time of war.

When men are defending the rights of their Country, at the risk of their lives, surely an especial care should be taken, to make their abodes as comfortable, as existing circumstances will permit.

Until lately, when an Army was actively

engaged, the usual mode of lodging the men in tents, was generally adopted, and indeed, this was considered the best temporary, and moveable habitation.

During the late Campaign, however, a much superior means in every respect, was suggested, by our gallant Allies, the French. He refers to the plan, of lodging the troops in portable huts.

The success of this new method, was undoubtedly immense, as was most strikingly proved, by an immediate improvement in the health of our Cuman heroes, when the huts arrived, and replaced the tents, in which they had formerly been lodged. Those huts hitherto used, by our Army have been formed of wood, but probably, it would be cheaper, and better in every way, if they were constructed of Iron or Zinc.

The French in ~~the~~ the late Campaign,

arranged their huts, in the form of a village, regular streets were formed, and in this way, they were able to arrange the different divisions, so methodically, that no difficulty was experienced in finding at once, the locality where any particular corps of men were stationed.

Of course in this case, as in the building of huts, a proper regard should be paid, to the locality to be selected for the site. If possible it would be advantageous, to have the huts near a running stream, not only for the purpose of affording drink for the men and cattle, but also as rendering means for maintaining the huts themselves, in a state of cleanliness, which it would be otherwise difficult to do.

The near vicinity of wood for fuel, is a matter also to be attended to.

It not unfrequently happens, in the time

of war, that we do not possess the choice of situation, but are compelled to pitch our Camp, in a place we know from analogy, must be unhealthy.

In such cases, it becomes our duty to be redoubled in our attention, to general sanitary regulations, and so attempt to compensate for the unfavorable situation, in which the exigency of war has placed us in.

George Wood.

