

Military surgery : Dr Ballinghall's lectures / by George Ballingall.

Contributors

Ballingall, George, 1780-1855.
Royal College of Physicians of Edinburgh

Publication/Creation

London : printed by Samuel Bentley, [1830]

Persistent URL

<https://wellcomecollection.org/works/g9neujn3>

Provider

Royal College of Physicians Edinburgh

License and attribution

This material has been provided by This material has been provided by the Royal College of Physicians of Edinburgh. The original may be consulted at the Royal College of Physicians of Edinburgh. where the originals may be consulted.

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>





MILITARY SURGERY.

DR. BALLINGHALL'S LECTURES.*

(PUBLISHED IN THE UNITED SERVICE JOURNAL FOR JUNE 1830.)

"CAMBYSES said to Cyrus, medical officers employ themselves chiefly in treating the sick and nursing the infirm; they would be much more usefully employed if they would devote their attention to the means of preventing disease, and of checking its progress among troops."—We cannot too strongly express our concurrence with this opinion, and therefore congratulate the army on the publication of these lectures, which contain an outline of the measures which ought to be adopted, with the view of promoting the health and efficiency of an army. A complete code of instruction on this branch of the duty of a medical officer, would embrace the following leading topics:—General principles of the recruiting of an army, including the period of engagement, &c. &c.;—Minimum and maximum age of recruits;—The qualities of recruits required for different branches of the service, as the infantry, cavalry, or artillery;—Medical inspection of recruits;—The peculiar attentions which should be devoted to the care of recruits;—The provisioning of troops. This is a very important subject, and deserves the most careful consideration; it ought, of course, to embrace fully, and in detail, every essential fact in regard to the quantity and quality of rations suitable in different climates; as also the hours of repast, and the best mode of dressing the rations, and cooking utensils. The clothing of soldiers, in as far as health, comfort, and convenience are concerned,—connected with this topic, is personal cleanliness, a measure intimately related to health. The construction of barracks—Barrack equipment—Hospitals and hospital equipment—General principles of military discipline—punishments—duty—amusements—marching—means of preserving health in the field—encampments—bivouacks—the embarkation of troops—the influence of climate upon the health of soldiers, and the best means of preventing hurtful consequences—the duty of discharging soldiers on account of disabilities, and of assisting in awarding to individuals a recompense in proportion to the claims they may have upon the country.

Dr. Ballingall's work embraces a great number of the topics which we have enumerated: and we trust he will find an opportunity of further extending it, and of discussing some of the subjects merely glanced at for the present more in detail. Dr. Ballingall will recollect that he fills the only chair of military surgery in this country, and that to him, particularly, the army have a right to look for instruction upon the means of preserving the health of soldiers. His talents, his industry, his success as an author, and, perhaps, above all, his experience of the duties of a medical officer in a tropical as well as in a temperate climate, eminently qualify him for the task. His present work does him infinite credit; it is full of important facts and observations, with which not only medical, but all classes of officers of the army ought to be intimately acquainted. We are aware that some individuals, even of the medical profession, endeavour to undervalue the importance of lectures on military surgery, and the means of preserving the health of soldiers: the best conclusion we can come to on this point is to infer, that they never had any practical acquaintance with this subject respecting which they venture to give an opinion.

"The author's principal object in committing these lectures to the press, is to enable him to refer his pupils, particularly those who are late in entering, to a concentrated view of the subjects embraced in this introductory division of the course, founded upon acknowledged principles, divested of technicalities, which young men, strangers to the service, cannot possibly understand, and unincumbered with details, which it is not only

* Introductory Lectures to a Course of Military Surgery, delivered in the University of Edinburgh. By George Ballingall, M.D., F.R.S.E. Regius Professor of Military Surgery, &c. &c.

impossible to bear in mind, but which are liable to be varied from time, according to circumstances, or even to the caprice of individuals. He is also desirous, by the publication of these lectures, to leave himself more unfettered, and to be enabled to devote an increased share of attention to subjects more strictly professional, particularly to the consideration of wounds, and of those other accidents and diseases which form the great body of his course. In conclusion, he would avow a like motive to that which so worthily actuated one of his learned colleagues upon a similar occasion; he is desirous of proving to the public, and, above all, to that distinguished statesman, whose disinterested patronage placed him in the chair he fills, that he has not been inattentive to the duties which it imposed upon him."

These lectures are five in number. The first chiefly consists of historical notices of the principal writers on military surgery. The list of authors is full, and strict justice is awarded to the labours and merits of each individual. But, as the Professor states—

"Military surgery, as it now exists, is so essentially the creation of the late war, its principles, however, have been so fully established, and its future practice must be so much influenced by the experience acquired in the recent campaigns, that no great or extended research can be necessary to enable me to lay before you such information as may qualify you to practise military surgery, with credit to yourselves, with benefit to your sick and wounded comrades, and with advantage to the state."

The Professor commences his second lecture, by calling the attention of his pupils

"To some of those points in the physical constitution of individuals which best qualify for the duties of a soldier, and to advert to some of those circumstances in the accommodation and equipment of troops, upon the due regulation of which their efficiency and exemption from disease depends."

The selection of recruits forms a very important part of a surgeon's duty, "*An army raised without proper regard to the choice of its recruits, was never yet made good by length of time.*" (Vegetius.) The peasant is much more likely to become a healthy efficient soldier than the artisan, or the reduced and often vicious inhabitant of a great city. The worst recruits we ever saw came from the barracks. A very small proportion only of the children of soldiers reach the age of manhood, and those who do survive the privations they undergo, are commonly stunted in their growth; frequently scrofulous, and as to their morals we shall leave that point to the imagination of our readers. "*Le besoin, les privations, la misère détruisent rapidement l'existence. L'homme n'a pas d'ennemi plus redoutable que la maladie, et qu'est à qui la misère sinon une maladie continuelle?*" When a recruit possesses the requisite marks of strength and a sound constitution, we should not be extremely scrupulous in regard to his height, as it is of much more importance that he should be strong than tall. One remarkable fact in the natural history of man may be mentioned as it is in connection with this subject, namely, that the mean height of the inhabitants of towns is greater than that of the inhabitants of the country, particularly under twenty-one years of age. To be an efficient soldier, it is essential that a man should have muscular limbs; in other words, that he should be able to endure the fatigue incident to long marches. Marshal Saxe, with truth asserted, that many a battle was won by means of the legs. Before a Roman conscript was finally approved, he underwent a probation of four months, for the purpose of ascertaining whether he was in all respects fit for military service. When, at the end of that period, it was satisfactorily proved that he had sufficient activity and strength, calculated to enable him to surmount the hardships of a soldier's life, and if at the same time it appeared that he possessed the requisite mental capacity, and a due degree of military courage, he received the military mark which was indelibly imprinted on the hand, either by a hot iron or by other means.

In regard to the minimum age of recruits, we are glad to find that the Professor reprobates the practice of "enlisting boys before their growth is completed and their constitutions formed." Prior to the age of twenty or twenty-one, few individuals possess the requisite physical power calculated to enable them to

accomplish the exigencies of military service. Until a recruit has attained the age of manhood, a medical officer is unable to decide, with any degree of confidence, in regard to his prospective efficiency. Previously to the age of twenty, nature is employed in perfecting her work, and although a certain degree of exercise is conducive to health in adolescence, it is certain that a youth requires more food and sleep than the perfect man, he is at the same time less able to endure the fatigue of drill. The privation of friends, physical and mental excitement, are debilitating influences, which are much more felt by the youth than in more advanced life. Young lads are peculiarly susceptible of consumption and other diseases of the chest. Persons who have been three or four years at a trade, or some regular occupation, make much better soldiers than mere striplings. They assume military habits, and they conform with more ease to the system of diet, and the restraint necessary to subordination; having more experience, they are commonly more careful of their health, and less disposed to brave the causes of diseases. When indisposed, they give more aid to a medical officer in his curative measures, by better attention to the means recommended for their recovery. "Growing lads" are commonly spoken of in terms of recommendation by recruiting officers, chiefly, perhaps, because they may generally be engaged a little under the standard height, but we should never wish to see a recruit approved until he is fully grown. The period at which a man attains his full height, is very different in various individuals. During the greater part of the last war, the minimum height of conscripts for the French army was five feet one inch, English measure, and this height was frequently not attained until twenty-two or twenty-three years of age.

"Si nous sommes sages, nous exigerons que nos recrues aient au moins dix-huit ans; et sans doute nos neveux plus sages que nous exigeront qu'ils aient atteint leur *vingt-unième* année."—*Art. Engagement, Ency. Meth.*

We shall make no apology for extracting a short paragraph on this topic from a work lately published in France under the following title:—"De l'Opération Médicale du Recrutement, et des Inspections Générales. Par A. G. Coche, Chirurgien-Major."

"On voit par cet exposé qu'à dix-huit ans la santé du jeune homme est sans cesse compromise; qu'il trouve au dehors comme au dedans de lui mille sources de maladies plus ou moins graves; et qu'en cet état il ne saurait présenter assez de garanties réelles de son existence pour faire un soldat dans toute l'acceptation du mot; les armées recrutées d'hommes trop jeunes se dépeuplent bien plus par les maladies que par le feu de l'ennemi."

The Professor gives us a quotation from Dr. Luscombe's work on the Health of Soldiers, where it is said, that "a corps or army would be very considerably more healthy and efficient, if all men under twenty were excluded, and recruits admitted of *forty* or *forty-five* years of age." To enlist men at forty or forty-five would be an admirable plan to speedily recruit the pension list. A man at forty-five may no doubt be able for certain duties, but how long will he remain so? No; the period during which a man may be expected to be able to meet the exigencies of military service, is between twenty and forty years of age: under twenty few individuals are able to undergo the fatigue incident to a soldier's life; and above forty, but a small proportion of an army is both able and willing to execute the various duties to which soldiers are liable.

Our author next insists upon "the importance of wholesome diet to the preservation of health, and its efficacy in resisting the inroads of disease." His remarks on this subject are judicious and appropriate. He seems to think that "breakfast messes are not yet universal in the army." Now, we are of opinion that breakfast is recognised as a regular meal in all, or very nearly all, the corps in the service. Dr. B. will be glad to learn, that a successful attempt has been made to establish a third meal, namely, a "coffee," or supper, in some corps. The men generally approve of the measure, and the prevalence of intemperance has been checked by it. The following are the items required for supper to ten men in one corps, and the price each cost last November.

	s.	d.
Bread, 5lbs. at 4lbs. for 7d.	0	8 $\frac{12}{16}$
Coffee, 3 $\frac{1}{2}$ oz. at 1lb. for 2s.	0	5 $\frac{4}{16}$
Sugar, 9 oz. at 1lb. for 7d.	0	3 $\frac{15}{16}$
Milk, 1 $\frac{1}{2}$ pint,	0	2 $\frac{4}{16}$
	1	8 $\frac{3}{16}$

The coffee is prepared by half-past six o'clock in winter, and half-past seven in summer. We could wish to see some general rule established in regard to the messing of soldiers; the system would admit of being made more uniform.

The intemperate use of spirits has always proved a bane to the British service. Of the destructive effects of dram-drinking, Dr. Rollo has recorded a remarkable instance. The 45th regiment, while stationed in Grenada, lost within a very few weeks twenty-six men, out of ninety-six sick. This circumstance was the more remarkable, as the island was at the time considered healthy. Upon an investigation into the causes of the mortality, it was discovered that the common breakfast among the men was a glass of raw spirits with a slice of broiled salt pork. Arrack and bread is not an uncommon breakfast among the European soldiers in India. It is chiefly upon foreign stations that the ruinous consequence of excesses amongst the soldiery are conspicuous, and perhaps there is no situation where it is seen in a more deplorable shape than in India. When in a state of brutal intoxication, soldiers often lie exposed to the ardent rays of a vertical sun, the parching land winds, or the night dews, all fertile sources of disease in that country. Under such circumstances, they are frequently subjected to the ridicule and even the insults of the natives, so that it appears to our author a matter of surprise that our hold of the country has not been materially weakened by the dissipated character of the European soldiers. The cheapness of the necessaries of life in India, gives a soldier the command of a considerable amount of superfluous cash, which he commonly employs in the purchase of spirituous liquors. Another evil of a similar kind used to exist, for we cannot speak positively in regard to recent arrangements, namely, the low amount of hospital stoppages; and hence, when a soldier was discharged to duty, he received a large balance of pay; the consequence was, that he frequently entered upon a course of dissipation, which very probably ended in a relapse of his former complaint, or perhaps a new one was contracted by an unguarded connection with the first prostitute* he met. Perhaps he neglected his duty while in a state of intoxication, or in the state of excitement became insolent to his officer,—either event led to his confinement, to his subsequent punishment, and to his being transferred to the hospital, where he lay till a similar balance became due, went out and acted a similar scene over again. To such an extent is the baneful practice of intoxication carried by the soldiers in India, that numerous instances of madness, of maiming, of suicide, and of murder, occur in consequence. We recollect a remarkable instance of suicide, in as far as the means of effecting it are concerned, having taken place during a state of inebriety. A soldier was found dead upon his cot and bathed in blood; after finishing the arrack contained in a quart bottle, the man had either by accident or design fractured it, and by means of the fragments committed suicide, by dividing some of the large blood vessels in the neck. The excesses, irregularities, and atrocious crimes which have occurred in the army in India, in consequence of intemperance, are indeed generally well known.

In a General Order issued by Sir Thomas Hislop, under date, Madras, 20th

* Things are differently managed in the Prussian army, where "Un soldat qui est attaqué de maladie Vénérienne reçoit cent coups de baton en sortant de l'hôpital," and no doubt this measure operates in diminishing the number of candidates for admission into hospital.

October, 1818, the Lieutenant-General states, that he "cannot too strongly deprecate the shallow argument of pleading intoxication in mitigation of guilt, for experience has demonstrated that drunkenness is the prolific source of almost every crime that is committed by the soldiery in this country. Since the institution of the Recorders and Supreme Courts at Madras, no less than thirty-four British soldiers have forfeited their lives for murder, and most of them were committed in their intoxicated moments." During the short period when the men of the — regiment were permitted to volunteer, upon the corps being about to leave India for this country, three men died from the immediate effects of large potations of Arrack. To check this destructive habit, Dr. Ballingall recommends "the regular establishment of tea, or in situations where the abundance and cheapness of provisions render it practicable, of three meals a day, and the frequent payment of the soldiers' balances." The Professor does not appear to be aware that the balances of the infantry regiments are now paid daily instead of monthly. When Dr. Ballingall was so well acquainted with the atrocities and loss of life occasioned by the abuse of spirituous liquors, we are surprised he did not include a proposition to abolish the issuing of spirit rations, among his means of checking the destructive habit of intemperance. We have not space at present to discuss this subject fully, but we feel confident, that to the imprudent measure of issuing spirits as *an indispensable article of diet*, under all circumstances, tens of thousands have sunk into a premature grave. In 1824, the quantity of spirit rations usually issued to the seamen in the Royal Navy, was diminished *one-half*; and if we are correctly informed, the American Government has lately passed a law permitting and encouraging the seamen to commute their spirit rations for money or articles of diet. These are highly laudable examples. We could have wished that the Professor had lent his powerful influence to combat some of the erroneous opinions entertained regarding the use of spirituous liquors. Among these erroneous notions may be mentioned—

1st. The opinion that spirits contribute to enable men to undergo great fatigue.

2dly. That the free use of spirits fortifies the human system against the effects of disease, and prevents the influence of the cause of endemic fever in tropical climates. On this subject, Desgenettes, in his Medical History of the French Army in Egypt, observes, that "daily experience demonstrates that almost all the soldiers who indulge in intemperate habits, and that are attacked with fevers, never recover; nay, we may go still farther, and say that they have been more liable to an attack of the disease." This opinion is, we believe, consonant with the experience of observing medical officers of the British army.

3dly. That the injurious effects of the intemperate use of inebriating liquors are chiefly to be attributed to the quality of the liquor, rather than to the quantity, or the unintermitting regularity with which it is swallowed, namely, what is in India called "bad spirit," "Pariah Arrack." Now, what is Pariah Arrack, but spirits not mellowed by age? New spirit is perhaps more likely to disagree with the stomach than that which is older; but mellow spirits, regularly imbibed in considerable quantity, will convert the tippler into a drunkard, and the drunkard into a sot, as effectually as spirits drunk hot from the still.

The third lecture treats of the accommodation of troops in camp, in barracks, and in billets.

4th. On the site, construction, and ventilation of hospitals, &c. &c.

5th. Means of transporting sick and wounded.

The Doctor evinces an intimate practical acquaintance with the subjects discussed in these lectures, as well as with the best authors who have written upon the means of preserving the health of soldiers. Our limits will not permit us to extend our remarks upon this valuable publication; we shall, therefore, conclude by observing, that it ought to be in the possession of every medical officer of the army, and that commanding officers should be intimately acquainted with its pages.

The history of the city of London, from the first settlement of the Britons, to the present time. The city of London, the metropolis of Great Britain, is situated on the banks of the river Thames, and is one of the most ancient and populous cities in the world. It is bounded by the river to the south, and by the city walls to the north, east, and west. The city is divided into four wards, and is governed by a mayor and aldermen. The city is famous for its commerce, its manufactures, and its learning. It is the seat of the British Parliament, and of the University of London. The city is also famous for its churches, its hospitals, and its public buildings. The city is a great centre of trade and industry, and is the most important city in Great Britain.



