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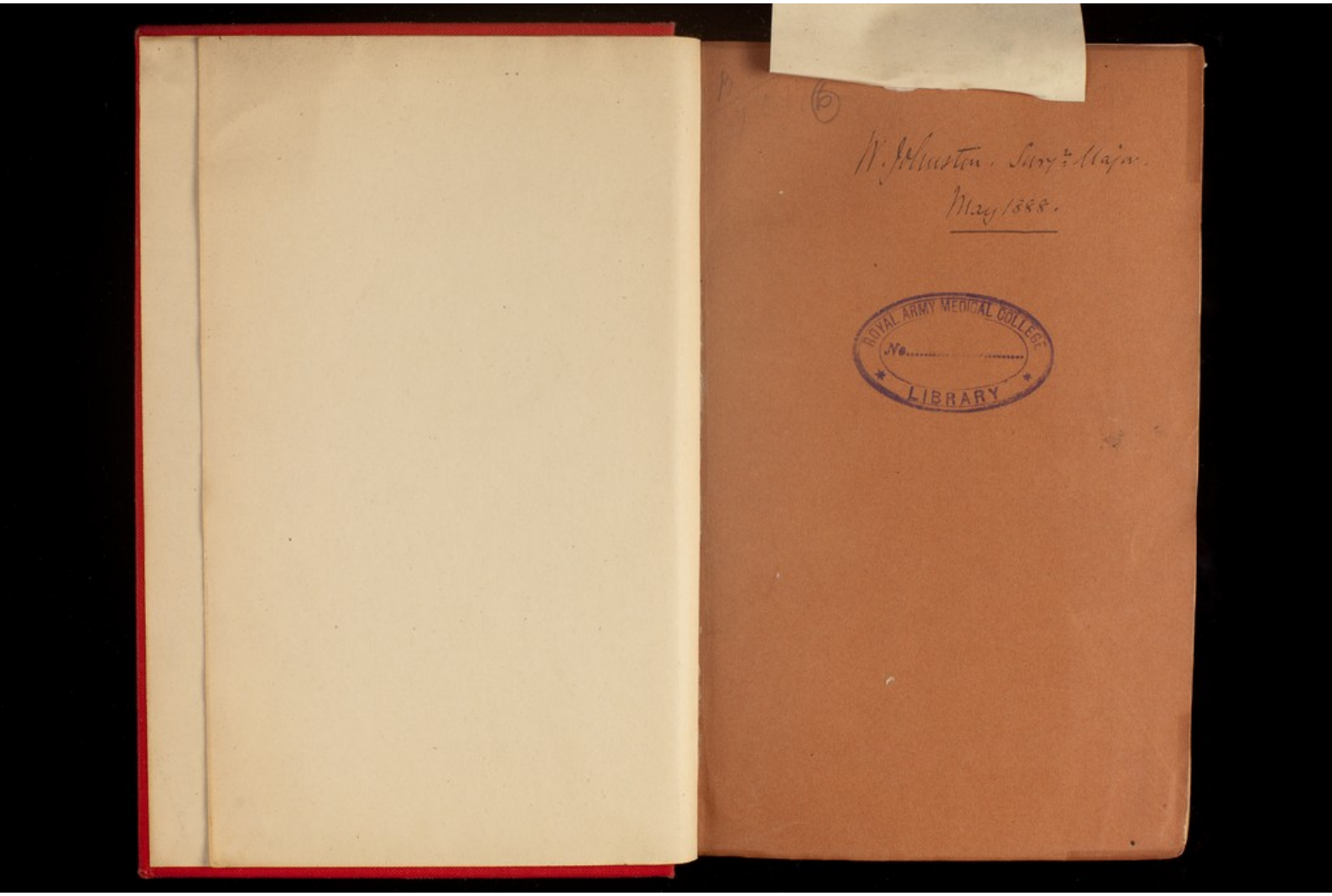

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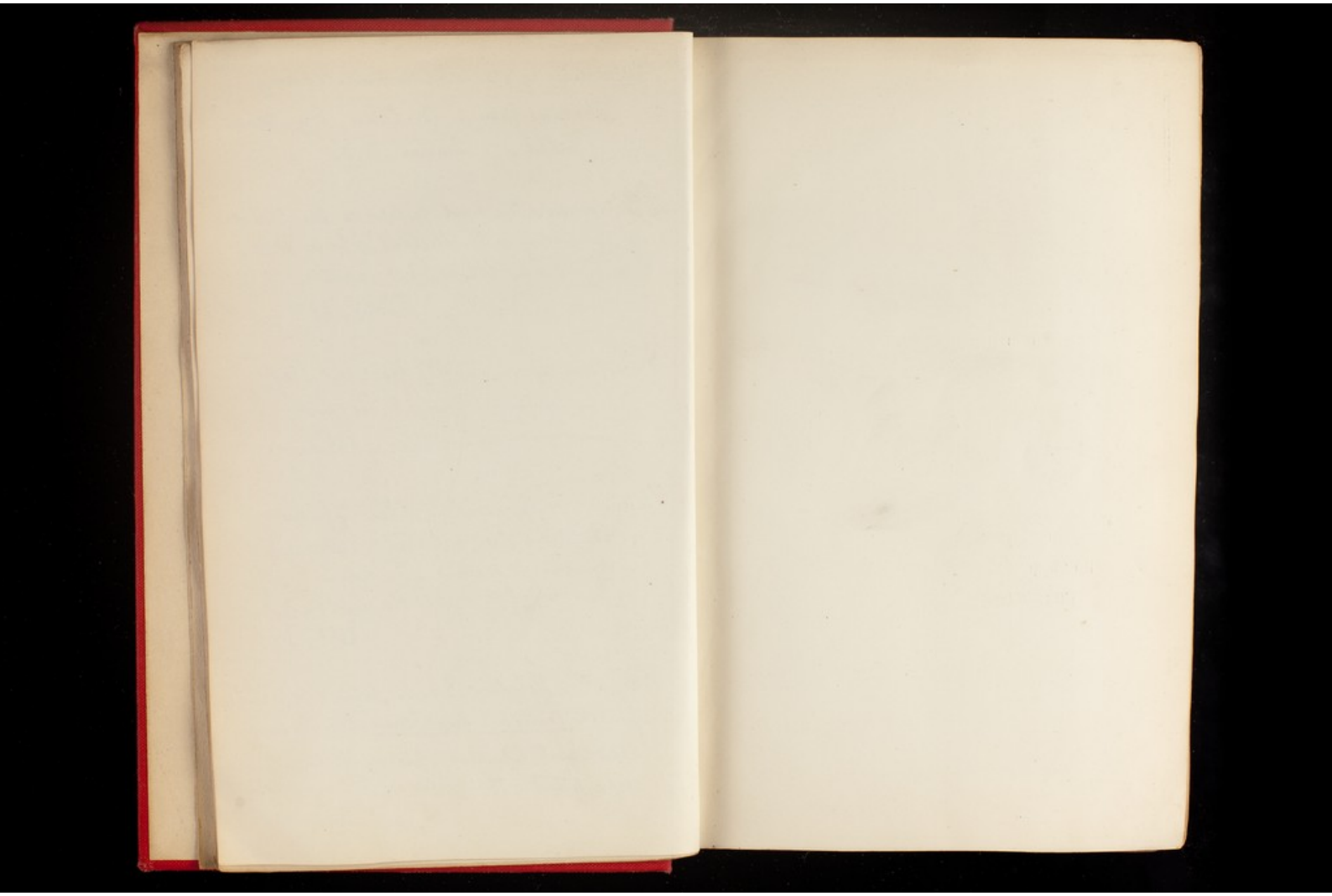

ARMY MEDICAL ORGANIZATION (1)

A COMPARATIVE EXAMINATION

OF THE

REGIMENTAL AND DEPARTMENTAL SYSTEMS

BY

SURGEON MAJOR G. J. H. EVATT, M.D.
ARMY MEDICAL DEPARTMENT.

FOURTH EDITION.

LONDON
J. & A. CHURCHILL
11, NEW BURLINGTON STREET
1883

THE FOURTH EDITION OF THIS PAMPHLET

Is Dedicated

TO THE MEMORY

OF MY DEAR FRIEND AND COMRADE

GEORGE SHAW,

SURGEON MAJOR, ARMY MEDICAL DEPARTMENT,

KILLED IN ACTION AT KASSASIN

DURING THE EGYPTIAN CAMPAIGN OF 1882.

G. J. H. E.

WOOLWICH;
Dec., 1882.

PREFACE TO THE FOURTH EDITION.

The scheme of army medical organization known as unification, or the general, divisional, or non-regimental system, was introduced into our army in1873, in a modified form, by Mr. Cardwell, one of the greatest war ministers England has ever seen.

This system was further developed in 1876 by Mr. Gathorne Hardy, the then War Minister, on the broad lines laid down by Sir William Mure Muir, the then Director-General of the Army Medical Department.

Contrary, however, to the opinion of every officer in the military medical service, from the highest to the lowest, the system, in itself intrinsically good, was linked with the fatal rule that medical officers should in future enter the army for ten years' service only.

This extraordinary proviso left the medical service for some years absolutely without any candidates, and as a consequence caused serious difficulties from sheer want of medical officers at home, abroad, and in the field. These difficulties were in no way the necessary consequences of the new medical system, but mainly the result of the unfortunate proviso above referred to.

In 1879 a new warrant was issued abolishing the proviso of 1876, and materially increasing the pay and status of the department.

The lines laid down by Sir William Muir for the organisation of the medical service are so good that it is unlikely that any improvement on them can be made, but the many lessons in detail learned from the experience of the African, Transvaal, and Affghan wars are now available to fill up and perfect the scheme. Every campaign teaches us some new lesson in organization, and the officers who served in these African and Affghan wars are now arrived home and are able

to give their experiences; and the only pity is that it was not possible before the outbreak of the Egyptian war to have utilised the lessons of Affghanistan and the Cape.

In the chapter headed "The Wants of the Medical Service," I have attempted to formulate the experience gained in the field, and it only goes to prove the necessity of carrying out with more thoroughness the ideas of the original founder of the system.

G. J. H. EVATT, M.D.,
Surgeon-Major, A.M.D.

Royal Military Academy,
Woolwich; *December*, 1882.

ARMY MEDICAL ORGANIZATION.

SECTION I

INTRODUCTORY

I propose, in the following pages, discussing the question of the organization of the Medical Department of the British Army, and further to offer some remarks on the present requirements of the same branch of the service. I propose to treat the subject in a clear and simple manner, avoiding all technicalities, and from such points of view as will commend themselves—1*st*, to England and the common sense of the country; 2*nd*, to the military officers of the army; 3*rd*, to the medical officers of the army; and 4*thly*, to the members of the medical profession at large, whether professors, teachers, or practitioners in civil life. For a definite settlement of this question of organization, it is necessary that all these sections should be in accord on the subject, and I feel convinced that it is perfectly possible for a clear and well-defined understanding to be arrived at satisfactory to all.

It is only by thoroughly sifting this question that a satisfactory settlement can be arranged, and if, in the pages that follow, any statements are made that may appear unpleasant, it seems to me better that at all costs facts should be plainly stated, and not in any way glossed over, than that a rose-coloured picture should be painted, pleasing to the eye but utterly false in every other way.

2. To each of the four sections before mentioned, the question of army medical organization is deeply interesting. To England, more than to any nation in the world, is the thorough efficiency of her medical service essential. Not only are her soldiers obtained with great difficulty and maintained at vast expense, not only has she to attract the volunteer instead of compelling the conscript, but in addition to all this her soldiers are scattered over a widespread empire, garrisoning posts in every possible climate, and exposed not only to war risks, but to every possible variety of disease.

Not Germans, nor Frenchmen, nor Austrians are exposed to sickness as our soldiers are exposed, and Russia alone can compare with us in

the extraordinary chances that send our men from Halifax to Peshawa and Meean Meer, and from Bermuda and Jamaica to Hong-Kong and the Cape. Apart from all field service, our soldiers are daily fighting in a campaign with tropical climates and acute diseases such as are never heard of in other European armies, and to assist these men in their struggle with disease, an efficient medical corps is most essential. England, too, demands for her sons, who are serving her in every quarter of the globe, an amount of care and attention such as the Governments of foreign nations rarely think necessary for their less valuable material; and if the English soldier has been valuable in the past, he will be, if anything, more valuable in the future. It behoves England, therefore, to give full consideration to her army medical service, and to force alike on her military and her medical servants such efficient organization as the good sense of the nation demands.

3. To the military officers of the service the subject of medical organization is of the utmost importance. Not only for their own sakes, but, for the sake of the *morale* of the men, it is essential that the medical service be thoroughly good of its kind and in every way efficient.

Every great captain of the art of war, and indeed every soldier who really deserved the name, has not failed to note how important an aid it is to the well-being of an army that their treatment in sickness, or when wounded, should be thoroughly good, and military history is full of examples of the care and attention bestowed by famous soldiers on the medical organization of their armies, and of the disasters and utter breaking down of efficiency and discipline when these essentials were neglected. It is a subject which cannot be ignored, and it is most important that the military officers should have clear and distinct views on the subject. The opinions of the leading minds of the English military service, and the routine and organization of foreign armies on this subject, should all be studied, and whatever system is based on such support, should receive their ready acceptance.

4. To my brother-officers of the Army Medical Department this subject of medical organization is simply vital. Their comfort, their efficiency, their readiness for service alike in field and quarters, is wholly bound up with it; and if we are to hold our own in comparison with other armies, and if we are to avoid disaster in future campaigns, we must go thoroughly into the subject of organization and seek out what is best in every way from the various competing systems. If we do not, certain failure awaits us in the field, and comparative inefficiency in ordinary barrack life.

5. To the medical profession in civil life, and to the teachers and professors of the various medical colleges, it is essential that the question of the position, the organization, the aims and drawbacks of the medical officers of the army, should be presented in a clear and easily-understood manner, free from all military technicalities, so as to enable them to first grasp the subject themselves before they undertake to advise the young members of our profession on their choice of the different paths of medical work presented to them.

6. It is needless to say that the army, both in the military and its medical branches, has been for some years divided into two schools of

thought on the question of army medical organization, one party supporting the system called regimental, the other standing by unification or departmental views; and in the following paragraphs both will be compared and fully dealt with, the good and bad points of each chosen out, and a definite conclusion arrived at. Afterwards some questions bearing on the condition and future of the army medical service will be discussed.

We shall deal with the various sections in the following order:

A.—The regimental system.
B.—Its supposed advantages.
C.—Drawbacks of the regimental system.
D.—The unification system.
E.—The wants of the medical service.

SECTION II

THE REGIMENTAL SYSTEM

7. It seems needless to say that to properly understand the question of the medical system of an army, one must first understand its military organization. Both are entirely bound together, and the medical organization of an army must bear a distinct relation to its military system.

The earliest records of our English military system all show that it was thoroughly a regimental one.

English military history points out that during the century and three quarters in which the English army has existed as a force, it, until 1871, existed as a series of detached regiments, a certain number of which garrisoned the home stations, and a great number of which were scattered about in single regiments and detachments over the face of an enormous empire. India and Canada were full of far-detached stations, each consisting of a single regiment. The West Indies, in like manner, was so garrisoned. Australia, New Zealand, the Cape, Ceylon, the Ionian Islands, were all so occupied; and forty years ago, if one wanted to find an English garrison consisting of a group of four or five battalions, Gibraltar and Malta were the only ones that could be pointed out. At home, Portsmouth, and perhaps Dublin, were the only large garrisons, and, as is well known, the other military stations were held by single regiments, and in very many cases by small detachments.

These regiments had no territorial connection whatever beyond the faintest shadow of a name. They had no reserves. They were as strong as the men actually present with the colours made them, but

no stronger. If war was declared they enlisted locally what raw material they could, but in those days a regiment was a definite unit never varying, and the army was not only a long service army, but for many years a life service one.

We shall show further on that in 1871 a radical change took place in our military system, and the old organization, which was in every way a feeble one, disappeared.

8. Corresponding in every way to the military organization the medical organization of the service in those days was wholly regimental, and remained so until 1873, when the departmental system was introduced. What is then the regimental hospital system?

It was a system by which the sick and wounded of the army were treated in separate regimental hospitals, each an adjunct of either a regiment, battalion, battery, or detachment, the military commanding officers of which were responsible for their efficiency. The medical officers who treated the sick were themselves specially commissioned for each regiment, wore its distinctive uniform, and confined their duties to treating the corps sick only. However numerous the various battalions or batteries in a garrison were, each had their own little hospital, wholly separate and distinct from every other corps in the garrison, whether as regards buildings, offices, instruments, medicines, medical officers, or sick attendants. The responsibility for the order and interior economy of these hospitals rested solely with the regimental or battalion commanding officer.

9. To the medical officers who acted under him were delegated the prescribing duties for the sick, but here their responsibility ended. The regimental commanding officer was responsible for the cleanliness and order of the hospital, and every day the subaltern on duty visited it to see that it was "clean and regular" in the same way that he visited each company room in the barracks. The hospital sergeant was a sergeant of the regiment, taken from the regimental ranks by permission of the commanding officer, and he and the nursing orderlies were returnable to duty at any time by the commanding officer's order.

The least irregularity in conduct, or neglect of duty by sergeants, orderlies, or patients, was investigated solely by the commanding officer, the medical officers having no responsibility in the matter beyond reporting it. The commanding officer issued all orders for the interior working of the hospital. The orders for the rising and going to bed of patients, their duties in the wards, and, in fact everything not included in their medical treatment, was arranged for by the commanding officer.

To obtain a new key for the door, a new pane of glass for the window, or a new slate on the roof, he alone was responsible, and he alone could apply to the supply departments. The transport for the hospital and all its supplies save medicines were arranged for by the commanding officer. The medical officer was simply the captain, as it were, of the sick troop or company, and the hospital was worked by the commanding officer as any other company in the regiment.

10. The hospital authority and organization was centralised in the hands of the regimental commanding officer, already supposed to be

very fully employed in other regimental duties, and it depended of course very much on his personal tastes how much or how little he did actively interfere. One commanding officer might be constantly interfering in the hospital and meddling in every petty detail, while another let things slide very much in their own way. Thus no doubt regiments would vary very much from one another in their interior working, depending on how much or how little the commanding officer cared to interfere. To whatever extent they did or did not interfere they were alone responsible, they alone were praised or blamed for its condition, and while such was the case, it was simply right that they should have the fullest authority in its working. Thus only can any system be worked. Whoever is responsible, to him give the power; blame him if he fails, if he succeeds, his be the credit. In this way only can order be preserved. The commanding officer's views were perfectly and strictly correct, and in a regiment there can be but one authority, *viz.* the military officer in command.

11. For their medical treatment of the sick, the medical officers were responsible to the inspecting medical officers, who half-yearly or yearly visited the hospitals, and looked into the records of treatment and dieting.

In those far-off days, from thirty to forty years ago, the medical officers of the army were almost wholly regimental, were commissioned specially in each regiment, and could not be moved for any duty elsewhere save by the sanction of the commanding officer of the regiment. The medical inspectors had no power whatever over them, and they were altogether free from his control, save only in their treatment of the sick. I find that in 1844 there were altogether under sixty assistant surgeons not in regiments in the service, and as these men were scattered over a far wider series of far-detached stations all over the world than exists nowadays, even one staff assistant surgeon in any garrison must have been a curiosity. These staff doctors were under the control of the inspecting doctors, and they were employed in filling up casualties amongst the regimental doctors, and in taking charge of commissariat and other garrison staffs over the empire.

12. Practically the medical department was wholly regimental, and there was not in the empire above three or four general hospitals, if indeed there were so many. A medical *department* properly so called did not exist, and every military hospital was a little one, forming as much an integral part of a corps or battalion as the regimental band or any other regimental institution.

13. When war came and general hospitals were, as in the Peninsula, established, their staff was made up of scratch contributions of individual medical officers and stray orderlies and recovered patients obtained with difficulty from regiments. Any attempt at ambulance assistance, or carriage or removal of sick and wounded, was done regimentally, and in every case general hospitals were, when established, "unsuccessfully administered"—*vide* Sydney Herbert's Introduction to Medical Regulations, 9th July, 1858. This regimental system of working the medical aid for the army was practically in existence until 1873, but since that date it has gradually been supplanted by the unification system.

The regimental system had at any rate one claim on the service, it was of long existence. It had a few advantages, it had many drawbacks, and both of these we will now consider.

SECTION III

SUPPOSED ADVANTAGES OF THE REGIMENTAL SYSTEM

14. The supporters of the regimental system of army medical organization claim for it advantages on three grounds:—

A.—That the regiment, battalion, or battery, had its hospital complete and ready at all times in peace and war, and the regiment was therefore perfectly independent, medically speaking, of the army as a whole in consequence.

B.—That the medical officers being constantly with the same regiment learned to know the men, prevented scheming, and thus benefited the State.

C.—That it formed a pleasant home for the medical officers of the service.

These we will consider in order.

15. **That the regiment, battalion, or battery, had its hospital complete and ready at all times in peace and war, and was therefore perfectly independent of the army as a whole in consequence.**

The supporters of the regimental system sit with eyes blindfolded as to the extraordinary changes made since Lord Cardwell's time in the service.

They seem to think that because the word regiment remains that the army is still regimental in the old sense. This is far from being the case. In the old days a regiment was a definite fixed unit, practically the same in number and organisation in peace or war, and averaging 800 men at all times. It was, in fact, just as strong as the men serving with the colours made it, but no stronger. There was no local tie whatever, no reserve of any kind, nor any means of supporting the regiment in the field by supplies of trained reservists. Under the old system it was known then that 800 men would have an average number of sick, and a definite provision was made for them on this estimate. To-day all this is changed. The regiment is no longer the unit for the army, and the brigade has become the unit.

In peace a regiment will be perhaps 400, perhaps 450, strong, and when the army is mobilized it will be suddenly swelled up by calling in the army reserve, the militia reserve, the drafts from the linked battalion, and the brigade depôt to 1100 or perhaps 1200 men.

Long service with the colours for the private soldier is dead, and small *cadres* and large reserves will be the rule. Where, then, is the regiment in its old sense? Simply it does not exist. For the military

commander it practically matters not at all that his regiment is so suddenly increased. His reserve men will join him clothed, armed, and equipped, and in our service food-supplies and ammunition are not borne regimentally but supplied on an army basis. It matters little then to the military commander how the regiment swells its numbers provided rations are forthcoming.

16. But if the hospitals were to be worked regimentally, on what basis are we to reckon? Shall each regiment have enough medical officers, orderlies, and equipment for the peace establishment and the small skeleton of 500 men, or for the war footing and the full field strength of 1200? What about the orderlies and nursing staff? Are they to be entertained all through peace to await war, or are they to be always on a peace footing? How about the bedding and clothing, medicines, instruments, and such like? Either we would have a crowd of idle unemployed men in peace or a deficient number in war, the first entailing tremendous expense in peace, the second certain disaster in the field. But in addition to this we all know that no trustworthy regimental average of sick or wounded can be formed. Position in attack in battle, exposure to a heavy fire, or unhealthy camp sites, may always cause one regiment so exposed to suffer heavily, while other regiments in the same division probably escape altogether, so that all our regimental calculations are liable to be thrown out, although divisional calculations generally will maintain an average.

17. Of the frightful expense of maintaining a swarm of regimental hospitals and the absurdity of seeing ten or twelve distinct regimental hospitals marching in rear of a single division in the field, we shall treat hereafter.

The outbreak of any epidemic disease or any heavy sickness threw out all regimental hospital arrangements in peace, and in war heavy numbers of wounded likewise disorganized it. Further, the new army organization rendered it obsolete, and it is now supplanted by central garrison hospitals in peace, and large divisional field hospitals in war, to the great advantage of the service in every way.

18. **That the medical officers being constantly with the same regiment learned to know the men, prevented scheming, and thus benefited the State.**

Much baseless sentiment has been expended by officers wedded to the old system of the army on what is called knowing the men. Here again there is a failure to grasp modern changes in army life. All men who know the army life know that in the old days a soldier enlisted in the army for life, and could only get out by purchasing his discharge or by invaliding. In 1835 twenty-one years' service was introduced, and in 1847 the ten years' Limited Enlistment Act came into force, but practically, until 1870, the soldier re-engaged, and the army was until then a thoroughly long service army without any reserves. Since that time all has been changed. Men now enlist for ~~six~~ years with the colours, and ~~six~~ years in the reserve passed in civil life; but many thousands of men have gone to the reserve at three years' service, and owing to the linking of battalions and the interchange of men between them and other causes, a regiment now is continually changing its component parts. Men pass through the army

in a way never dreamt of ten years ago. The army has become like Niagara. The cataract goes on, it is true, but each individual drop of water is ever changing. Soldiers now will not spend their whole lives, or indeed any long portion of them, with the colours as they did in the so-called good old days before 1871, and the old long service regimental feelings have widened out into an *esprit d'armée* little felt before. The mere regimental tie is quite weakened, and in India men now volunteer from corps to corps without the least hesitation whatever, often as many as 300 going away *en masse* from a single battalion. This shows how the wind is blowing. If the pre-Crimean doctor knew the pre-Crimean soldier, it was because, under long service rules, both served long years, in fact lifetimes, together, but that is now all passed away with the introduction of short service systems. Knowing the men in the old intimate way is quite impossible either for commanding or medical officers, and is indeed not essential.

19. On the subject of the detection of schemers, it may be said that in the old continuous service and long service army, *malingering* or shamming sick by the soldier was most common, and indeed rose to the dignity of a fine art, so carefully and thoroughly did the old soldier study it. Marshall, an army surgeon of the old school, who wrote some forty years ago, considered it one of the most essential duties of an experienced army surgeon to be able to detect schemers. Medical officers became experts in such studies, and could make a name by it. To-day *malingering* simply does not exist. Short service, rational treatment, easier lives, and the facility of going to the reserve, removes from the soldier the necessity of scheming sick as they did in the good old days, and it is never now seen. It was the bugbear of the old army, but the diamond-cut-diamond stories of clever schemers and still sharper doctors are now merely traditions of the mess tables of the army.

20. Again, every individual soldier in the army has now a special medical history sheet. The old army never had this history, as it was not introduced until 1859. A more inquisitorial or a more useful document does not exist in the service. In it is entered the age, weight, lung power, pulse, and indeed every possible medical particular about the man it refers to. Every disease, ailment, vaccination, and in fact every medical item of any kind connected with the man therein is entered with the treatment, cause of disease, &c. This sheet follows a man everywhere he goes to, and finally is forwarded to the Director-General for statistical purposes at the termination of the man's service. No civil doctor has such a record of his patients. It is truer than even a patient's own statement, as it is a record made by a physician, and it avoids the erroneous ideas of their diseases patients often form. With this document a man can be sent to any army hospital or before any army doctor, and at once his medical history is seen.

21. This disposes very much of the "knowing-the-men" question, but we should remember that the soldier is likewise drawn from a class always treated in civil hospitals, rarely having any personal medical attendant, and the medical men who do treat them in civil life are not bound to them by the ties of army comradeship that binds us so intimately to the soldier.

22. Very constantly, too, we may see it advanced that a medical officer will take an interest in the men of his regiment which he would not take in a strange one. If any medical officer makes such a statement he is doing a very wrong act, and one perfectly indefensible. Considering that in all general hospitals in the field, in all convalescent depôts, and indeed in numerous other situations, the men must, under any organization, be treated by strange medical officers, any medical officer who thinks in this way should not remain in the service. It is of course the merest assertion and quite devoid of any foundation. Any man who wears the uniform of England should, if sick and weak, be of equal value in our eyes. This is the true basis to work upon. We see, then, that all knowledge of the men in the old way is impossible under short service rules, that officers and men will be constantly changing in every rank and grade, that scheming and malingering have disappeared, and that the medical history sheet tells us each man's previous history.

23. **That it formed a pleasant home for the medical officers of the service.**

This is another statement which melts away on examination. It cannot be denied that under the regimental system several hundred army medical officers had a definite home in a regiment, but we cannot ignore the fact that in 1873 at least 300 officers of the department never by any possible chance could find any regiment to get into, as of late years the army medical staff not attached to regiments has largely been increased.

This is quite well known to all medical and military officers. I find that in 1844 there were fifty-nine staff assistant surgeons, in 1872 there were 228, besides a very large number of staff surgeons, and this number existed at a time when every regiment had its regular complement. Were these officers never to have any home? Or were they to wander over the world for ever? As I shall show further on, this very homelessness of the staff doctors tended very much to injure their *morale*.

24. It would be absurd to deny that throughout the entire army, in every rank and grade, the regimental tie has of late years become much weaker. Regiments were in the old days so isolated in far-detached colonies that the officers were forced *nolens volens* to live more for one another, and the feeling of regimental brotherhood had not received the shocks it has of late years sustained. In the infantry the double battalion system, the linking of regiments, the selection system, and in the artillery the absorption of the Indian artillery and the system of Indian service, have all tended to weaken the bond that in the old days tied regimental officers together. The withdrawal of regiments from lonely colonial quarters, the abolition of Canada, Australia, New Zealand, the Ionian Islands, the weakening of the West Indian and Cape garrisons, and the concentration of the army at home, have rendered officers very independent of the regimental tie as it was of old. In the old times, without steam, without railways, without overland routes, officers lived in their regiments from year's end to year's end without leaving them. To-day it is quite the reverse. Leave is easily gotten, and steam carries one everywhere.

The concentration of the army at home is most evident: Aldershot, Shorncliffe, the Curragh, the increase of the garrisons at Plymouth, Dover, Portsmouth, and the abolition of petty detachments, have brought regiments together in a way never known even twenty-five years ago. Regiments in the old days seldom met; to-day between big camps and autumn manœuvres they are almost always together. The old detached regimental organization, or attempt at organization, has given way to a real *army system*.

In India the transfer of the Company's troops to the Crown has brought the local artillery and infantry under English rules, and now it is rare to find any garrison consisting of a single regiment. In the old day it was quite the rule everywhere in the empire. All these changes have weakened the regimental bond, but developed an army feeling unknown before the Crimean time. Every military officer knows this, and no one can deny that regimental brotherhood is not what it used to be.

25. For the medical officers the tie that bound them to their regiments was of late years becoming every day less marked, and the average service of each officer with his regiment was, in 1873, not more than three years. The increase in the non-regimental medical staff and the concentration of regiments in large camps in England and Ireland, and the withdrawal of corps from detached positions in the colonies, have all tended to draw both regimental and staff medical officers together, and to weaken the old regimental ties which were for the doctors so essential in the old army days, but are now not only of little necessity but positive drawbacks. The idea of unification and modern medical corps organization for ourselves has been gradually developing itself amongst the officers of the department, and the memory of the disasters in the Crimea, the experience of recent European campaigns, the wakening up of the medical officer to study the question of foreign medical organization and the great organic changes in the English army organization, have all furthered this movement.

26. In addition to this the many drawbacks attendant on the regimental medical system from its social aspects, and the friction it often caused between the medical and military officers, and the marked tendency of the regimental system to depress us as a unit of the army, cannot be ignored. All these things have stimulated the desire so strongly developed amongst very many army doctors of drawing ourselves closer together on a thoroughly efficient working medical basis suitable to peace efficiency and war needs, and these views are now gradually spreading. When fully understood by the military officers, the medical officers, and the medical world in civil life, the aims of the unificationists must certainly find many sympathisers, as it appeals to the *esprit de corps* of the military officer and to the professional spirit of our brother-doctors in civil life, as will be shown further on.

27. Now in every garrison at home and abroad the officers of the Army Medical Department form a separate and distinct corps of themselves, as united and compact as the Royal Artillery, the Engineers, or any branch of the service.

They now serve under their own chiefs, work their own hospitals, wear their own uniform, and are perfectly free from any deadweight.

The regimental and the staff doctors have merged in a department, able, if it wishes, to develop a grand tradition and an unblemished name. One hundred and seventy years of regimental subdivision saw us in 1873 broken up, weak, inefficient, and devoid of unity or of *esprit de corps*. Let us see what a change will be apparent in 1883.

SECTION IV

DRAWBACKS OF THE REGIMENTAL SYSTEM

28. We now turn to consider the other aspect of the question, or the drawbacks and weak points of regimental medical organization. The medical corps of an army exists on two grounds—1*st*, that during war, when the safety of the State depends upon the efficiency of the army, there should be a thoroughly good hospital system, with officers, attendants, and appliances of every kind ready to assist the soldiers in their struggle with wounds and sickness; and 2*ndly*, that during the longer eras of peace the best medical advice and the best medical appliances procurable should be available for the soldier, and that intelligent advisers should exist capable of guiding the military commanders on hygienic and sanitary questions affecting their health and physique. The regimental medical system of the English service abolished in 1873, in my opinion, failed on all these points, and this statement can easily and clearly be proved to all who impartially consider the question.

29. It failed, in the first instance, as a war organization, because it taught us all to trust to a system that could never be worked in the field, and would certainly paralyse all medical efficiency there; and it failed in the second by interfering with the union of the army hospitals at one centre in every station where, with first-class appliances, suitable books and instruments, and, far and away, above all, the advantages of learning our professional work from each other, it kept us divided in petty little hospitals, where it was impossible to learn from one another, where interchange of professional views was impossible, and where the knowledge of the senior officers was lost, or the want of experience in the younger ones uncorrected.

30. Sydney Herbert, Lord Herbert of Lea, was without doubt the man to whom the English soldier owes an immense debt of gratitude. Animated by the truest sympathy with the soldier, Sydney Herbert remodelled the medical service of the army, and remodelled in such a way as to do good to the soldier and also to the surgeon.

The only pity is that his lamented and premature death took place at a time when our army was still running in the old-fashioned groove, and before any of the recent organic changes in organization had been introduced.

Had he survived to see the present day, there is no doubt that his

views would have been thoroughly in accord with the unification ideas. When Sydney Herbert lived the old regimental organization of the army was in full swing. There was as yet no system whatever in our military arrangements. The great awakening in 1866 and the still further rousing of 1870 had not yet occurred. The army still consisted of a series of detached regiments wholly unconnected with each other or with reserves. The militia was undeveloped and the volunteers did not exist, and the only way of making England stronger when war threatened was to rush into the labour market and enlist 10,000 or 20,000 more raw recruits. Those primitive days have all passed away and now seem centuries distant from us. At last we have a military system which we, in truth, never had before, and the question of English army organization is now in everybody's mind. Then the question simply did not exist at all. In his day, too, our army was still, as we have pointed out, detached in far-scattered colonies, where regiments rusted their lives away and learned nothing whatever. Now we have few troops in the colonies, and the regiments are concentrated in England instead.

This, too, has involved a great change, and medical organization must keep pace with it. We shall tabulate in order the drawbacks of the regimental hospital system.

31 (A).—**Change in our Military System Regiments no longer the unit of organization.**—This being the keynote of the whole subject, it is necessary to constantly refer to it.

We pointed out that until 1870 and Lord Cardwell's administration the regiment was the basis of all army organisation. It was in those days a definite unit. There were 800 men in each regiment, and in peace and war it remained much the same, save only by the increased enlistments made when war was declared. To-day this is quite changed. The regiment is now a weak cadre or skeleton of officers and non-commissioned officers engaged in training the private soldier, who, when fully trained, passes into the reserve in civil life as a right after six years' service, but constantly after three years' service with the colours.

These reserve men, when war is imminent, will return to the colours, and with them will come the reservists from the militia battalions forming the militia reserves, and also the volunteers and drafted men from the linked battalions of the line. Let us take the 1st battalion 25th regiment as an example.

Say it is stationed at Aldershot, and war being imminent the order is given to mobilize. On the day the order is issued the regiment at home is 480 strong, consisting of the officers, the non-commissioned officers, and the young soldiers serving with the colours. Its brigade depôt is at York; its linked militia battalions are the 2nd and 5th West York militia; its reservists belong to the same Yorkshire district.

32. At once on the order to mobilize being received the regimental reserve in civil life hasten into York to the depôt, and are armed and clothed to the number of 400 men.

The depôt of the regiment permanently located in York furnishes 100 more men, being the young depôt soldiers of the 2nd battalion then abroad. The two associated battalions of millitia are called out,

and the militia reserve from each 70 strong, or a total of 150, join the reservists and the depôt contingent in York. The whole, to the number of 650 strong, are put into the train, armed, clothed, and equipped, and arrive in Aldershot five days after the order to mobilize issued.

At Aldershot they join the regiment and are told off to the companies. As there is no hutting room, tents are drawn from the army store depôt, and they are sheltered. The commissariat, warned of their arrival, issue 1100 rations instead of 480, and all goes well.

33. But how about the hospital? Let us imagine it under the regimental system. The 480 men who formed the original regimental strength having only an average of about 30 sick, needed only two medical officers at most to look after them, and with them is a hospital sergeant and four or five orderlies—a staff based on 480 strength. The medicines, supplies, the bedding, all the equipment, the very building itself, is based on, say, 500 strength, but the new arrivals have made it 1100 strong. What is to be done? At once confusion would begin. The medical officers would be too few, the sergeant would be overwhelmed, and the orderlies simply overborne by the increased sick, which rose at once from thirty on the day the order was issued to mobilize, to eighty after the 650 men had been under canvas for a week. What is to be done? Apply to the principal medical officer of the camp? But, as we are imagining, the regimental system is at work; he has little, in fact no power. It is true the 36th regiment is close by the 25th, and the 47th is also near, and the 58th is not a quarter of a mile away, and two artillery batteries are within easy distance. Each of these separate regiments has two medical officers, one hospital sergeant, five orderlies, bedding, medicines, and equipment quite idle. They are not mobilized, having just come from foreign service, and their medical staff are really quite idle, with perhaps twenty or thirty sick in each separate little hospital, each hospital having twenty spare beds in it. The principal medical officer is powerless to act; he cannot send one man of the eighty sick of the 25th into any other hospital, nor can he move an orderly, a sergeant, a medical officer, or a splint or mattress, or a pillow, from one of the hospitals to the 25th. The 28th hospital is disorganized, men are neglected, improperly nursed, and all goes wrong.

34. By stress of applying to the general commanding, the principal medical officer gets two medical officers detached to assist the 25th doctors. One comes from the 36th and one from the 47th regiment. But not an orderly, a sergeant, or any supplies can be made available.

The 36th doctor is shortly after recalled to march away with his own corps, and perfect confusion remains.

Men die, the general finds fault, the press take it up, England is excited, and who is blamed? The medical department and the principal medical officer.

It is needless to say that he is wholly blameless. It is the system and not he that was wrong.

35. Thus we see that owing to the changes in our military organization, the abolition of the long service system, and the making the brigade the unit of organization, the system of regimental hospitals became an anomaly and eventually disappeared.

36. **(B).—Indifferent peace hospitals.**—Under the regimental hospital system it was necessary in every garrison to have a separate hospital for every individual regiment, battalion, battery, or detachment, even if the regiments were, as in many existing garrisons, six, eight, or even ten in number. We had then in every garrison a great number of petty, roughly-furnished, poorly-equipped hospitals, devoid of those modern improvements and arrangements found in every good civil hospital, and which in the end mean comfort and efficiency.

Thus special eye wards, infectious disease wards, detached wards for special cases, were rarely, if ever, seen, because it was impossible, in a number of petty little hospitals, to provide such wards for every odd case that would occur in a single battalion or battery. No nation could afford to build six or eight perfect little hospitals in each garrison. To do so would be quite ruinous. How often have we not seen within a few hundred yards of one another two military hospitals, each with its separate dispensary and store of drugs, instruments, and its petty wards, where it was impossible to isolate cases requiring special treatment.

37. Doubtless what we want, and what unification claims, is to build in each garrison one central hospital complete in every way, —with eye wards, detached wards, lunatic wards, prisoners' wards, lying-in wards, children's wards; in fact, everything needed in a really good hospital.

There let the sick soldier be treated with every aid art can give him. In the field things must be rough; they need not be so in garrison; there the sick soldier should have every comfort. Such hospitals could not be regimental, as one would have each regimental commanding officer interfering in various ways. They must be garrison hospitals under the officer commanding the garrison and the principal medical officer of the station. They two can arrange for the location of the sick and the uniform working of the hospital—a thing quite impossible if six or eight regimental commanding officers, all of equal authority, were struggling for supremacy there.

38. We have now as a department the charge of the army hospitals, they are altogether in our hands, and we can make them the most perfect in the world. Heretofore with a series of petty hospitals—mere cottage hospital adjuncts to every petty regiment or battalion—we never had in a garrison an institution fit to point to as a model English military garrison hospital, or fit to train a medical officer to the large requirements of an army in the field, or even of a large city civil hospital.

39. **(C).—Absence of libraries, chemical laboratories, and expensive instruments.**—To-day to carry out one's professional work thoroughly books are necessary; scientific magazines and professional journals are necessary; chemical laboratories are necessary; microscopes, laryngoscopes, aspirators, galvanic batteries, and a quantity of expensive instruments, are necessary. While divided into petty regimental groups of medical officers serving by twos or threes in wholly distinct little hospitals in the same garrison, it was impossible for these essentials to be collected, or if collected, they would be a great cost to the State, and by dragging them about from place to place with a

marching battalion they got smashed and injured. Consequently in very many cases the instruments did not exist, no microscopes were to be found in a whole garrison, no libraries or books of reference, and, as a consequence we lost the benefit such books could give us. Civil doctors have all these aids. They do not knock about the world as we do, and we cannot carry these things with us. What we need are gradually-formed libraries of reference, book clubs, and good instruments collected in the central garrison hospitals all over the world, and available for the use of all. In Peshawar or Halifax we would there find the instruments or the books we wanted, and not be, as we now are, destitute of these aids to professional efficiency.

40. The absence of books has been of great injury to us as a professional body. Heretofore there was no centre in a garrison, where all medical officers could collect any, and they did not in consequence exist. A regimental hospital used to drag all its equipment, instruments, and records with it from garrison to garrison. Now these instruments and the equipment will remain permanently in each central garrison hospital, and books and such like aids and good instruments will be collected there to our certain advantage.

41. **(D).—Impossibility of obtaining skilled nurses and attendants.**—Under the regimental system it was impossible to obtain skilled nurses and attendants. The only post for a non-commissioned officer in a regimental hospital was that of hospital sergeant, of which there was but one in every corps. If he became smart and intelligent, he might any day be transferred to company duty because in the hospital he had no prospect of reaching the higher post of sergeant-major, or quartermaster-sergeant, or of getting a commission as quartermaster or as ensign. The orderlies in a regiment were constantly unpresentable men, who spoiled the appearance of the ranks and were hidden away as hospital nurses. If an orderly turned out intelligent and trustworthy, there was no possible way of getting him made even a corporal, so that any smart young man soon saw that to remain a hospital orderly was to sacrifice every prospect of regimental advancement. As a rule, they were ignorant, untrained men taken haphazard from the ranks. Nursing needs training nowadays. A private soldier taken from the ranks at random is about as useful in a hospital as a raw recruit is on a barrack square, but training and teaching can do wonders with men. Under the regimental system, if a regiment became sickly, or attacked with any epidemic disease, there were no orderlies available, and none could be applied for from other corps, as each regiment kept a definite number always by it. If there were few sick they were quite idle; if there was a high sick-rate they were worn out with fatigue. The true system is, in no doubt, the present army hospital corps one. We have a specially trained corps, specially employed in the hospitals, and specially promoted to corporal, sergeant, or commissioned ranks in the hospital corps if really efficient. If one garrison is perfectly healthy and another is sickly they can be moved at once to the sick station. There will not be in any garrison whole groups of orderlies lying idle, while a few hundred yards away other hospital staffs are burdened with work. However sick the 25th were in the old days, the 26th,

27th, 28th, all close by, gave no help, nor could these hospital orderlies be transferred for duty in the sickly corps.

By the old arrangement the State lost in every way. To-day every man in the hospital corps can be utilised wherever he is wanted.

42. **(E).—Expense of the regimental system.**—If the old system was inefficient it might perhaps have been thought to have been cheap. It was quite the reverse; whether as regards medical officers, orderlies, and medicines, or equipments, it was very expensive indeed. It was necessary to keep with each corps at all times a staff of officials sufficiently numerous to meet any ordinary extra demand, and these officials went with the corps everywhere. It constantly happened that in the same garrison regiments varied in sick-rate very much. Take Portsmouth: say one corps has just arrived from India and was full of sickly soldiers, the other six battalions were very healthy indeed, yet all of them had the same detail of two medical officers. Thus five hospital staffs were perhaps quite unemployed, the sixth was never at leisure. England kept paying for some medical men who perhaps had very little to do, and however anxious the medical officers were for work, each officer was compelled to limit his duty to his own little regimental hospital.

43. In India the same system went on. Peshawar is an unhealthy station. Bareilly is very healthy. In the former the sick have been 250 in a single regiment; in Bareilly 50 is a full number, yet in both stations the regimental staff for work was the same, because the rule must be followed. Compare Mecan Meer and Rawal Pindi, Chukrata and Morar, Secunderabad and Bangalore, Poonah and Nusseerabad; in each of these cases there was a marked dissimilarity in the sick-rates, yet the same strength of staff was detailed to treat them. Under the new system this cannot occur. If Mecan Meer is unhealthy, let the medical staff be numerous and concentrated there. If Chukrata is healthy, reduce the staff to suit the place. In this way all goes well, economy is promoted, efficiency is developed, and every official is happier. As regards drugs, instruments, equipment, in all these needs the old system was expensive and injurious, the new economical and efficient.

44. **(F).—Utter failure in war time.**—If the regimental system was expensive in peace and injurious to professional efficiency, in war time it was simply unworkable.

The medical department under such a system was perfectly paralysed. It tied the hands and feet of the directing medical officers of the army, and then blamed them for not walking and working. Every regiment that embarked for the Crimea, or that in 1871 would have embarked for any continental war, would have had its medical staff of three doctors, a sergeant and some orderlies, and its little regimental hospital with its little share of transport and equipment, all marching with the regiment. Fancy an army corps so organised with perhaps 30 battalions of infantry, 6 regiments of cavalry, and 10 batteries of artillery, each of them with its little hospital. In all 46 separate hospitals, each, say, with even two medical officers, or, say, 100 surgeons, 46 hospital sergeants, and some few hundred of regimental orderlies. Let us imagine all these separate hospitals marching in the

rear of the columns, each perfectly independent of every one save the regimental commanding officer, each hospital staff in separate regimental uniform, whether infantry, hussar, highlander, gunner, or sapper, &c. Imagine then the army corps forming into order of battle and attacking such a position as the Alma Hills. Ten battalions, two cavalry corps, and four batteries, alone come under fire, and they alone are full of wounded. The medical staff of the regiments under fire are at work night and day, and still men die unattended. In the meantime three fourths of the doctors are quite idle because their regiments have not been under fire, yet no one can move them to the assistance of the worn-out doctors of the wounded corps. The principal medical officers are in despair: but what can be done? Yet this was the system at the Alma, and it might have been the system still were unification not introduced.

45. It left the medical department a sham, and paralysed all efficiency. It seems impossible to believe such a system can find supporters. Not a single military writer of any character whatever supports such a system. It was simply courting ruin to carry it out. The lesson of the Crimea we have never forgotten. It was there in the tents of that devoted army that the thinking medical officers of the service first raised the question of unification; and to-day, after twenty years of patient waiting, it is an accomplished fact.

46. Wolseley, in his 'Soldiers' Hand-book,' says, at page 55: "Our present system of regimental hospitals is unsuited for a large army, it is very expensive and too cumbrous for rapid and constant moving." Again, at page 59: "It would be absurd to attempt such a system (regimental conveyance of sick) with a large army in the field."

47. Sidney Herbert's Commission considered that regimental hospitals are unsuited for field service, as they are "unable to adapt themselves to the requirements of an army in the field."

48. Sir Henry Storks, speaking before the short service system, considered the regimental hospital system "essentially a peace organisation."

49. Surgeon-General Mouat, writing of the New Zealand campaign, considered it a wholly inapplicable system in the field.

50. During the American campaign of the rebellion the hospitals were all worked as an army department.

In Germany, where the medical service is thoroughly efficient and in many ways to be copied, they long ago abandoned the system of regimental hospitals and now have the most perfect departmental system in Europe, wholly apart from any regimental organisation. Italy has made the same change.

51. Russia, which has made great strides in organisation, has done the same thing and made her service wholly departmental; and France is doing the same.

52. The truth is, regimental hospitals have nowadays not one single argument in their favour, and the moment the subject is inquired into, the fact becomes quite evident.

By having a separate medical corps organisation wholly under the principal medical officer and the general officers commanding, a system of war hospital can be devised, perfect in every way, complete

in every want, and as easily movable and detachable as a battery of artillery.

The garrison hospital in peace and the divisional hospitals in war worked by the army medical corps quite as an army organisation is the true principle for us to carry out, and this will be further treated of under the unification section.

Any other system was frightfully expensive, injurious to professional efficiency, hopelessly unfitted for war service, depressing to the medical officers socially, and quite at variance with the organisation of a short service and territorially organised army such as ours now is.

53. **(G).—Prevented all training in administration of hospitals.**—Under the regimental system the medical department was quite untrained in administration. While in a petty regimental hospital the medical officer was not required to deal with any large medical question, of sanitation or administration, nor to have any responsibility outside the walls of his little hospital. The commanding officer, the adjutant, and the quartermaster of the regiment did all the transport, discipline, and all other non-prescribing duties. The principal medical officers of divisions and districts at home and abroad had no control whatever over the hospitals or the medical officers of regiments. If a principal medical officer got ill, or went on leave, or retired, he was always succeeded by some surgeon-major of a regiment, who up to that day had never dealt with any larger question than those arising in his own little regimental hospital. There was no training such as a good central garrison hospital can give us all, and a man stepped at once from the charge of 30 or 40 sick to the direction of a division of the army, say 10,000 strong.

54. No wonder that such men so trained in the enervating regimental hospital system were at first, and for years, poor administrators, and that the department has always been weak in such points.

To-day this is all passing away. We have now in most garrisons central hospitals taking in all the garrison sick and giving them all good nursing and attention.

Besides the principal medical officers of divisions and districts we have "senior medical officers" in every garrison who are daily learning to deal with large questions affecting the several corps in garrison, and who are daily controlling numbers of medical officers, arranging for their duties, distributing the hospital corps, and gaining practice in administration, such as never would be gained before in petty regimental hospitals.

The power of individual commanding officers of regiments is relegated to its true province of dealing with the discipline and training of the private in the ranks, the medical department taking sole charge of the same man when ill without any regimental interference. In this way we are becoming efficient, and such we never could become in the old days of regimental subdivision.

The department is at last beginning to exist as a department of the army, and not as a mere petty adjunct to every battalion or battery.

Our feeble administration and organisation in the Crimean campaign, when the regimental system was supposed to be in working order, are

well-known facts, yet the Crimean campaign should have been a singularly easy one as far as administration is concerned, as we never marched 100 miles the whole time, and we really were enclosed in a small tract of land bounded on one side by Sebastopol, and on the other by the Russian field army and the sea.

55. **(H).—Prevented all development of professional knowledge amongst the army medical officers.**—Unless professional men, whether lawyers, doctors, soldiers, sailors, or what profession you choose, meet and discuss questions connected with their work, progress will never occur. Observe how in civil life the medical profession have their meetings to read papers on various questions and to have discussions and arguments. Consider what advantages arise from medical men meeting in their hospitals and learning from one and another. With us in the army under regimental system this invaluable meeting together was quite impossible. Each little hospital, however close by the other, was wholly independent, and a medical officer dare not enter another hospital unless at the request of the medical officer in charge. How often have we seen an artillery hospital not 100 yards away from the infantry hospital—the former perhaps in charge of a young officer just out from Netley, very ignorant perhaps of tropical disease and Indian routine, the other directed by an officer of long service and knowledge, yet powerless to interfere.

56. How often, too, have we seen a well-experienced officer in charge of a small battery hospital and close by a regimental hospital in charge of a junior, yet each wholly independent in every way of each other.

We can never be efficient and thoroughly professional unless we meet together, unless we can consult and advise with one another. We can never promote true professional *esprit de corps* unless we are drawn together in our hospitals, and that the young officers meet the older officers and learn of them, and the older ones meet the young and advise with them, and indeed perhaps learn from them too. We want to improve; we aim at efficiency; by concentration alone can it be achieved, and by such assistance we can develop ourselves far more than we could when scattered over a garrison isolated from one another, with little opportunity for professional discussion or consultation. Unification aims at this. Professional efficiency in peace, war efficiency in the field, and on no other basis can these aims be secured. Regimentalism means letting professional knowledge go to a low ebb in peace, and in war it means disaster in the field. Choose then between the two, for the choice must be made. There can be no compromise, nor any medium course.

57. **(I).—The question of compromise.**—It has been proposed that a compromise system should be introduced for working in the medical service of the army. It advocates in peace petty regimental hospitals worked on a regimental basis by regimental officers to be the rule, but when war is declared, at once, general hospitals to be organised and worked by the regimental officers concentrated together. It is needless to say such a system is quite out of the question. If an army had one system for peace and another wholly different for war, disaster is as certain as anything can be. Men must be trained in peace for war. That is the basis of war efficiency, and neglect of the rule was the

cause of our Crimean failures. To advance such a theory to-day is to organise disaster and to make ruin certain. Imagine the English army, with its medical system worked regimentally, suddenly embarking for Antwerp. It left England with a regimental system, it disembarks with a sham departmental system.

58. That is to say, a crowd of regimental officers never trained in large hospitals, but taken from petty battery and regimental hospitals, are suddenly massed in large general hospitals, or put to work divisional field hospitals in a campaign. As in peace the regimental commanding officer and the regimental quartermaster did all the discipline and transport work; the regimental doctors know nothing of it; not one of them even saw a large army hospital worked. The senior medical officer perhaps comes from a battery of artillery and now takes charge of a division of an army and a set of army hospitals for 800 sick.

A crowd of medical officers each differently dressed, a crowd of hospital sergeants drawn from every corps, and a mass of orderlies without cohesion, without *esprit de corps*, grumbling to get back to their regiments, impatient of all discipline and control by officers and sergeants they never heard of or saw before. Transport brought from various quarters. A field hospital mobilised at a week's notice. No hospital corps. No fixed routine of work. Regimental commanding officers clamouring for their doctors and withdrawing them when most wanted! Doctors struggling to get away to their regiments, no co-ordination nor departmental *esprit de corps*, and directing all a principal medical officer whose duty in peace time is to inspect diet rolls and prescription books, and we have all the elements of disaster ready at hand.

Such a system of compromise is impossible.

59. In the army we know of no compromise. Everything is laid down by rule. A system exists, or it does not exist, and it can never be taught by any soldier or any army doctor that it is possible on the eve of a campaign to change an existing army system.

60. Try it in a battalion; try it in a battery of artillery. Subdivide a battery of artillery in peace into single guns and attach them for discipline and order to each regiment or battalion.

Let the regimental commanding officer arrange all questions of discipline administration and transport, and let the artillery wear the uniform of the regiments to which they are attached. Then, when war comes, draw them together, group them in batteries, and what will be the result? Certain disaster from want of cohesion and *esprit de corps* and practice together in peace. These results are certain, and no one can deny them. It cannot be too often repeated that in any army the only real basis of efficient working is to make the peace routine so like the war routine that a soldier cannot distinguish one from another. The more this is aimed at and carried out, as it has been done in Germany, the nearer is efficiency, and the more variation that is allowed to be developed between peace customs and war requirements in any army, by so much the more is disaster organised and ruin made certain.

61. Sooner than have any compromise system it would be better to stand by the old regimental system than on the eve of a campaign to change every arrangement. The old proverb about the danger of swapping horses in a ford holds good here.

62. (J).—**Prevented all station tradition of disease.**—Under the regimental system if a regiment marched into a foreign station it brought with it its own three doctors.

They might have experience of the new place; very often they had not. Numerous mistakes have taken place in this way from ignorance of local diseases and absence of local knowledge in sanitation and hygienic precautions.

Now under the new system, the garrison medical staff being permanent, regiments will come and go, and the army medical officers will remain and carry on the knowledge gained locally from one medical officer to another. In this way many mistakes will be avoided.

63. (K).—**The regimental system ruined true "esprit de corps" amongst the medical officers.**—In the old army days before the Crimean war the regimental system was excellent for medical officers. Regiments were hidden away by themselves for years in outlandish colonial stations where no two regiments ever met. In such days all the army medical officers were regimental officers, and practically no medical staff existed.

Now, under the altered conditions of army life, the concentration at home, the abolition of colonial garrisons, and the great increase of staff doctors who never could find any regiment to get into, it is quite out of date.

Instead of the Army Medical Department being, as it ought to have been, an army corps thoroughly imbued with *esprit de corps*, high professional and army feelings, and full of its glorious traditions, it was divided and split up into two main sections. On the one side were the regimental doctors, the lucky men who got into regiments, escaped all the drudgery of the army life, had comfortable messes, and were never moved about the country. On the other side were the staff doctors, 300 strong, a body of officers whose unhappy position it was impossible to describe in terms too strong. If the regimental system gave a home to half the army doctors, it threw the other half hopelessly on the world.

64. The condition of the medical staff officers, 300 of whom, through no fault of their own, could never get into regiments of late years, was most painful and objectionable under that system. I do not know any body of officers in Her Majesty's Army who suffered as they did. They were perfectly friendless and homeless; they were the drudges of the department; they were literally never at rest. Every move of troops, every outbreak of disease, every possible unpleasantness in army life weighed down the old staff assistant surgeon.

His life in India was the joke of the service in every mess. Literally no man cared for them. They flitted from station to station, and from cholera camp to cholera camp in a surprising way.

They had no homes, no messes, no circle of friends. Their nameless graves are scattered over the land in no small number. That they were deficient in discipline and often injured in their *morale* was no fault of theirs it is easily explained.

65. It rose from the division of the department into two sections of

regimental and staff officers. The former once gazetted to a corps could not be moved from their corps for any detached duty, or if they were their colonels immediately worked on the military authorities to get them back.

The principal medical officers had no authority over them, and, as a consequence, the staff doctors whom they could move came in for a continual round of moves and unpleasant duties. When a staff doctor was attached to a corps he was often given the least inviting duties to do, and this itself drew down official rebuke from the higher medical authorities.

66. However senior a staff doctor was in the army, in any regiment he was attached to he was junior to the young boy fresh from Netley, if that boy had a regimental commission. This alone was a most depressing rule. The staff doctors themselves were the doctors left after every regimental commanding officer had picked out from the medical staff the doctors he liked and got commissioned in his regiment, and a further sorting was made by many of them themselves getting into the regiments they liked. In this way the army medical staff contained some men who needed very much the guidance and companionship of their brother-officers to teach them the army customs and traditions, and that companionship they never had. Their lives were spent on the march, on boardship, in epidemics, in every place but in a comfortable home. With the regimental people it is quite the reverse. Often by no special good quality a man got a regiment and was at once removed from the drudgery of the staff. This system ruined the prestige of the army medical staff. Every young medical officer tried to get out of it, struggled to get into a regiment, and, wearing its uniform and safe under its protection, cared little for principal medical officers for ever afterwards.

It was this hard life of the staff doctor that ruined the prestige of the Army Medical Department. Every one thought that when unification was brought in it would bring us all to the same level as the old staff doctor. This is far from being the case. Now the garrison staff of doctors are a permanent body rarely moved. If one regiment is sickly in a garrison, and another healthy, a staff doctor is not wanting to be sent to the place, because the doctors have all equal work and share alike.

In former times the doctors of the healthy corps in the same garrison remained idle, and a staff doctor came from afar to assist the sickly regiment.

For movements of corps and such like, the moves are now spread over the whole staff, and as each man takes a share and returns to his station when it is over, a trip in a year is about the number a man has to make. There is now no class in the Army Medical Department specially told off for unpleasant duties.

The unpleasant duties have almost disappeared. We are now freed from mess and band subscriptions to regiments, and in the large garrisons messes of the army medical staff can soon be established. We are rapidly gaining a position we never had before, and as each man remains for a long time in each garrison and makes friends, he is no longer the wanderer as the old staff doctor often was. The depart-

ment is developing the grand tradition of duty done in the old day, and we are existing as an army department that will soon stand high in the service, and daily increase in influence, professional knowledge, and efficiency in the field. Divided in regiments, we gave to them our *esprit de corps* and our strong attachments, forgetting that our department should be dearer than all in our eyes, and that its tradition is our best boast and truest standpoint to work from. Working from that basis we can devote our energy to the comfort and happiness of the sick soldier, and can give to the department the devotion and attachment so often given to our old regiments. We have a department to live for, and that we never had before.

We too often forgot in the old days that a department did exist, and divided by two and three amongst different regiments all departmental *esprit de corps* was at a low ebb. To-day it is different. We are drawn close together, and a feeling of comradeship and brotherhood is developing little felt before. Under the unification system we can be more useful to the soldier, be more perfect doctors, carry on field duties more completely, and be in every way more efficient than under the old system now disappeared. An organisation such as we now have gives us a fair field to work in, and unties our hand to do this work.

67. Again, regimental sympathisers seem to forget that by the old system the staff doctors of the army often would have been the responsible officers for working the base general hospitals in the field.

That is to say, after every officer of any smartness was safely billeted in a regiment and free from his medical director's interference, the remainder left would do to work the great hospitals at the base of operations.

What order and what efficiency could have been effected under such a system? The officer who all through his service had never been disciplined, and had done little save the drudgery of the department, and who had always been junior of his rank in a regimental hospital, suddenly appeared as a director of a general hospital!!

68. **(L).—Minor drawbacks of the regimental system.**—No one with any idea of organisation in an army but must agree that it is essential to efficiency and order that in the field or in quarters an officer or soldier should be recognised at once by his uniform. Let us imagine artillery men or engineers all wearing the uniform of the various infantry battalions in any army, and then ask a private soldier to identify the gunner or the sapper. Such was the rule with us under regimental organisation. We had a crowd of varying uniforms in the department. Few officers could identify the medical officers from the others in full dress; and in undress it was wholly impossible. Some proofs may be useful. We begin with the cavalry. In full dress uniform the cocked hat distinguished the surgeons, and many corps ignored the ugly black cross belt and permitted the doctors to wear the regiment gold belts. But in undress it was perfectly impossible to distinguish any medical officer from any other officer. They wore the same dress in every particular. In the old times in the hussar corps the only distinction was the black cap lines of the busbies, and few people in the army even noticed this distinction. In the

horse artillery the dress was quite the same in full dress, except that the busby plume was black and the cross belt was departmental. In undress uniform the artillery doctors were in no possible way distinguishable from the other regimental officers, as they all wore the same sword belts.

I have myself seen the royal engineer doctors in former years wear the embroidered engineer cross belt, and it was quite impossible to tell them from the other officers. In highland regiments it was also quite impossible, as all alike wore the feather bonnet, and the plaid hid any departmental belt worn. In the rifle battalions the only distinction was the absence of a pom-pom in the shako.

In undress uniform throughout the service a medical officer was undistinguishable. This may seem a small thing. It is quite the reverse. Try and consolidate a war hospital, with officers, sergeants, and orderlies, all differently dressed in a dozen varying uniforms, place them in the field for assistance to the wounded, and who can recognise them? Few soldiers could distinguish them, and few officers either. The true principle is to have one definite uniform for the medical corps of an army, whether officers, sergeants, or orderlies, and let it be easily distinguishable, and never varying. In this way all the army know it and no errors arise. Such a uniform may be perfectly distinctive, at the same time it need not be ugly.

Esprit de corps is sustained and developed even by such petty things as the pattern of a man's uniform, and we want perfect distinctiveness without ugliness—a result not difficult of attainment.

69. (M).—**Unequal foreign service and irregular tours of duty.**—The medical department under the old regimental system was in a state of extraordinary chaos as regards the roster for foreign and home service.

Owing to one half of the doctors being commissioned in corps and battalions, and the other being staff doctors, no uniformity existed. Some regiments never go abroad. Their medical officers were always in England. Some corps, such as the engineers and army service corps, never serve in India, hence their doctors escaped India. In India battalions of infantry remained twelve years, and the doctors had to remain out all that time without a chance of a change, while the staff doctors went home every five years. I have seen medical officers often out for ten and twelve years without a chance of getting home. In Ceylon the staff doctors serve three years and then go home. Regiments serve ten and twelve years. At home some staff doctors might remain two years; others who knew how to exchange and arrange matters were left in England. Unless an officer in the English army serves abroad in his earlier years he is quite unqualified for promotion.

He can never grasp the varying questions of hygiene and sanitation or disease that daily arises in a wide-scattered army like ours, unless he has such experience.

Yet in a seniority corps such men, ignorant of foreign routine, eventually became senior in the department, and perhaps claimed promotion.

To such promotion they had but faint claims, and even if promoted

could be rarely efficient. Now we have a fair and uniform roster and a uniform tour of service for all. We are all benefited by it in a great degree.

70. Nothing need be said here of the friction that was often developed between the medical and other officers of regiments under the old system. That such friction did exist is undeniable, and the military and medical press teems with complaints on this head. By the new system these causes of complaints are reduced to a minimum, and a happier era is dawning for all of us.

In losing our regimental ties we gain an *esprit d'armée* never felt before, and our department for the first time stands forward on its own proper basis, not as in the past trusting to regimental support for existence.

Such a system ruined our professional feeling, and developed a false spirit of regimental *esprit de corps* that tended nothing to our improvement as doctors in any way, and however we may have gained *personal* esteem or regard for our services, no credit was ever given to the department.

This was the drawback of the old system. Every good service done by us was credited to the regiment we served with; every *faux pas* was set down to the fault of the long-suffering department.

But such a state of things cannot recur again. Now if we fail, we fail as a department; if we do good work, credit goes to our department.

SECTION V

THE UNIFICATION SYSTEM

71. We now turn to discuss the unification or departmental or non-regimental system of army medical organization.

Under this system the custom of having the hospitals of the army permanently divided into a crowd of petty regimental ones, mere adjuncts to regiments and battalions, will cease. The commissioning of the medical officers specially in separate regiments will be changed to commissioning of them in the Army Medical Department. The sick in peace will be treated in central garrison hospitals wholly under medical administration, where a definite garrison staff of medical officers will take charge of them. In war time field and general hospitals, each perfectly complete, self-contained, as definite as a battery of artillery, independent of regiments in every way, and directed in their movements by the principal medical officers under the authority of the general commanding the army, will supplant the regimental system.

This plan of organisation which is now the rule in every army worth copying, and which contains efficiency and economy in peace with

thorough fitness for army service in war, is now being developed in our army, and its advantages may be tabulated in order.

72. (A).—**Localised responsibility in the medical department.**—We have pointed out the waste of medical aid and equipment that constantly existed under the regimental hospital system of administration by the medical officers and the hospitals themselves being divided into petty regimental subdivisions, each immovably attached to single battalions and regiments, and perfectly unavailable either in peace or in the field for any army duty outside their own petty regimental limits.

All this waste of men and material will now cease.

Under the commanding general the principal medical officer of each district in peace, and of each division or army corps in war, will now have entire power of disposition over every medical officer, orderly, and every hospital in that district, division, or army corps. In garrisons at home and abroad a fixed garrison staff of medical officers, forming a definite body of officers organised in every way, will carry on all medical duties there under the immediate direction of their own senior officer, presided over by the district principal medical officer and the general in command.

73. The senior medical officer in each garrison will be responsible in every way for the entire medical duties of that garrison. Under him the medical staff will treat the garrison sick in central army hospitals, over which he will have complete power of adjusting work, arranging orderly duty, and in fact directing every detail.

A medical officer will be detailed to each battalion or section of a camp in peace, and in war to each battalion or regiment, to send the sick of his battalion or camp to the central garrison hospital in peace, or the divisional field hospital in war. Once admitted there, the medical service will be responsible for the patient.

The medical officer will likewise treat such sick officers as may need his services under the instructions of the senior medical officer, but in the field such cases would likewise be treated in the divisional field or the stationary army hospitals.

A staff of medical officers will be detailed for the garrison female hospital, likewise a completely organised central institution, and thither all sick women and children of the garrison will be sent for treatment.

An officer of the medical staff of each garrison will be detailed by the senior medical officer to supervise the sanitary condition of the entire garrison, and in the field of the brigade or division as a whole. By due division of labour all the medical staff of any garrison will be equalised in their duties, the services of every officer and man will be made use of in a way impossible under the old system. If a garrison is healthy, the staff can be small; if it is sickly, the staff can be large in proportion.

74. The senior medical officer being responsible for all the corps in garrison, will be taught to deal with army medical questions and administration as a whole, and not as formerly as concerning his own little battery or battalion merely. The service will gain by having an officer of experience guiding everything.

A hospital corps of orderlies, sergeants, and officers, specially detailed for hospital service and it alone, will conduct all nursing and routine hospital duties in camp or garrison under the orders of the principal medical officer.

The instruments, drugs, and equipments, will be under the control of the same officer, who can dispose of them as most convenient for the good of the service.

The garrison sick will be all treated in one central place, and our opportunities of learning our profession and of developing our professional efficiency will be greatly increased in consequence.

75. In war time perfectly movable field hospitals, as completely and independently organized as a battery of artillery, with a fixed definite staff, and copies in every way of garrison hospitals in peace, will be attached in certain proportion to each division or army corps. Their medical and nursing staff will be especially trained, be wholly under the principal medical officer of the force, and the hospitals and the staff can be concentrated with a sickly division, or at the point of attack in battle, as easily as so many batteries of artillery can be concentrated. If one division be full of wounded and other divisions have none, the field hospitals, with staff of doctors and nurses complete, can be marched to the sickly or wounded division as easily as any battery of artillery is now transferred. If a part of a division halts, one of the field hospitals may halt with it. If a field hospital be full and cannot be evacuated it can halt by itself. If a division subdivides for any special service, one of the three field hospitals, or two or all three, if necessary, can move with it. If even a single detachment move away the field hospital can subdivide and again subdivide without any single part losing its mobility and efficiency, and on again joining the head-quarters of its division or army corps it resumes its place with the field hospital, as in a regiment any company resumes its place in its battalion.

76. By this facility of ready subdivision and perfect mobility every varying strength of the force detached from the army can be supplied with a proportionate hospital complete in every detail, and the medical service secures an efficient and independent organization, enabling it to concentrate or to divide its services to the wounded or the sick of the army in a way impossible under the old system.

It can combine into a divisional hospital, or separate into a regimental section with equal ease.

We cannot again see the absurd sight of a crowd of regimental hospitals with their doctors, orderlies, and equipment lying unemployed and unavailable, while a few hundred yards away other regimental hospitals were crowded with sick and the staff overpowered with work. Perfectly organised hospitals, complete patterns of medical efficiency with definite staff and equipment, can now be easily concentrated at any place or in any position.

77. A hospital corps exists, trained under medical direction to remove the wounded from the field, to organize dressing places for them, and afterwards to hand them over to the field hospitals.

The field hospitals moving with the army, or, if necessary, able on special occasions to halt independently of it, eventually transmit all

suitable cases to the more stationary hospitals in the rear; but whatever is done, is done by the medical service as a department. We know who is responsible, and what our wants will probably be.

78. Think what a comfort it would have been to all, and what a different aspect the Crimean campaign might have assumed, if, after the Alma, the army, freed from all responsibility about its wounded by being able to halt four or six field hospitals for even a few days at the riverside, could have hastened on in pursuit of the disorganised foe.

But it was impossible. Trusting to regimental organization and imagining that the regimental system, of an army in every department was sufficient in every way for field service, there was no organization able to detain a suitable medical staff to carry on the work; and as all the regimental hospitals, the majority of them quite empty, had to march away with their corps, we saw in consequence two extraordinary sights, one of a whole army detained by a really paltry number of wounded men, the other that of a single medical officer (Thomson, 44th Foot) with his soldier servant left as a sufficient medical aid for 400 Russian wounded. Think what a comfort it would have been if we had had a medical department organization, or any attempt at an organized medical corps, to carry out the dressing and the embarkation of the wounded there.

79. To-day all this is changed. Now the Army Medical Department has a system. It has now become a corps of the army in the same way that the engineers gradually became a corps, and the artillery developed into a distinct branch of the army.

In old times last century the artillery of the army was kept divided into groups of two guns attached to each single battalion or regiment. That system fatal to all artillery improvement terminated long years ago in the battery system by which the guns and the gunners were no longer scattered by couples through a crowd of regiments, but were concentrated under their own officers in batteries and divisions. Efficiency as gunners and *esprit de corps* and pride in their service as artillerymen have been developed by such a system, and unification will do the same for the medical service. It means withdrawing each petty hospital from each battalion and concentrating them under their own officers in army hospitals completely and independently organised.

It means a professional efficiency being developed impossible before, and this is a great point gained.

80. (B).—**Efficiency in peace** is also secured by organising first-class central garrison hospitals under medical direction in each station. In these hospitals ample arrangements can be made for all wants. Special wards, ophthalmic wards, infectious diseases and lunatic wards, with operating theatres, and special arrangements of every kind can be prepared. Say that in the old days scarlet fever broke out in a garrison and cases occurred in each battalion. Every regimental hospital became tainted. To-day we can have special infectious wards for a garrison. In like manner special eye wards can be arranged. Similarly female hospitals with lying-in wards and children's wards can be organised, and much comfort given to every one in consequence.

81. (C).—**Mobility and readiness in war.**—By freeing the hospitals from their paralysing regimental attachments, and arranging them on a divisional or army corps basis, each hospital being free, mobile, perfectly self-contained, having all its wants provided for inside itself, and as readily movable as a field battery, the hospitals on receiving an order can concentrate at any particular place; whether it be an unhealthy part of the country, the probable place of attack, or anywhere that special medical aid is needed. The general in command informs the principal medical officer—"The enemy are in great force on the banks of the Alma. The field hospitals should concentrate near the village of Bourliouk." At once all the hospitals from the army corps can, if necessary, be moved there. Under regimental organisation this was impossible. Unless the regiment was specially moved no hospital could be moved, so that three fourths of the doctors, orderlies, and *matériel* were wasted, while others were overborne with work. Again—"The 11th hussars will make a reconnoissance towards Eupatoria." Order for hospital—"The 2nd field hospital cavalry division will detach its No. 1 subdivision for service with the 11th hussars during the approaching reconnaissance." Again—"The army will advance to-morrow by way of Mackenzie's farm towards Sebastopol." Medical order—"The reserve field hospitals' 2nd army corps will halt on the Alma until all the wounded are embarked. The Russian wounded will likewise be attended to. On the termination of these duties the field hospitals will join their original divisions." Nothing is simpler and easier than this, provided we are trained to it, but fancy it under the old system. The regiments marched away, with them all the hospitals moved off.

82.—(D).—**It establishes a uniform system for the medical service in peace and in war.**—No change will now occur when war is imminent. The army hospitals will at all times and in all places be worked in exactly the same way. We can measure in peace the requirements of war, arrange for them, and guard against disaster. Under the old system this was impossible. We had one peace system and one war system. Now we can have field hospitals organised and marched about at Aldershot or the Curragh, and a thorough training given to all concerned.

83. (E).—**It is economical.**—By preventing the waste of officers, orderlies, and equipment, in unemployed regimental hospitals, either in the field or in quarters, it guards against loss. By utilising instruments, microscopes, drugs, and special wards, it aids economy.

By lighting, warming, washing, and cooking being done in one place, it prevents waste. In the field it saves transport and hospital equipment being wasted in small regimental hospital establishments.

84. (F).—**Good nursing.**—By giving us a body of nurses, the army hospital corps, cooks, compounders, and sick bearers, specially trained and permanently serving in the hospitals, we obtain great assistance in the field or in garrison.

This was impossible under the old arrangements, as the orderlies were ignorant, and no promotion rewarded the careful and intelligent. Now we have all this foreseen. We have a corps of men trained to carry the wounded, trained to act as sanitary detachments, and they

are men whose whole hopes of promotion depend on doing good work in the hospitals.

85. (G).—**Sufficient garrison staff.**—It enables us to increase or to limit our garrison medical staff in accordance with the necessities of the place, and does not tie us down to a fixed number as the old system did—the same in healthy as in unhealthy places. It guards against the waste of men in the one case, or the overwork of them in the other.

86. (H).—**Develops "esprit de corps" and professional efficiency.**—By withdrawing us from the subordinate position in regiments, where our professional *esprit de corps* was injured, and our position as a unit in the army departments quite kept out of sight, it enables us to stand on our own basis simply as medical men. We can claim our rights, not by the fact of being in any regiment, but simply as army doctors. It gives us a place in the army never held before. By withdrawing us from regiments friction with other corps is reduced to a minimum; and we are free to develop our ancient traditions and our own *esprit de corps*, a thing impossible in the old days. Until we can appeal to the young officers of our department solely and simply on our *esprit de corps* as doctors, so long will we be weak and divided.

Professionally speaking, we have all to gain by union. In our petty little regimental hospitals we could never become good doctors. We had no intellectual friction, little real medical life, and the senior and junior officers had no opportunity of comparing notes or receiving information. Now we can all develop our knowledge and become better doctors than ever before. All good service done now will now count to the credit of our department, and all neglect or carelessness will equally injure us. We are taught then to live for our department.

87. (I).—In the larger garrisons we can have our own messes, libraries of medical books, clubs for papers and periodicals, good laboratories and microscope rooms, and all the essential aids to efficiency. By having messes in a few central garrisons the young officers can be kept together, and a comradeship and fellow-feeling developed that will always be of use.

88. (J).—**It equalises the roster** for home and for foreign service for all officers, and abolishes or reduces to a minimum the great irregularities which occurred in the old days by some officers never going abroad, and others being constantly on foreign service.

89. (K).—**Training in administration.**—By making the senior medical officer in each garrison act as director of all medical arrangements in the garrison consisting of several corps he is trained to administration and to deal with army medical questions on a large basis, not, as in regiments, from a very narrow standpoint. In this way a crowd of officers are learning to administrate, and they eventually will become our Directing Medical Officers. In the old days a man went from a small cavalry regiment or battalion to direct the medical affairs of a division of the army for which he had no training whatever.

90. (L).—It abolishes the absurd system of making a staff doctor, however senior, junior in hospital to a regimental doctor, however junior—an anomaly constantly seen in old days, depressing to the department and detrimental to the efficiency of the service.

91. (M).—**A definite uniform.**—It makes one definite uniform possible for the Army Medical Department, whether officers, sergeants, or orderlies, and prevents the extraordinary variety that always existed on this head in the service. Such a variety was entirely opposed to efficiency, and rendered it impossible to find out a medical officer. Now a clearly defined rule can be laid down, and a distinct uniform made compulsory.

92. (N).—**Provides for the militia and volunteers.**—The medical care of our now very strong auxiliary forces can be quite easily carried out during embodiment under the unification system, as the sick men can be admitted at once into the garrison hospitals, or, if in camp, into the divisional field hospitals. If we were trusting to the old regimental system, each regiment of militia or corps of volunteers would on embodiment have, under great difficulties, to organise its own little hospital.

This would be very troublesome, but now when a militia corps joins a division or a brigade on embodiment, its sick can be treated in the hospital attached to the brigade.

What is wanting in the army, whether with the regular or auxiliary forces, is efficient and workable hospitals.

The actual presence of medical officers with corps in camp or barracks, although essential, is not so all-important by comparison with having the hospitals thoroughly ready and up to the mark. If an officer or soldier gets sick or is wounded, he can at any time be removed to hospital, and it is there efficiency is wanted.

In the old days medical officers really wasted their time quite uselessly in having to attend musketry parades and cavalry drills, where accidents never happened, or if they did, a medical officer on the ground, without appliances or ambulance waggons or stretchers, was quite useless. How many weary hours have we not spent attending these tiresome drills, when one forgot one's professional work and learned nothing whatever. Practically, if we acted on the principle of being constantly hanging about the soldier, waiting for accidents to happen him, we should never leave his side, and we would never get any practice. It is at stables, or when out amusing themselves, that, as a rule, accidents happen men, and it is to hospital they should be at once taken.

93. (O).—**Finally, it gives us all a centre in the service to work round**, and a department to live for in every garrison in the empire. Up to the present day a medical department properly so called did not exist in the army, for that name could not justly be applied to a few principal medical officers almost powerless over their department, and a crowd of homeless staff assistant surgeons quite unorganised, doing every fatiguing and unpleasant duty.

To-day every doctor in the service is combined in a single medical corps, standing on its own footing, wearing its own uniform, performing its own duties, and enjoying its rank and privileges on the sole bases of being army medical officers.

The irregularities and unfairness of the old system are passing away,

and the department is awaking from its old torpor to a true professional and army life. Even in the short time since unification was established considerable advantages have been gained by the department, and many more have yet to come.

We, however, stand now on a clear and defined basis.

It is a basis on which we are perfectly unassailable, and that standpoint is professional efficiency.

94. We want to be better doctors in war and in peace, and it is well that our cry should be heard and understood. It is no clamour for absurd privileges or boons; it is a true and sensible movement that cannot be laughed down or derided. It appeals to the common sense of England, for it is thoroughly a movement towards efficiency and towards economy, and modify or change how we may, it cannot be found fault with on these grounds.

It appeals to the civil profession in medicine by its cry for a more thorough medical life, a closer application to our own scientific duties, and an aiming at hospital efficiency in its widest sense. We do not want to ignore medicine. We want to stand by it. To be known as doctors. To wear a doctor's uniform and that only. To base all our claims for rank and pay and rights of all kinds on this basis above all; we are doctors, soldier-doctors it is true, but above all doctors.

95. It appeals to the soldier on irresistible grounds. We want to be good men at our work, to stand by you all the better in your hour of need. The more we become proficient the better for you. The old system injured us as doctors in peace, and would have left us powerless to help you in war. Now all is changed. You have fine traditions. So have we. You have *esprit de corps*. We want it also. You stand up for your position as soldiers; we for our as doctors. There is no cause for a quarrel between us. We can get on capitally together. But we want a corps of our own. We want to be able to appeal to our young men not as Buffs, or Borderers, or Connaught Rangers, or Highlanders. We want to say to them you are army doctors, that and that only, and we can only do so by having a corps organization. We shall stand by the service and the soldier as we have always stood by it, sharing every danger—sharing every success—with you in the glorious advance—with you in the day of danger and distress. We have marched with you, sailed with you, served with you everywhere. Often killed in battle, often wounded, constantly sick and swept away by epidemics. As we have done in the past so we shall do in the future, unfaltering, devoted, true to the soldier to the last, but we want a corps to live for and a tradition of our own to be developed.

We want to see our department and our officers and men as proud of the Army Medical Department and its uniform as the best regiments are proud of their tradition and their good service, and it is only by so developing this corps-feeling we can ever hope for efficiency. Unless we are proud of our department, unless we are proud of being doctors, we can never rise to any efficiency. Unification means promoting that efficiency, and it is well to let this be clearly understood. The question has become so involved with sentimentalities that the central fact may be lost sight of.

96. Unification means one thing only. It means we want to be

doctors. We want to stand or fall by that rallying cry. We want a deeper professional life, and we can only get it by unification. We want to be with the soldier. We want to be able to assist our men well and thoroughly when ill in peace time. Unification alone can aid us to do so.

We want to be ready in war, to give heart and soul to our wounded comrades, and to be ready to aid them in an efficient and practical way.

Unification and it alone enables us to do so. No other road remains open. This and this only is our true path to advance upon.

97. Finally, when we accept boons or ask for concessions, we want to ask for these on one clear, open, and unquestionable basis, that of being simply army doctors and officers in the army entitled to perfect equality with all other officers.

We desire to stand by this faith, and if we progress we progess with it; and if we fall we fall for a known and an apparent reason.

SECTION VI

THE WANTS OF THE ARMY MEDICAL SERVICE

98. If any officer of the military or medical departments of the army imagines that in aiming at unification principles the medical officers are striving to do less work or to lead easier lives, they are thoroughly and entirely mistaken. It means harder work, more responsibility, and more attention to duty than ever was necessary under the regimental system. The medical department will by it be entrusted with most arduous responsibilities, but its hands will be untied to do the work. Heretofore we have led in regiments by comparison an easy life. But now we will have far harder work but a freer field to work in.

The principal is so true, so easily defended, and such a thoroughly good one to stand up for, that no drawback exists in urging its complete acceptance by the army and the profession. We can all, without fear or shame, stand up for a cause that aims at making us in peace times better doctors, and that in war time enables us to assist and succour the wounded soldier in the field in a way quite impossible before. Up to the present day in our aims at progress, regimentalism constantly intervened as a principle fatal to all real development, but now that old man of the sea has at last been removed from us. Nevertheless, although unification is essentially true in principle, and that not a single valid argument exists against it, it has been indifferently received, and in several instances clamoured against. There

must be reasons for this outcry, and it would be far better they should be clearly pointed out. Why should a body of professional men, such as army doctors are, oppose, as some do, the development of a system so true in its every bearing? Let us examine the reasons.

99. **Up to 1873 no Medical Department as an army unit really existed.**—This may seem a strange assertion to make, yet it is really correct. Until 1873 the department's strength and energy was subdivided and frittered away in petty regimental streamlets, and, whether as regards army position or prestige, no real medical department existed.

It is true there were some forty principal medical officers and some 300 staff surgeons and assistant surgeons, but the former officers were quite devoid of any real power over the medical officers, and the latter were merely engaged in filling up the casualties in the ranks of the regimental doctors. The medical department really existed as a sub-department of every regiment classed officially with the pay service and the quartermaster's department. To-day this is all changed. We are now relieved from these dead-weights, and a free field exists before us. The medical service will no longer be either fostered or depressed by extraneous aid, and it must stand or fall by the test of its own efficiency.

That it can develop itself when given a fair and open field to work in, and when its wants are duly met, no fear need exist. Subdivided as we have been up to the present time in a crowd of heterogeneous groups, how could a departmental spirit exist? With a hundred varying regimental subdivisions, dressed in a hundred varying uniforms, never concentrated together, with no means at our disposal to preserve our traditions or to develop our *esprit de corps*, how could we but be weak? Divided still more by the great division of regimental and staff doctors, the former monopolising all the comforts, and the latter suffering all the hardships of army life—was it not but natural that to be a non-regimental army doctor seemed at first to many of us not to be a pleasant thing? Let such a system of subdivision be tried on with any corps or department and see how *esprit de corps* will perish. Try it with the Royal Artillery and see if its spirit will survive.

100. In the old days the Royal Artillery, instead of being grouped in batteries and brigades, was scattered over the army at the rate of two guns to each battalion of infantry.

Such subdivision was fatal to its efficiency, and was stopped long years ago. But let us imagine that the artillery had remained until to-day scattered by single guns attached to every single regiment of cavalry and battalion of infantry in the army.

Let the theory be yes, truly, artillery is useful in an army, but each regiment should have its own gun. Who can look after it so well as the commanding officer of the regiment whose men it is to protect? Let each gun be furnished with transport, and let its interior economy be watched over by the regimental commanding officers. Let the gunners and the gun officers be all dressed in the regimental uniform of the corps to which they are attached. On the line of march let each gun follow its own battalion distinct from every other gun in the army. Although there may be in the same garrison five or six guns, all

attached to as many different regiments, let them be wholly distinct in every way, and let the officers never meet together for drill or conversation. When one regimental gun in action has spent all its ammunition and is practically worked out, let no one have the power to detach another gun or its gunners, or a round of ammunition, from a regiment not engaged to give assistance, because, forsooth, each regiment would have a gun of its own. Let there be gunnery inspectors nominally responsible for the artillery service, but let them have no power whatever over the artillery save to count the cartridges half-yearly or such like duty, and let a crowd of gunners not attached to regiments be kept constantly knocking about from place to place and doing all the drudgery of the artillery. Let every artillery man know that the detached gun system had already failed in the field, was abandoned by every other European army, and was perfectly unworkable in peace. Let them, although heavily engaged under fire, be called non-combatants, because artillery do not themselves charge positions or capture guns. Let the decorations given freely to other corps come rarely to them.

Do all this, and say where will artillery *esprit de corps* be? Simply nowhere. But that system does not exist for the gunners; they are all concentrated in batteries; they are responsible for all their own duties; they have a grand tradition, and wear on their appointments memorials of good service done.

They have a history and a noble name, and how could they have ever had it under such a system as I have imagined.

For under that system, however well each regimental gun worked in action, however well the gunners did their duty, it is to the officer commanding the regiment all the credit would go. However well the medical men worked in the by-gone campaigns, the credit went to the regimental commanding officer, and the department as a department is never mentioned.

101. Now we have a fairer system. We stand or fall by our department. If it is weak and bad, we fall with it; if it is devoted, brave, enduring, full of hard work, skilful, we rise with it. This means the basis of *esprit de corps*. These are the elements of all comradeship and brotherhood in any service. That we can develop them if we get a fair field, no doubt whatever exists.

But until 1873 we saw the staff doctors uncared for, hurried about everywhere without prestige or position, and employed in every unpleasant medical duty, and very many of us dreaded becoming like them.

The fear is groundless, it can never occur again. The support we imagined we had in the regimental system was a false support; it paralysed all professional efficiency; it ignored our grand profession; it rendered us less useful than we should be to the soldier and the country; and in war time it left us helpless and useless in the field of battle.

That system is now dead, the long-suffering staff doctor is abolished, we are now detailed to garrisons almost permanently, and it is our fault if we do not organise our comforts.

102. Another cause tending to make army doctors dislike unifica-

tion was the fear that by it they would lose the protection and the shelter their regimental commanding officers afforded them in any question of rights, privileges, or boons, or the representation of grievances or the like. Seeing how utterly powerless in the old days the directing doctors were to guard the interests of the medical officers, and how centralised all authority was in the regimental commanding officer, many medical officers looked forward with dread to the day that would take them from their regiments and reduce them to the friendless level of the old staff assistant surgeon. This fear is also groundless. Increased power has been given to the directing officers, and they will use it doubtless as they should do to guard the interest of all.

The protection and assistance that in every corps or department should be derived from the kind advice and friendly services of one's seniors will now develop itself in our department, and we will all be happier for it.

103. Another reason making medical officers dread unification was fearing that, once removed from regiments, all warrants and privileges granted them would be gradually taken away, and that under powerless and timid directing medical officers no one would be left to stand up for them or speak in favour of their just rights.

See, say some of them, how our privileges disappear one by one. Let us cling close to the regiments. Let us hide in every way our departmental sympathies. Let us have complete solidarity with our regimental brother-officers. Let us ignore our position as doctors. All will then be well, for no Government ever attempts to take from us those boons we hold in common with the military department.

Look, they say, at the history of the past, judge from it the prospects of the future. If we unify we perish. It is true it means good doctoring; it is true it means war efficiency; it is true it means professional development in every way; but we are but men after all, and if it deprives us of guaranteed advantages and privileges conceded to us by royal warrants, who can blame us for preferring the comparative drawbacks of regiments with the superlative personal evils of departmentalism.

Here it is difficult to answer them. Sheltered under such an argument, what answer can be given them? But the unificationists have a firm faith in the future. They believe that although it is true that drawbacks have arisen in the past, and that many acts of the State need clear explanation and straightforward answering, that in the end it is better to stand forward as army doctors alone, fighting their own battle, trusting to their own vigour for guarding themselves, and appealing with confidence to the good sense of the country and of the army that justice shall be done. In this we all agree. We cannot exist in the army if this be not the rule.

Our basis for work must be clear, definite, unassailable, and assured. Members of a profession daily rising in the social scale, daily becoming more scientific in its character, daily building itself up on a basis more secure against attack than either church or sword or gown can to-day boast of, working its way ahead, not by powerful interest or the fostering hand of patronage, but by sheer force of hard work,

intelligence, and thorough modern spirit, the doctor serving England in her army cannot exist on dubious privileges, but must be openly and fairly dealt with as a man of education and daily increasing difficulty of production.

104. We who have been with the soldier in every phase of his varied life, we who have been shot down in the battle and wounded in the trench, who have perished by fifty at a time in the pestilences of the great campaigns, who are covered with medals and decorations won in the field, who have been stricken down by tropical suns, or swept away by cholera epidemics along with our soldier comrades, who have shared in every danger the soldier shares, have been nearer to him in suffering in every land than even his own kindred, who on every shore and on every sea have served England honourably, faithfully, devotedly—aye, even unto death, who have struggled more for the comforts of the soldier and his wife and children than even his own officers, who have taken part in a hundred campaigns and have always loved the soldier well, we who have been with the soldier in his service a thousand times oftener than any other army department we do not come on sufferance.

We come as a part of the army, serving the same Queen, serving the same people, willing, if it must be, to die for the nation, but we do not come on any less definite footing. We want clearly defined position, clearly defined and unassailable rights. An equal share of the rank, honours, and rewards with those whose dangers we share. We want protection in our duty and freedom in our work, a defined position in the service, and it is better to claim these things on the true basis as army doctors than by strategem, as it were, to obtain them under the masquerade of hussars, artillerymen, or infantry officers, as we did in the regimental days.

We may briefly notice some points needing examination.

105. **Absence of honorary distinctions.**—When a regiment or corps distinguishes itself in a campaign, it is the custom of the service that they receive permission to place the name of the battle or campaign upon their colours or appointments.

By these memorials *esprit de corps* is preserved, and tradition developed.

When the corps consists of a large body of officers and men, some of whom must share in every campaign, a more general honorary distinction is given, such as "Ubique" and "Quo fas et gloria ducunt" in the artillery and engineers, and "Per mare et terram" in the royal marines. Corps also as a reward are made "Royal" or "Queen's" or "King's," or such like. Small as these things may seem in civil eyes, they are dear to the soldier and soldier-doctor, and form the most pleasant rewards a regiment can receive. Knowing as we do the long and faithful services of army doctors in the century and three quarters that have passed away since Marlborough's days, and the constant share the medical service has taken in continual campaigns, one opens the Army List to find that no reward of any kind exists at the head of the department, differing in this way from every other corps in the service. That army doctors feel this I am certain, and it has often been pointed to by doctors favouring regimental views to show the

neglected condition of the medical service, It seems impossible to answer such a complaint. Take even the latest example—"Ashantee."

106. The 23rd bear the word on their colours, although, as it happens, through no fault of theirs, the share they took in the campaign was principally lying off the African Coast in transports. Seventy-three army medical officers served there, all exposed to disease, many under fire, yet no record, general or particular, would show this to the uninitiated. The average civilian would think we had done nothing.

Many officers feel disheartened at this apparently unequal treatment of the Army Medical Department by comparison with other branches of the service. Whether it be the Crimea, Mutiny campaign, Abyssinia, China, it is in every case the same. We get no record of duty done, although every other body does.

Yet no corps of officers can compare in service with ours, and for this reason. We have taken share in every European campaign from Marlborough's battle to Sebastopol, and in addition have served in all the long Indian wars that built up our empire in the east—a service few other corps have done. The artillery and engineers never went to India until 1857, neither did the commissariat, the chaplains, nor the other departments. We, on the contrary, have shared in all these wars, and some of our noblest acts of devotion have been done under an Indian sun, in the days of 1857, at Delhi and Lucknow, and in the old days before them.

107. We are not honoured with the prefix "Royal" although artillerymen and a crowd of infantry corps are so honoured; we, equally devoted to England, are left out in the cold. Small things like these are often great because they are so small. They are dear to the soldier and the soldier doctor, and we would put up with many a hardship, knowing that by-and-by recognition of good service done would come.

What would be acceptable to many would be the grouping together under one title of Army Medical Corps, or Royal Medical Corps, of the existing Army Medical Department and the Army Hospital Corps. Considering that we will always serve together and that we are indissolubly connected with one another, such a union might well be consummated by a single title being given. In the old days we had Royal Engineer officers and "Sappers and Miners" men, now all are united in a single corps of Royal Engineers, and it tends much to uniformity and *esprit de corps*. There are boons dearer to the soldier-doctor than any increase of pay. Those boons are just appreciation by the State of duty well done, and the recording of it in the way customary in any other branch of the service. Such boons are easily given, and how dearly would they be valued.

It is difficult to dwell too markedly on the bad effect this question of the title of the medical corps has had upon the *esprit de corps* of the medical service. Up to the introduction of unification in 1873 a great body of the army doctors belonged to "Royal" corps. In the gaining of the title of "Royal" by those various regiments the medical officers took their share, and there is no doubt whatever that when the medical officers were unified, it would have been a gracious and politic act to have raised the medical service to the status of a Royal Corps. Not to do so was to level downwards and not upwards, and

the whole aim of English social and political life is to level upwards if possible, and in this case it was absolutely easy and perfectly possible to have done so. It would have appealed to the young medical officers entering the service, not on the rather material basis of coal allowances and extra pay, but on the basis of sentiment and chivalry, two elements absolutely essential in the military life. It would have showed to the more thoughtless amongst the combatant branches of the army that the State did not despise and desire to neglect the medical service, but rather to foster it and treat it with perfect sympathy and equality. It is entirely to be regretted that this was not then done. It has caused injury to the *morale* of the medical service, and weakened its position within the service appreciably, and it should now be rectified.

But in 1878, owing to the complete refusal of doctors to enter the army, a commission specially appointed recommended a change of title for the Army Medical Department. Not one of us but imagined that the time had now certainly arrived when action would be taken by the authorities. We saw the Irish constabulary so rewarded for service in the troubles in Ireland, we saw a crowd of Indian Sepoy battalions so rewarded, we saw several English battalions also specially made into Royal or specially titled corps, and we believed our turn, so long hoped for, had at last come. But rumour says some opposition existed, and we saw ourselves placed in the undignified position of having by our senior officer and representative asked for a new title and been refused, and this too at a time when Sepoy battalions, doubtless very deservedly, were receiving special marks of favour. It is difficult to explain this condition of affairs, but it is absolutely necessary to point out that occurrences of this kind heavily handicap a branch of the service which needs fostering care and not repression.

In the same way the title "Department," as applied to the medical service, is not popular. No one knows what it means.

Leading surgeons in London have said "our young men will never enter a department;" and certainly it is a title difficult of explanation. We are absolutely a corps of the army. A Red Cross Corps, a Medical Corps, or what you will, but as to department, we do not know what it means, and consider that it should refer only to the Head Quarter Medical Office at the War Office. It is quite unpopular, unnecessary, and should be replaced by the title Corps or Staff. It is quite in vain to overlook these minutiæ. Living in an organization like the army it is necessary to take every precaution to guard the *esprit de corps* of young medical officers, for that once broken down, discipline and efficiency are at an end, and it is certain that no corps in the army has need of a more perfect discipline, nor a more complete and thorough efficiency than the army medical service. Whatever fosters that feeling is good, whatever weakens it is pregnant with ill in every way.

Following out the same argument a crest or badge and a motto are all of use.

It is absurd to say these little things are to be despised. Men are not all philosophers, and a badge and a motto have often stimulated to

noble deeds. Many officers look on the Red Cross as a most honourable badge, and one that we should all wear, but doubtless there are others equally appropriate. As to a motto, it has been said that the words 'Semper et ubique fidelis" are suitable for our services. No body of officers of any corps have ever done more devoted, and shall I say more unrewarded, services than our own. Why not give us then a motto? It may in some hour of supreme trial, such as occurs so often to most of us in our varied round of duty, stimulate a weary brother to continue his good work. It is likewise the custom of our service, and why not let the doctors share in it?

108. **Classed as "non-combatants."**—In every army there must be a number of departments whose duty is to provide for the fighting-man. The feeding service, the transport service, the ammunition supply service, the postal service, the provost marshal service, the pay service, the chaplain's service; all these in our army are classed as "non-combatants," and amongst them is included the medical department. It is an unfair classification. The term "non-combatant" practically means, in all other departments, not being exposed to fire or chance of death by war missiles. What is objected to by army doctors is, that it is unfair to class us with those other departments. Take the case of the Crimea—India, where you will. We march down to the trenches, and are daily exposed to shot and shell and sortie. At the assault the medical officers accompany the advance and are constantly under fire.

109. At the Alma, at Inkermann, at Balaklava, at the siege of Delhi and Lucknow, in Abyssinia, and China, where are the doctors? Under fire, and constantly liable to be wounded and killed. We have constantly gotten the Victoria Cross, probably more often than any other corps. The department is covered with medals, some 800 alone, in a single branch of the service. The record of its services in Hart's Army List contains some of the finest records in the book. Then again remember the services during epidemics. Think of the cholera scourge that sweeps over India yearly and carries off so many hundred gallant men. Service during a long cholera epidemic is far more trying than any campaign service, and the great brunt of the labour falls on the army doctors. Yet all these things are never remembered, and we who go through campaigns and epidemics are branded with a most unjust, unfair, and in every way misleading title which we perpetually repudiate. Our position is simply this, that the various corps of the army may fight amongst themselves as to who is combatant and who is non-combatant; we maintain that no word shall be used to us, nor with any reference to us, which will in any way give colour to the idea that our labours and our duties are one whit less noble, less important, or demand less sacrifice, less courage, than those of any corps in the army, be that corps what it may be.

We are the medical corps, and we accept with it all its responsibility and all its labour, and we claim for it all its due honours, all its high reward; we claim for it the most absolute, the most complete, the most perfect equality of treatment, such as is given to the best corps in the service. With these titles, of combatant or non-combatant,

we have no concern whatever. The army may designate its departments with any class titles, or designations it pleases, but to us they shall not apply. If they do our prestige suffers, indifferent men will come to us, and our efficiency for good work to the soldier will suffer.

The great Lord Dalhousie wrote a minute, in which he said the custom of applying the term non-combatant to army surgeons should quite be abolished.

Lord Chelmsford has spoken in this most open and chivalrous way against this odious word, and the whole medical service feels that while such an untrue and injurious title is applied to a corps like our own, we will be completely at the mercy of the thoughtless and careless ones amongst the officers of the army who have ever used this odious word as an excuse for all the neglects of which we complain.

Quite recently it is reported that a confidential decision has been given that a medical officer, being a non-combatant, is never to be saluted by any combatant officer. Such a decision naturally leads to a determination on the part of medical officers to salute no combatant officer, and as a consequence discipline is thoroughly shaken and great injury done to the inner life of the entire army. The basis of this decision is said to be that the Army Medical Department are non-combatants, and hence not entitled to be saluted. England never meant this to be the case. We all of us feel that the people of England never meant that in the national army we who come as physicians should occupy a depressed or inferior position simply because our mission is to bind up their children's wounds, to mitigate and render less intense human suffering.

Even if public opinion was so far in the wrong as to imagine such a state of things should exist, it would soon be educated to the right view by finding every man of any independence of character quitting the medical service, and as a consequence a most utter breakdown of all the arrangements humanity demands to-day for the care and protection of her wounded children.

We desire neither to be petted nor oppressed, but simply to live a perfectly just and fair life in the army, with absolutely equal treatment with the soldiers with whom we serve. We ask no more, and it would be absurd to imagine how we could ever be contented with anything less. We shall salute our seniors of every class and corps, but we also make this conditional on all senior medical officers being saluted by their juniors amongst the combatants.

"If," said a leading physician, whose name every one knows, "a sentry stands on his head to the general, likewise he should stand on his head to the surgeon-general;" and this, although a rough way of putting it, is, I think, the common opinion amongst military surgeons.

Absolute, complete, and perfect equality of treatment, this is the keynote of all our demands, and on such a basis everything is possible. Without it nothing but perpetual friction can result.

110. **Permanent warrants.**—The continuous change in the warrants under which the medical officers serve is the cause of much anxiety to every one in the department. Take Sydney Herbert's warrant of 1858.

It has always been looked on as our Magna Charta. In it the old rank of surgeon was made equal to that of major in the army—a just concession in every way. Hardly had the warrant been a few months in existence when a new reading of the warrant was published, stating that although ranking as a major, the surgeon should be junior of the rank always, a most painful proviso. It deprived the surgeon of position and many advantages. At once the medical service took alarm, the civil profession was surprised, and, as has always been the case when rights are meddled with, agitation commenced. Questions in the House, appeals, deputations, discussions in the schools, and the usual routine of agitation was set to work. Of course the objectionable reading was cancelled and surgeons were made to rank with majors as before. The doctors won by agitation, discipline was shaken, and the State gave way. But a new question arose. An Indian commander-in-chief, seeing the surgeon mounted on parade as became his field rank, made him dismount on parade, and laid down a rule that no surgeon, although drawing forage and mounted on the line of *marck*, was to appear so mounted on parade. Again agitation commenced, again deputations, again questions, again letters in the journals, and again it was decided that they were always mounted officers on parade, and the commander-in-chief was wrong. But the injury done to the doctors by the public dismounting of a senior officer rang through the service and did much damage. It injures *morale* and shakes men's faith in warrants if such things can occur. But in 1873 came a new warrant, and the much-struggled-for horse and forage were taken away at a blow. Again agitation, again questions in the House, again clamour and discussion in the schools, and again horse and forage were given back. Discipline again was shaken, and the old confidence, where was it? Gone, they say. Men's minds get shaken by such variations, it ruins discipline, and it paralyses efficiency that such things should occur. But they occur constantly.

111. Hardly, indeed, had the horse and the forage question been settled, when a new warrant was issued in 1876, cutting at once at the root of *esprit de corps* in the medical service. It was decided that in future doctors would be entered for ten years only in the army, and then sent adrift with one thousand pounds gratuity.

The warrant was received with surprise by the medical schools, who refused to be attracted by it, but with sorrow and the deepest regret by the medical service, who saw at once that the axe was indeed laid at the root of the tree of efficiency.

But what can have been the feelings of the private soldier and his family, who saw that in future the medical service of the army was to be the place where the youthful physician was to be trained, and once trained to be turned adrift.

That no experienced medical officer was to be allowed to remain in the army medical service. It was intensely a question for the rank and file of the army, but the proposed system broke down, not by any remonstrances from the military press, or the military members of the House, but solely by the common-sense and independence of the medical schools, who, in this case, acted most devotedly, and the scheme perished by the complete absence of candidates at the examinations.

That is to say, the medical profession by its action saved the army from a most serious calamity, viz. the filling up the ranks of the service with broken-down medical men, the failures of the profession.

Two wars now broke out, the South African and the Affghan war, and we saw the extraordinary sight of an army of a great nation absolutely without medical candidates, and the army in Africa medically attended by many chance civilian doctors. The urgency of the case and the strong expression of public opinion, however conquered, and, in 1879, yet another warrant appeared, overwhelming the medical service with pay, coals, and relative rank. The young men from the schools, who, in 1876 were only to be taken in for ten years and sent away with one thousand pounds, were now tempted with captain's rank, large pay, abolition of examination for promotion, large retirement at twenty years' service, and a whole host of material advantages.

But the great burning questions were and are still not dealt with, and the English taxpayer is now paying a heavy sum to secure medical officers, simply because the great fundamental grievances of the doctors have never yet been dealt with.

The young officers enter as captains, thereby weakening our own internal corps discipline, and irritating the combatant officers, but the fault is in no sense ours. The young medical officers seem to feel that they are conferring a favour on the army by entering it, and how can their discipline be so great as if they knew that crowds were ready to take their places?

Money and coals will not make the department efficient or happy. Equality of treatment will, and when is the lesson to be learned by those in authority? The gates of Sandhurst and Woolwich are crowded with candidates for the army, the militia gateway is literally choked with the crush of competitors, but the medical service has to go begging to the civil profession for candidates, and none of us know from day to day how we stand in the service.

114. What we need is permanency in our privileges. For the sake of a couple of thousand pounds a year forage was withdrawn from the doctors contrary to the old warrants, but it was a poor economy, as it rang through the civil schools, and frightened men from entering the service. Examinations came round, and no men appeared. Men dreaded leaving their regiments on this account. They say "The privileges held in a regiment in common with a crowd of captains or majors are never touched. So long as a right is held in common with the military officers of the army it is practically safe. Once," say they, "leave the regiment, all is unsafe." This variation leads to heartburning, agitation, appeals in the papers, the civil schools get frightened, the department gets a bad name, its discipline is ruined, and in the end the department gets all it wants, and more, after clamouring for it loudly. But the shock to discipline is ruinous, and after all the grace of the boon is gone, it has been wrenched as it were from the State, and a body of officers full of discipline, loyal to their duty, devoted to their work, and anxious to be good servants of the State, get disheartened, and a number of useless men make it an excuse for every laxity. Such evils as these are easily corrected, and should not occur in future. Liberal treatment means good service, and true devoted men will come

to a service that treats them well. But precarious privileges that melt away in a month or two attract none save the indifferent and the useless who come to the army to idle and to lounge.

115. **Military command of the Army Hospital Corps.**—Very much feeling has been expended by some old school officers, both military and medical, on the question of who should command the Army Hospital Corps, in other words, who should have the discipline of the hospital subordinate staff. The question has never admitted of a doubt, that as the ultimate working elements of any hospital must finally be the doctor and the nursing attendant, that the latter must obey the instructions of the former, the skilled director. No one has ever questioned this basis of argument. The nurse cannot command the doctor, and the doctor should be able to order the nurse to carry out his instructions. In permanent civil institutions it may be possible with elaborate administrative staffs to have a third individual to whom the medical officer or the nurse could appeal in case of neglect on either side. It is not possible, having in view the many contingencies of military service to have that third party present in every army hospital, and hence the disciplinary control must fall into the surgeon's hands. Such has been the end of the conflict in every army where the question has come up for decision. Let us see if it be possible to work on any other basis. One may say at once that the power of punishment is after all a painful and unwelcome task, but it has its set off in the fact that he who punishes can also reward. Let us suppose, for example, that with our detached garrison and field hospitals, it was possible to have with each a separate military commandant. In the first place he should be senior to the senior doctor, and must at least be a colonel in the army. Again, he should be the best specimen of a staff college officer, or at any rate an officer of rare discrimination and tact, and able to ensure, by his efficiency and absolute scientific professional qualifications, the respect and esteem of the very critical body of physicians he commanded.

As he would have to begin his work of commanding a hospital when very senior, as there would be no posts where he could learn his duties as a junior hospital commandant, he would begin as a very senior officer to learn a routine and an administration for which he had received literally no training.

Owing to his absence of scientific medical knowledge he would be unable to overrule any single opinion of the medical staff, and would be quite unable to decide on the movement of a single case of illness, nor the evacuation of a hospital, nor could he decide in any way as to the efficiency or non-efficiency of a nurse. Without a high sanitary training he would be unable to estimate with any degree of accuracy the value of sanitary precautions or sanitary neglects, and he would find himself quite in the hands of the scientific officers of the hospital who would move him as they wished if he was weak minded, or be in perpetual friction with him if he was obstinate.

But even granted we found an admirable Crichton who filled all these points to perfection. Full of tact, highly cultured, the friend and helper of the physician, he is but one man and if he falls ill who is to act for him during his illness. Must we have a raw outsider

brought in from some regiment or staff appointment, some military failure in his own line, and must we begin to educate our master anew.

But say he is strong and healthy and never gets ill. Yes, but the hospital breaks up into sections or groups, and all military hospitals must do so, who is to command the detached section, or the half hospital left behind with wounded on the field when the head quarters of the hospital move on? In our time of utmost need we would be left helpless, and so it must be. The command of the whole medical and nursing staff must centre in the senior doctor, not by his special desire, not to satisfy noisy clamour, not to take him away from more urgent work, not simply because no one else can do it. He who has the special knowledge, he alone can overrule, he alone can decide, his opinion alone is final. All outsiders are but playing with the subject, and are ever liable to frightful mistakes.

The command has come to us logically and so must remain, not as a coveted advantage, but as an absolute necessity, the very burden of our position, a labour and a duty we can neither shirk nor shift to others beyond ourselves. It is not a thing to be prayed for and hoped for, it is a sad duty when one has to punish some neglect, but it has also its sunny side when the power is also there to reward duty well done. When in 1873 we for the sake of military efficiency left our regiments, and broke up our former associations, we undertook amongst our new duties the command of ourselves and our staffs. When we left the command of colonels of battalions and regiments we assuredly never meant that we should place ourselves under the command of any body of officers of less experience or status or defined position that they were.

They at least were colonels commanding regiments, and any commandant we would serve under should certainly be officers in no way junior to these; but we have shown that even military officers of high rank would be unable efficiently to command hospitals, and the arguments apply with far more force to any officers of junior status. Least of all would it be possible to give over the directing control of the hospitals to individuals nominated by ourselves from amongst those subordinates whom we had chosen as being worthy of reward.

The break down of the French intendance system took place when military staff officers of high rank were attempting to govern the hospitals, but perfect chaos would soon result if the authority in a hospital were given to nominees of the physicians themselves, chosen out of the nurses simply as men of straw afraid either to oppose the views of others or advance those of their own.

119. **Dress.**—The question of dress is important in this way. For years the staff medical doctors were poorly dressed, with ugly appointments.

The story of their improvement in this direction is the story of a wretched struggle and a final conquest, but, it seems to be wiser to avoid these struggles on the part of the authorities, and to give medical officers a dress, *distinctive* certainly but not ugly. Since 1873 much improvement has taken place, and will no doubt continue. Equality

with the rest of the army is important in this as in other matters. The struggle for every improvement in dress the department gets teaches men indiscipline. Agitation gains everything, and nothing comes as a free gift. In this way men learn to agitate, and order is interfered with. We need good handsome uniform, but distinctive and departmental. We serve in every branch of the army, and for that reason should be so dressed that in a well-dressed cavalry corps or elsewhere a medical officer should not be utterly conspicuous by ugly uniform.

We agree with a crowd of officers of every branch of the service that gold lace and trumpery embroidery is but poor ornament for a soldier. But that is not the question at issue. While it is the custom of the service to wear it, we must sail with the stream. When the army discards it, we will do likewise. But to send a badly dressed officer of the medical service to be with well-dressed cavalry or horse artillery injures the *morale* of the younger men of our service, and people think the State considers any dress good enough for its medical servants.

120. This is wrong. If we want to develop *esprit de corps* and a pride in our department, the dress is one of the little things that mean so much as an aid to that *esprit de corps*. Equality with the army is the true principle to act on. Yet every department is dressed more handsomely than we were; and no department needs it more, for we serve with the soldier under arms.

It seems now absolutely essential that the uniform of the Army Medical Department and the Army Hospital Corps should be assimilated. To-day we wear scarlet, the men wear blue. However unfit scarlet may be as a field dress, as a uniform for dress or social purposes it will long remain; and there is no reason why the Army Hospital Corps and ourselves should not wear it as a full or parade dress, both wearing grey or khaki as a field dress.

It would be in every way advisable that the officers and men of the Medical Corps should wear the Red Cross badge as a common distinctive mark. However much one may doubt the value of such marks for a service like our own, which fights with savages and fanatics who spare none, still it is a point gained to secure a suitable badge of any kind, and the Red Cross seems such. It is the badge of humanity, and must as the years roll on become the most dignified of decorations. To allow the men to wear it as they now do, and for us to ignore it, is to weaken the bond that should and must exist between officers and men of the same service. We are absolutely a military brotherhood banded together in the cause of humanity, and from the Director-General down to the junior orderly in the corps we should be animated by the one idea of devotion to the sick soldier. A badge common to all ranks facilitates such a feeling.

On so petty a question as the colour of our uniform it would be the greatest pity if any pain was caused to the medical officers by changing their uniform to blue. It would be a levelling of the officers to meet the men, and for this there is no occasion. The medical staff have worn scarlet for a century and a half, are most devoted to it, and there is no reason why for dress purposes they should not

continue it. In the field modern warfare requires less conspicuous colours, although it might be questioned whether in war the whole medical corps might not wear scarlet as a protecting and distinctive badge of the medical services. An assimilation of the uniform of the Army Medical Department and Army Hospital Corps is, however, absolutely necessary which ever way the assimilation is made. The authorities can in this matter show consideration and tact, and refrain from injuring the *esprit de corps* of the medical service.

121. **One medical officer per regiment.**—To a certain class of medical and military officers the whole of the difficulties of military medical organisation would at once (they say) vanish if their demand of one medical officer per regiment was granted. It is not difficult to dispel such an illusion. Every medical officer admits that in the field each unit should have a medical officer with it.

In the field there is a constant liability to sudden and severe injuries, and rapid and detached movements, which render it advisable to have medical aid with the unit at all times ready for emergencies. The fact is, such a medical officer is simply a detached portion of the divisional field hospital attached for convenience to the unit, and it is our interest to make him as complete as we can, to enable him to treat trivial cases altogether, and to render first aid to serious cases in an efficient manner. It is our interest, while keeping within these lines, to complete the temporary regimental aid to a good standard, by giving medicine panniers, an hospital sergeant from the Army Hospital Corps, an ambulance waggon, and some few cooking utensils, so that the medical officer may not be useless if detached. Even if no accidents or casualties occur, a medical officer aids the *morale* of the soldier, and he himself is prevented from going to grief from sheer idleness by the campaign being, as a rule, short.

In peace all this would be reversed. It would be a complete waste of a physician to allow such a man to spend his years looking after the few men of a battery, or engineer company, and nowadays even a battalion, if not on the roster for foreign service, is but a tiny group of men. Such a medical officer, attached *pro tem* to a corps, would be rapidly going to the bad from idleness. He would not do duty in the garrison hospital unless it so pleased him, for an intelligent idle man would so play off his medical superiors against his military superiors that he would do only what pleased himself, and that would be very little in some cases. Shut off, then, from hospital duty, he would be merely an inspector of prisoners, and would send sick soldiers to hospital for treatment. But it is said he would be a sanitary officer and the physician of the sick officers. This is quite questionable. Placed by himself in a battalion he would find it difficult to act independently as a sanitary officer—a post needing great independence of character and real ability. The petty sanitary questions of a battery would not keep a man employed, and in a battalion his recommendations would not compare for value and weight with those of the sanitary officer now generally existing for the garrison as a whole. To say that he would be the physician of the officers is also questionable, for the true physician for the officers of the garrison is the specially chosen,

specially qualified, and absolutely efficient garrison staff surgeon, whom we all ask should be appointed for five years to a garrison to look after sick officers and their families.

Medical officers asking to be appointed to battalions would also be as a rule young men, to whom the glamour of a regimental appointment would be attractive; but such young men would often fail to command the confidence of officers' wives and families, and certainly could not compare with a chosen officer of special endowments, whom it is the absolute interest of the army to demand for each garrison. When we remember also the difficulties about foreign service, about detachments, about the frequent changes from battalion to battalion a soldier now undergoes, and when we bear in mind the frictions about mess subscriptions, band subscriptions, and general status in battalions that would certainly arise, it is better to let the question drop. We can make the garrison hospitals every day more efficient, and far more really useful than ever the old regimental hospitals were, and by the garrison staff surgeon system we can produce a far more efficient physician for the sick officers than the chance chosen officer which the regimental medical officer would be under this proposed system. Into such easy and idle billets a certain number of young men would go for the sake of the supposed honour of belonging to a corps, and a certain number of seniors desirous of an easy, idle life would also contend for such appointments. They would never attract the best men, as no senior officer after serving in such an unimportant post for five years would ever command the confidence of his brother medical officers if placed in responsible posts afterwards. We have had quite enough of the ill effects on efficiency resulting from the old regimental system, where at any rate a medical officer had an hospital and a medical officer and some orderlies under him, and some large questions to deal with, to learn us to avoid reproducing a kind of sham representative of the old regimental surgeon, who must from the very nature of his post be almost inefficient from a professional point of view. In a campaign we will give to every unit a medical officer as a representative of our corps, and we can guarantee his average efficiency, but if it be in the power of any medical officer to hide himself for five years in a petty appointment without any hospital work or any medical duties properly so called, then we will have in the very heart of the medical service a deadly and fatal wound which in the end will kill our efficiency, and by so doing injure to a great degree the comfort and the efficiency of the army as a whole, and of every individual in it.

122. **Decorations.**—Very much heartburning has existed for years in the Army Medical Department at the rule which places them on a footing of inequality with the combatant officers as regards decorations. Nothing would be gained by dragging up examples of the extraordinary inequality of the rewards received by officers taking part in the same campaign, sharing the same dangers, and naturally expecting the same rewards. So long as this inequality exists, so long will agitation and dissatisfaction also exist. We want complete equality of treatment with the army of which we are an essential part, and which could not exist without us. The way to achieve this is as regards decorations

to allot so many to the medical corps of the army on exactly the same proportion as the combatants receive theirs. Thus, if 10,000 combatant officers receive 500 decorations, how many should 1,000 medical officers receive? These decorations should be published to the army, so that the whole army would know how many were available, and in the case of the medical service the Director-General should have a very large discretionary power in the recommendations. We must be silent if he decides. He is our chief, our spokesman, our representative, and we must stand by his decisions. He must reward and he must punish. It is the logical outcome of our new organisation, and we must accept the position, like it how we may. There is without doubt at present a feeling of unrest and doubt as to who is really responsible for the paucity of our rewards. The Secretary of State for War, the Commander-in-Chief, the Director-General, the various commanders great and small in the field, are all supposed to have it in their power to give or to withhold our decorations. We would be benefited by knowing who is finally responsible, and by knowing exactly what proportion we should receive. It would stop all idle clamour, silence grumblers, and remove the whole matter from the secrecy and mystery of the present condition to the clear light of day.

But no class of any order should be withheld from us. We want a fair field and no favour, and if we win we want the prize, and if we fail we fail. The G.C.B. has never yet been given to us, and we need to have it absolutely open to us, all rules to the contrary to be cleared away, and an open course left to us for the race. If this cannot be done, and we are to go on as at present, ignorant of who is our rewarder, doubting now, hoping then, ever in fear that none may come, then we would be far happier with none. The chaplains receive no orders. We must learn to exist without them, only we need the whole thing to be made clear. A warrant would be issued stating that we should receive no decorations, but that the love, the regard, and the esteem of the sick of the army should be our true reward. We would then, at any rate, know how we stood, and heart-burnings would cease, and we would live more than ever for other ideals.

The day, however, is not far distant, nay, it is now come, when the service of humanity must have its reward. A chivalrous order of the Red Cross, with all the hierarchy of knighthood, will assuredly one day arise for the rewarding of services rendered to the sick and the suffering. The past ideals of feudalism must give way to the nobler feelings of the present day, and the men who serve in the cause of human suffering must come to the front.

England might well lead the way in such a work, and we army surgeons, putting on one side the badges of the old knighthoods, might aspire to that new chivalry of the Red Cross, which is doing so much to alleviate human suffering.

If thought desirable, the Albert Medal could be expanded into an Order, with a definite grading of knights, and called the Order of Albert, and thus perpetuate for ever the name of a prince in so many ways an ideal that all may copy. Very recently we saw the Order of the Bath extended to reward the volunteers. No difficulty

apparently existed in accomplishing this most excellent step. It could also expand for us, and a definite share of G.C.B.'s, K.C.B.'s, and C.B.'s, be allotted to us, and all complaints would then cease.

123. **Medical officers' messes and library arrangements.**—The more one studies the facts concerning the introduction of unification into the army the more one sees with what complete absence of tact or sympathy it was forced on the service. No one who discusses the question of organization calmly and logically but must have seen that a non-regimental or divisional system was the only true system on which to work, but unfortunately a system in itself intrinsically good was rendered unpopular with the army and the medical officers by the inconsiderate method employed in introducing it. If ever an example of levelling downwards is needed, the introduction of this system in the army is a case in point. We lost at once the honour of belonging in a way to distinguished corps, our servants, our messes, our fair and equalised uniform, and in return we got literally nothing. How, then, could a system of such levelling downwards be popular? We all see that if in March, 1873, when the new system was introduced, if the medical department had been made, as it well deserved to be, into a Royal corps, that the opposition of the medical officers would have been much disarmed.

The whole of the staff doctors would have been raised upwards, and the regimental medical officers coming from many Royal corps, would have simply stepped from one Royal corps into another.

This, however, was not done, and it would be impossible to say how much this neglect, this want of consideration, this want of tact, has cost the English taxpayer, that final court of appeal to whom all must bow. The fact of the medical service being made a Royal corps would have rung through every village in England, for in every village in the land is dwelling some civil physician who watches with a sympathetic eye the pains, the toils, the defeats and the successes which we, his soldiering brothers, endure. It would have brought to our service a crowd of high-spirited, chivalrous, and gallant gentlemen, who would have won for us an honoured name, and brought to the bedside of the sick soldier all the sympathy and all the devotion which men full of *esprit de corps* can develop. But it was not to be, and we were pained beyond measure to see the system which we all saw was alone the pathway to success, rendered unpopular, not by its inherent condition, but by the complete absence of consideration by which it was introduced. To level downwards is ever painful, and with us it has been most intensely so. It would be absolutely impossible to picture in any way the positive suffering we have undergone in those ten most bitter years. What wonder that it has injured our *esprit de corps*, for how could so tender a flower survive so rude a storm?

One of the most serious causes of our suffering has been our complete absence of any mess establishments. It would be quite impossible for me to tell what an amount of suffering and break-down of personal self-respect this absence has caused, and there is no need now to chronicle our painful conditions in the last few years. We have been literally rendered homeless, and I could easily indite here stories of absolute suffering from this one cause that would at once show

reason why this most important branch of the public service has been unpopular.

There is, however, no need for that now, but it is clearly one's duty to say that if the question of our messes is not dealt with in a wide, liberal, and completely English spirit, no settlement of the question of the medical service can be arrived at. It is now absolutely essential that at the headquarters of every military district, and in every large garrison, a regular allowance for a medical officers' mess be granted, exactly as the allowance is granted to infantry and cavalry regiments.

With such an allowance, varying from £200 to £300 a year, for, say, ten large garrisons, it would be possible to silence the just and legitimate complaints of the medical officers, and it would in a short time give us a centre of life, of discipline, and of *esprit de corps* which would be of immense value to us all, and also to the sick soldier who is depending on our efficiency and our devotion to duty for kind treatment. To allow our young officers to grow up in the army without any bond of comradeship, or social friendliness, would be fatal to all efficiency. It is absolutely essential that we meet together and that we build up a high *esprit de corps*. This can never be done while we are scattered in lodgings in every garrison town, and whatever brings us together must do us much good.

The cost is absolutely as nothing, and we may safely say that if it is not done the absolute unpopularity of the medical service will prevent medical men from entering it, and in a few years again a new warrant will be given us, bribing us by heavier pay and heavier allowances to enter an unpopular service. Why not, then, listen to our prayer, and treat us exactly like any other regiment in garrison? The cost is quite trifling, the good to come of it must be great.

This proposal if carried out would also enable us to appeal with more force to the Minister of War against certain regiments which have made it a rule to refuse the honorary membership of their messes to various classes of officers simply as such in the army. Such a system of petty exclusiveness shall not exist in the army, and whether it be applied by European regiments in India to native corps, by cavalry to infantry, or by special regiments to other non-special regiments, the War Minister should be able to protect each and every officer of the army from being excluded from messes by special regulations. If an officer is commissioned by the Queen, he should have the *entree* as a right into any mess, and if he is refused he should have an appeal to a court of honour, and if not judged suitable should not remain in the army. If, however, the regimental mess is too close an institution, and cannot expand to receive any commissioned officer, then the War Minister should be able to withdraw from it all public money or grants, for it should not be possible for any body of officers to combine to exclude any other body of officers simply as such, and use as a means the allowances granted by the State. We are, I believe, only anxious to organise our own messes in the larger garrisons and to take part in all the social duties of the life we belong to, but to do so we need the same financial aid from the State as is given to every other corps. The fact of our drawing a somewhat higher allowance of coal is an absurd argument against our demands. Men do not live by coal alone, and if coal could

have made us happy we would long ago have been so. Let us now, after years of suffering, find a home in messes of our own. Efforts have been made in some garrisons by the medical officers themselves, at great self-sacrifice and much personal cost, to organise messes for the medical officers. It is absurd to say that we should not receive mess allowances, or to compare us in any way with other branches of the administrative staff of the army. In other departments the officers are, as a rule, older men, nearly always married, and few in number in a garrison. We, on the contrary, are a corps in which a great number of young officers enter direct from civil life, and being unmarried have need of a meeting place. It is quite possible that from a certain number of men there might be complaints at having to join a mess, but any one knowing army life must admit that a properly organised mess is a great aid to discipline and comradeship.

Garrison messes are spoken of as being in the immediate future. They may come or they may not, but what we certainly need are suitable meeting places and mess places in the great military centres.

The same remarks apply very much to medical libraries. We receive literally no aid from the State in supplying ourselves with professional books, which are in themselves very expensive, extremely unportable, and they should doubtless be provided for us in certain amount in the great military stations. A few hundred pounds so expended annually would repay the cost well in increased professional efficiency and the development of medical knowledge.

124. **Soldier servants.**—Among the various minor points which need to be settled in favour of the medical officers is the question of soldier servants. At present a medical officer while serving in a military hospital is compelled to employ a trained Army Hospital Corps soldier as a servant, and as the soldier is entitled to extra departmental pay the medical officer who employs him is forced to make good his departmental pay, as well as to pay him his ordinary servant's wages. This is very unfair, and, indeed, the whole question of employing trained Army Hospital Corps as servants is open to question. Everything seems to point to having a junior grade of Army Hospital Corps men in our army who would do all the fatigues and non-nursing work of a hospital, the same class to furnish officers' servants. The want of a servant is a very great injury to efficiency, and, in a hospital if a medical officer is not supplied with a servant of his own, there is the great danger that he may employ a nurse or efficient orderly to attend upon himself to the injury of the hospital efficiency. It might also be possible to have men from the Army Reserve employed as personal servants and grooms to officers, and borne as supernumeraries in the Army Hospital Corps during such service. The question is of importance, and needs to be dealt with in a fair spirit.

125. **The rank and pay of the Director-General.**—The great responsibilities of the officer who fills the arduous part of Director-General demand that his status and emoluments should be proportionate to his duties.

To-day this is far from being the case. While the whole of his corps have had their pay and rank placed on a better footing, the chief officer, on whom so much depends, and who every day becomes a more

important officer in the estimation of his department, remains poorly paid, and with army rank the same as the chief surgeon of Portsmouth garrison or Gibraltar. This is quite defenceless. The highest relative rank he can attain is that of Major-General, and even on retirement no step of honorary rank is granted.

Every one feels that the rank of the Director-General should be at least one grade higher than the officers he commands. Serving under his orders, and liable to his controlling power, are some dozen officers, all of equal grade with himself. This is quite irregular and unusual in military life, and the experiences of military life are pregnant with instruction for all of us. We do wrong to leave these army lines. We cannot gain much from a new departure. It is now absolutely possible for the Director-General to have to serve in the army junior in status and rank to one of his own junior officers, and this would occur if the Director-General was chosen from the junior Surgeon-Generals. He would rank only as a Major-General from the date of his commission as Surgeon-General, and would thus be junior to the senior Surgeon-Generals.

The Director-General should then on reaching this high post be raised to rank as Lieutenant-General, and be paid exactly on the same scale as the Adjutant-General of the army, and on his retirement from the service, if he has earned the approbation of his Sovereign, he should receive the rank of General in the army. Until the Director-General receives this rank of Lieutenant-General, it is said he would not be eligible for the G.C.B., and that decoration should certainly be within his reach. Every day renders the post of Director-General more important, and the tendency of the unification system is to give him more and more power. To meet these heavy demands upon him, higher pay and more suitable status should be his, and would have been long ago had the occupants of the office been at all self-seeking. The Surgeon-Generals should also on retirement be eligible for a step of honorary rank, as are all officers in the army who do good service.

But, at present, when an officer reaches the high grade of a Surgeon-General, he is deprived of any chance of getting an extra step on retirement, because a Surgeon-General has no higher departmental rank to obtain; but the way to meet the difficulty is to grant to the retiring officer the rank of Lieutenant-General, or a grade one step higher than his former grade of Major-General.

126. **Status of principal medical officer of a division; tenure of office; an Inspector-General of hospitals.**—Much uncertainty exists as to the exact status of the principal medical officer of a division or district with the general commanding that force. One general will treat the principal medical officer as his staff officer, another will not acknowledge that position in any way.

It is absolutely necessary to define the status so that neither general or principal medical officer can go astray on the point, and that there can be an appeal for fair treatment on both sides. It is universally admitted that in view of the confidential nature of the relations between the principal medical officer and his general, that the principal medical officer should be regularly recognized as the medical staff officer of the division, and have all the advantage of that status.

That on every occasion the place of the principal medical officer should be with the general's staff, and on all parade, ceremonial, or state occasions the same position should be recognised.

Constant complaints are made as to the exclusion of the principal medical officer, and with him of all representation of the medical service at ceremonies or official gatherings. One general will overwhelm the principal medical officer with attention, another will not recognise the position at all. We want definition and certainty for caprice and uncertainty. Thus in all inspection parades or ceremonies the place of the principal medical officer and his secretary should be as recognised as the place of the colonels commanding the artillery or engineers is recognised, and if that is done no complaint can arise.

We have all seen the very greatest heartburnings and complaints developed by this very petty question.

In fact many of these grievances are great because they are so small, that is to say, the remedy is so easy, so just, and so readily applied that the grievance seems all the greater that it is not removed.

These questions must be dealt with, if not they give rise to an amount of ill feeling and petty jealousy which is very injurious to efficiency and which injures our *morale* very much. Of the need of a secretary or staff officer of a principal medical officer of a division there is abundant evidence, and we have dealt with the point separately.

The tenure of office of a Deputy Surgeon-General should be limited in nature, and the five years' rule applied to this as to all army staff appointments, with the power in the hands of the authorities of continuing the appointment for a second term.

This rule would quicken the whole inner departmental life, and would give the authorities power to remove without offence any unsuitable men. To-day owing to the fixity of tenure which the principal medical officers now have, there is no stimulus to active work. Human nature is weak and needs stimulus. That stimulus in civil life comes from the struggle to exist, in organized institutions it comes from the power of chiefs and seniors to promote or select. If it is needed in the army generally it is also needed to its full extent with us.

Following up the same line, we have great need of a distinct and separate Inspector-General of hospitals who would constantly be on the move, inspecting the district working, and reporting to the Director-General or the War Secretary on the efficiency of the hospitals and their staff. No such officer as a special appointment exists, and in consequence it must be difficult for the authorities to receive special reports on the district working, as the reports now received come from the responsible officers and not from supervising chiefs.

Such an officer would be an immense aid to efficiency, and he could be developed by removing the Surgeon-General of the Portsmouth division and relieving him by the Deputy Surgeon-General at Aldershot.

By this means no extra expense would be incurred, and none have ever denied that it would be a real advantage in our efforts at efficiency.

127.—**Secretaries or staff officers to principal medical officers.**—When people wonder why unification has not worked perfectly in all our campaigns since 1873 they would have little difficulty in finding out the reason why if they studied the question. The truth is medical unification has never yet had the chance of succeeding. It has been hopelessly handicapped by want of essentials in carrying it out. Take, for example, the subject we are now referring to, that is, the need of a secretary or staff officer for principal medical officers of divisions in war and districts in peace. A division in our small army will always be an important unit of force, and the duties connected with its administration considerable.

We find that the military officer commanding it has a large staff assisting him, and every head of department under him has a staff officer to assist him in the duties of his position. Thus, the officer commanding the artillery of a division has an adjutant acting as secretary and assistant. The commanding engineer has a staff officer, and so on. But when we come to the principal medical officer of the division we find he is quite alone, single-handed, overburdened with petty detail, quite devoid of efficient clerical assistance, and thoroughly handicapped in consequence.

I could fill pages with stories collected in field service of the positive injury done to our efficiency by this extraordinary and really inexplicable state of affairs. A school of critics are perpetually telling us to be professional, yet they send a chief physician of a division into the field, and his whole time is spent in totalling up statistics, signing ration documents, and carrying out petty, unimportant, and absolutely routine detail. Sydney Herbert could never understand why our chief surgeons in the army were so much statistical compilers, and so little physicians and surgeons; but the fact is that unless you give this chief physician a responsible secretary or staff officer, qualified to do the detail work, and to fill up the voids often found in a single man, the chief physician will have to do the work of detail himself. We see the same thing exactly in peace in the districts. A principal medical officer who might be the consulting physician or surgeon of a large district is really tied down to purely clerical detail work, and as a consequence professional efficiency suffers. Again, it is an immense training to a young officer to act as secretary, and it trains him as an adjutant is trained for important work as he grows more senior. Such training we never receive. Our chiefs alone in the army work single-handed or assisted by sergeants as clerks, and the result is not good. In the field we have over and over again seen the evils caused by this system. One rides in from a distant camp to ask advice of the principal medical officer. He may be away on some duty, and who is in his office? some dull and heavy sergeant, who is of course unable to give any advice or to explain the wishes of the principal medical officer. How different if one found there, as one would in every other office, an intelligent and responsible officer in the confidence of his chief, knowing his desires, able to advise with him, and to assist him in various duties. Again, a secretary being a younger officer, it is far easier to influence him, to explain defects in some scheme, or suggest remedies. This one cannot do to a senior officer without imminent risk of friction.

But a secretary can often influence his chief and lay before him other sides of the question. No officer commanding a regiment is asked to work without an adjutant, and we in our divisional grouping are really a regiment, and need exactly the same staff.

Also it must be stated that it is highly unfair and unjust on us to have no officer dealing with our correspondence and our confidential letters. I have seen letters which in any other corps would be carefully dealt with by a trusted officer, and never allowed into the hands of a sergeant, allowed by principal medical officers to be copied and sent about by mere clerks, who no doubt would circulate the whole contents to their friends at the sergeants' mess at any opportunity.

We need to have with each principal medical officer of a district an officer as personal assistant or secretary or staff officer, and in this demand I have found every officer to agree.

It is absolutely essential, and without it the edifice of unification cannot be built up. One appeals with confidence to the entire army on this point. Every one agrees with the idea, and wonders why it is not put in force.

128. **Staff surgeons in garrisons. Medical attendance on officers, women and children.**—Few persons will deny but that by the system of garrison hospitals the general average of treatment received by the sick soldier has been raised from a professional point of view. The collection of medical officers in one place for the treatment of the sick has developed a higher professional average than was likely in the old days when little battery or detached regimental hospitals existed. At any rate it is possible by the appointment of efficient chief surgeons to the hospitals to ensure the work being thoroughly done, and in patients collected in a hospital very easy inspection by directing medical officers is possible.

In a hospital it is actually possible to ensure efficient discharge of duties, it is quite the reverse outside its walls. The treatment of sick officers, their families, women and children, will always be a most responsible post in our medical service, and will always be a heavier and more trying task, if the duty be properly done, than the attendance of sick in a hospital where nursing is easy and trained assistance ready to hand. Considerable complaints have been made since the introduction of unification on this head that the officers have not been well attended to, owing mainly to the change of medical officers. It must be remembered that the duty is not a popular one, and is often very wearying and exhausting, and as the pay is the same for hospital duty as for outside duty, there will ever be a tendency to avoid the outside work and claim hospital duties. The way to meet this is absolutely easy. It is essential for the treatment of sick officers to have the post of garrison staff surgeon appointed exactly as in the Indian garrisons. Such a specially chosen officer of high professional attainments, and desirous to do such work can easily be found, but it is necessary to secure him in his appointment for three or five years, and grant him a special extra pay and forage allowance while doing the work. I venture to think that in a few months such an officer of known professional attainments, and we can produce many such, would soon gather to himself the confidence of the sick officers of any garrison he was posted to. But the labourer is worthy of his hire, and he should be so paid by extra forage allowance and a good house, that to remove him from his post would be a real punishment.

To remove a man to-day from the charge of sick officers, women and children is absolutely a boon, as the work is heavy, and the pay actually the same as if at hospital duty. This system is working in India, and the post is eagerly sought for, and commands the best men in every garrison. Besides it stops the complaints of some army doctors, who say that little is done to develop professional efficiency. This system would sort out, as it were, the devoted professional officers, and give them, at small cost, a post where devoted work might be done.

Such an officer, occupying a special house and not changing from year to year, would soon be known to all, and it would be far better for the officers of the army to claim the appointment of such special men than to ask for a chance medical officer per corps, who might or might not be efficient, and whose youth and inexperience would fail to satisfy the demands of his patients.

129. **Netley as our chief centre. Its professorships.**—The whole tendency of unification is to weld the army medical service into a compact corps full of devotion to duty, and so jealous of its good name as to crush out by its own inherent force all inefficiency or neglect of the high duties to humanity the service is called on to perform.

Netley, however questionable its situation may be, is at present our chief centre, and it is absolutely important that there at a great hospital and not in a military camp our young soldiers of the Hospital Corps should begin their service.

The hospital training is so thoroughly essential that it is the very *raison d'etre* of the Hospital Corps. In the same way the training of the young medical officers should be made complete at Netley, and should advance regularly from the first day of joining the hospital there until the course of instruction is complete. This would lengthen the course at Netley from four to six months, but two months of that time would be taken up by ambulance and corps drill, which is absolutely essential to be studied by every army surgeon.

There is great need there of regular teaching in hospital administration and organization, for army medical officers are essentially hospital administrators as well as physicians and surgeons. Netley should be made more than ever a regular military school where military discipline would be taught systematically by lecture and routine. This is very essential. Riding would also be taught there, as it now is at Aldershot.

The most important point about Netley we leave to the last—that is, the appointment of the professors there. The existing professors have done for us a great work, and have given a distinct impress to the whole medical service. We can never forget what we owe to the Netley teaching.

For the purpose of stimulating the professional life of the Medical Corps it is advisable to throw open the professorships at Netley to the department, and to place them exactly on the footing of Woolwich and Sandhurst, being held for seven years at a time, and the professors

then reverting to military duty. So long as the appointments are half pay or retired appointments the average medical officer will look upon them as beyond his reach, and may fail to work for such a post. They should be open to the department in the fullest way, that is, an officer of any seniority should be eligible for them. This system would stimulate the whole corps, and the reversion of such professors to military duty would leaven the whole department with highly efficient professional men. It would also silence the complaints of the medical officers that no stimulus was given to professional efficiency. A professional paper for the department is also needed, and no doubt Netley should be its centre and home. Such a journal is much wanted to circulate the special knowledge of military hospital practice and routine through the department. The withdrawal of the medical blue books from the medical officers was a short-sighted policy, and now their place can be taken by the journal proposed. It should be a journal issued like the professional papers of the Royal Artillery and Royal Engineers. The State would pay the secretary who would edit them exactly as the State pays the part salary of the Engineer and Artillery secretaries. The medical officers by their subscriptions annually would pay the greater portion of the expense.

Any expenditure in this direction by the State is not lost; it well repays itself, and no Parliament would object to such an item in the estimates.

130. **The Guards' medical appointments and a metropolitan hospital.**—One great want which we all complain of is the absence of any large metropolitan military hospital where army medical officers, returning from foreign service might do duty if so selected, and at the same time have the advantage of keeping touch of the civil medical schools. We are very much handicapped in our medical proficiency by our long foreign services in remote garrisons all over the world, where new ideas and new views of physic with difficulty penetrate. With such a metropolitan military hospital as we refer to here, much of this difficulty might be met; and there is room for a large military hospital for the Guards and other troops quartered in and about London. Chelsea hospital could no doubt be modified for such a purpose, and the whole of the military sick of London might be concentrated there. Room could also be found in that spacious hospital for accommodation for sick officers from abroad or from different parts of England, who might desire to have the advice of special doctors. The want of accommodation for sick officers is always noticed in our garrisons, and should be rectified. To provide a staff for this great London hospital the medical appointment of the guards should be given for three or five years at a time to specially chosen officers of the medical service, as a reward for good service done, nominating, if needed, a special staff surgeon or two to look after the sick officers of the troops in London. In this way the guards' appointments instead of being as now merely appointments given to men with interest, would become rewards for men who had served England well, and borne in distant lands the burden and toil of the day. This number of appointments would be a great stimulus to us all, and the expense to the country would be *nil* as the existing incumbents would be gradually replaced by the new men. Into this great metropolitan hospital any accidents happening in the neighbourhood to civilians might be treated.

131. **The Netley band.**—The story of the Netley band is in itself full of instruction for all as showing the disabilities the medical officers of the army endure.

Some years ago it was felt that at Netley, the great head-quarters of our corps, and also a vast hospital full of ailing men, a military band would be a great pleasure to all, and to none more than to the many convalescents who wander through its grounds. We accordingly subscribed as a department to such an organisation. However, on referring the idea to the military authorities, they, it is said, decided that if we paid for the band the military commandant at Netley, an officer who has no connection whatever with the medical corps, should command it, and that it should play only at his pleasure.

We consequently withdrew from the idea, and the money subscribed was given to various corps charities, and the sick and convalescents wander through Netley grounds without music, because we who were willing to pay would not be allowed to direct. The loser was, as usual, the sick soldier; but it is now possible to make up for the past, and let us have a band at Netley. The cost will be trifling and the boon considerable.

132. **The detail and strength of an English Field Hospital.**—The unit of our new organization in the medical service is a field hospital. It is intended for 200 sick soldiers, and should have a staff suitable for this amount. At present it is lamentably below the proper strength needed for such a duty. The staff of nurses and subordinates is thirty-seven in number. Of this fifteen are stewards, cooks, storekeepers, clerks, and compounders, leaving twenty-two for nursing duties.

This gives one nursing orderly for every nine sick men. It is quite insufficient for war. In the naval hospitals one nurse per seven sick is given, and in a war hospital one nurse for five is needed. The strength of the whole should be increased, then, from twenty-two nurses to forty nurses, to enable justice to be done. But there is no messenger to go with letters, no means of communicating with officials, as must be done in war or peace. There are neither watermen nor washermen, nor are there any sanitary police. This causes excessive overwork.

We need, then, a very large proportion of non-nursing staff added to a hospital for war service. At present the 200-bed field hospital breaks up into two half hospitals, but by adding one water cart and one medicine cart more it would break up into four sections for fifty each, a most useful unit for war or peace. Each of these four sections should be complete in its detail, and would need one wardmaster as chief nurse and overseer. Thus:

1 wardmaster.
1 storekeeper.
1 compounder.
1 clerk.
10 nurses, 1 per 5 sick.
2 cooks.
2 washermen.
2 watermen.
2 pioneers or sanitary police.
1 messenger.

23 total for 50 sick.

This multiplied by 4 for each section would give 92 men for a 200-bed hospital, and a sergeant-major and quartermaster-sergeant would be also needed. This is what is needed for good work, and this is what we should ask for. If England refuses it, well and good, we must do the best we can without, but we should ask freely for help, and thus avoid the risk of break-down. It may be possible to cut off a man or two, and to compel men to do double duty. In the long run it does not pay, and it is better to be liberal and just and avoid the chance of complaints as to the comfort of the sick in the field of which we hear, and which must occur if men are overworked. At present there are four equipment waggons and four general service waggons with each field hospital, but only two water carts and two medicine carts, but by adding two water carts and two medicine carts we could break up into four sections instead of two, as at present. If a field hospital cannot break up it is well nigh useless, and by dividing it into four sections we favour very much its subdivision.

The transport for these waggons should belong to the medical corps, and it is to be remembered that no provision whatever is made in our army for transport for sick if a hospital marches. This needs to be remedied, and a certain proportion of ambulance waggons are needed with each field hospital, quite apart from the bearer companies. It is essential that we have a field hospital with the above, *personnel* and *materiel*, at Aldershot, kept ready so that we and all the army may know what it is; and at autumn manœuvres, if we cannot mobilise a whole field hospital, we ought to mobilise a section with each division, and thus prepare in peace for war. We should be able in many small garrisons to mobilise a section hospital for fifty beds, and it would be better to hire the transport once a year, and let us see the hospital at work than to keep us quite ignorant of it until war breaks out.

133. **The number of bearer companies with an army corps.**—One of the most valuable boons ever given to the soldier in war was the institution of the Bearer Company, a definite army unit trained to the systematic removal of the wounded from the battle field. It is a vast pity that it has not been more studied by military leaders, as it is an immense aid to the *morale* of the soldier. As far as I have seen, few military officers of the army have taken the trouble to study it, and certainly the drill and organization needed for its proper working has been the subject of rather absurd criticism by men who never troubled themselves to find out what it meant. It is an immense blessing for

the rank and file of the army, those who in every campaign suffer most by war injuries and diseases. For it cannot be too often repeated that the whole question of the efficiency of the medical service is essentially a question for the rank and file of the army. They are compelled to trust to our efficiency, and it is on them the whole weight of our inefficiency falls in peace as in war. They cannot command private medical advice, they have no comfortable quarters to remain in if ill, and they and their wives and children are entirely at the mercy of our good or bad service. For the officer private advice can easily be obtained, leave is easily granted, his private servant can attend him, and in war his position attracts sympathy, and he can often secure abundant attention. It is entirely of importance that the private soldier should be valuable in our eyes as the measure of his comfort is the measure of our efficiency.

At present four Bearer Companies are allowed to an English army corps, viz. one per division, and one for the corps details. These companies are only allowed ten ambulance waggons, carrying in all sixty patients, or a total of 240 for an army corps. Of course each company is allowed twenty-three other waggons, which, it is said, may be obtained "*locally*," but we know too well what this means. It means *not obtaining* them. It seems very unreasonable that while special waggons are provided to carry soldier's baggage, that the soldier himself, if wounded, may be carried in any cart found available. This is quite wrong, and hopelessly out of date, from a humanitarian point of view. Let the "chance cart" go to the military authorities to carry stores, we need the regular ambulance cart with proper appliances. Anything less it would be absurd to take, and it shows how behind the age such ideas are, that a sick convoy, which is probably one of the saddest sights this world has ever seen, should be made sadder still by the unfortunate victims being jolted in chance carts, while shot and shell and food for the soldier have special provision and regular carts made for them. We need, then, to have the twenty-three waggons of the second line of the Bearer Company provided from regular ambulance waggons. We need also that to every military unit an ambulance waggon be added to carry sick to and from hospital, this would entail the addition of an ambulance waggon to each battalion of infantry and regiment of cavalry and company of engineers. It should form part of the regimental transport on mobilization.

But we come now to a far more serious want. Four bearer companies are in themselves a very small amount of help for an army corps, and it is probable that we shall find that a fifth and sixth company will be needed for the front line of the army corps, quite apart from the service of the line of communications. There is absolutely an enormous dearth of sick carriage in all our army schemes.

The four, or as we say above, six bearer companies would be fully employed in the transport of wounded in the front, and there is not a single cart or waggon provided for the evacuation of the wounded to the base. The field hospitals along the line of communication have literally no transport whatever provided for their evacuation.

This is a most serious matter and would in any campaign lead to immense suffering and just outburst of public feeling. We need to

have under the general and the surgeon general of the line of communication, two or more complete Bearer Companies with waggons for removing sick and wounded to the base, and the *personnel* of a third company without waggons for the purpose of manning the ambulance trains on the railways which must occupy an important position in future wars. At present there is no provision for any such men, and a strong company is needed for the work. If it is not provided where are the attendants to come from, not from the regiments, not from the hospitals, already few, not from the few Bearer Companies, and they will thus be absent if not provided for. If war is to be made all these provisions are needed, and if we can prevent war being made so much the better. In all the old wars the officers, few in number, had their wants provided for either by their own means or by the generals in command, but now we measure medical efficiency by the medical aid that reaches that last footsore private soldier painfully toiling in the rear of the column.

The medical assistance that reaches him is the measure of our efficient arrangements.

We need then to have at Aldershot in peace a well organised and complete Bearer Company as a pattern, and a training school for us all. That company should when war breaks out break up into sections to be the centres of other companies, and to rally the reserve men to efficient work.

We can obtain for these companies good men by carrying out with regularity the training of the regimental bearers in peace time. These men on being recalled from the reserve will do well for the Bearer Companies. With these companies all the medical officers and many sergeants would be mounted to enable them to be quick and prompt in giving aid to the wounded, and on the march to keep the convoy together and to supervise its discipline.

If there be a place where the flood of human misery rises high it is in a convoy of sick and wounded men being dragged by poor carts over bad roads in the trying weather of winter.

There is no doubt also the need of a certain amount of ambulance waggons with each field hospital for the conveyance of sick to and from the hospital, and the removal of the patients if the hospital marches.

134. **The materiel of the medical service.**—Much reform is needed in our *materiel* to make it more generally useful under the varied demands of an English army. We must not copy blindly German or Continental equipment, but must choose some unit that will do also for Affghanistan, Ashantee, Zululand, or Egypt. Measured by this standard, the mule pannier is the ideal unit for a load. It will pack easily into a large waggon or a small waggon according to number.

It will ride on a mule in pairs, or be carried singly by two native carriers. We seem to need to have all our *materiel* packed in peace in such boxes. Our elaborate pharmacy waggons, however useful in France or Germany, are of no value in Affghanistan or Ashantee; we need a general service unit, and the mule pannier seems that unit. We can then utilise any waggon or any pack animal or human agency for carriage. We need also compressed drugs, made up like cartridges, and a large formulary of dry, compressed globules for medical work.

We should utilise all modern improvements in thus equipping our hospitals, and supply all our bearers with the means of helping the wounded. Every unit needs the medicine panniers, and it would be better to give a field companion to every company than to let there be any complaints as to want of drugs. "Decentralize" should be our motto. To deal with all these questions of *materiel* there should be a regularly appointed "Medical Equipment Standing Committee," nominated like the ordnance committee or the engineer committee, and reporting at intervals on improvements needed.

The equipments for each field hospital should be kept not in a central arsenal but at each large military centre, ready to embark with the men for the field.

135. **Medical transport in the field.**—It is quite lost time even thinking about medical war organization unless the subject of transport is thoroughly gone into and settled on a defined basis. All our ills in every campaign are to be laid in a great measure on the want of this most essential element of success. We need, above all things, a definite fixed proportion of medical transport, wholly our own, and serving under the orders of the chief surgeon of the army. It would be easy to fill pages with stories of the sufferings to the sick the want of this element in our armies has caused. We need now to have a regular medical transport branch of the Army Hospital Corps, enlisted on the same lines, wearing the same uniform, and forming the nucleus in peace of a large reserve for war. It is from the reserves we must expect our greatest help in this essential element.

No field hospital or bearer company should leave England without its transport with it, so that on landing in the enemy's country it may at once begin work. The field hospital at Aldershot and the bearer company there should be fully horsed and equipped, and from it men should pass rapidly into the reserve, ready to be recalled in war time for medical transport duties. In the same way all the ambulances in each district should be driven in peace by medical transport men, who would at a war mobilization concentrate at the headquarters of a district and thus equip the district hospital with transport, aided of course by the reserve men coming in, and by an inscription of horses, which is easily arranged for in peace.

This would provide for the transport needed for the field hospitals, but a like work is needed for the many bearer companies needed for the convoys and removal of wounded.

These would also need their own transport, supplemented by the general and local transport service of the army. It might also be possible for the State by a retaining fee to utilise the drivers of the civil ambulance waggons now so often used in municipalities. What is needed is small peace establishments and reserves ready for the field if needed. The horses needed for transport of wounded need not be highly trained, and even the drivers could come direct from civil employ without much extra training.

Discipline, of course, is needed, but in the field discipline is more easily maintained than in the idle times of peace.

136. **The localization of field hospitals in districts.** — Great advantages would, it is very certain, accrue to our medical corps, if the

system of localization was applied to it. The recent lesson of our Egyptian campaign and the mobilization on a small scale it rendered necessary should not be lost.

We saw all the field hospital staffs concentrated at Aldershot, and there detailed into units. Such a system would be impossible in any great war. Centralization is ever a bad thing, and decentralization wherever possible should be encouraged.

It is quite possible, and even of enormous advantage in the present case. Let us take Woolwich as an example. From Woolwich garrison during the Egyptian campaign there went away to the field many medical officers and many of the Army Hospital Corps. But they were all sent to Aldershot, and there mixed up in various units. Such a system is injurious to efficiency, kills rivalry, and reduces *esprit de corps* to a low ebb. There is need of a generous rivalry between field hospitals in efficiency, and the way to secure it is to keep each hospital as much as possible together in peace and in war. Thus it was quite possible to have mobilized No. 1 field hospital at Woolwich, and to have let it sail for the seat of war complete as a unit from Woolwich. The officers would have known each other, and the men would have known the officers, and the people of Woolwich would have followed the fortunes of the hospital with some interest, and a rivalry would have existed between the No. 1 hospital from Woolwich and No. 2, say from Aldershot or Dover. The *personnel* would be linked together by service in peace, and the *materiel* would be found not grouped at the central arsenal, but decentralized in the headquarters of each military district. If mobilizing eight or ten hospitals caused hard work at Aldershot, think what the labour would have been had we sent out fifty hospitals, yet two army corps need such an equipment.

While Aldershot was overworked the local districts were quite idle, and this is ever the result of centralization.

It is now quite possible to elaborate a scheme by which each district will be able to produce its own field hospital and its own quota towards the bearer companies, and to do it in peace for war. To achieve this it is necessary to group the medical corps into units of field hospitals and also into a district staff. The latter would consist of men and officers returned from foreign service, and not on the roster for immediate duty abroad. Gradually, as the months went round, the field hospital officers and men would go abroad and their places in the hospital could be taken by the district staff, who could again be replaced by the men arriving from foreign service. But at every moment the field hospital as a unit would be ready, and the reserve men of the district would join at the district centre, and not at Aldershot. Also the volunteer body of the district would be far more likely to join a local hospital embarking from the district centre than they would be if they had to go to Aldershot, and there be posted to any chance hospital. Once the hospitals had embarked the duty of keeping them up to their strength would fall on the depôt and not on the district centres.

On this system Woolwich, Dover, Portsmouth, Netley, Aldershot, Plymouth, Colchester, York, Edinburgh, Dublin, Belfast, Curragh, and Cork, would each be able to mobilize one or two hospitals, and the labour of preparing for war be minimized so much so that the Director-

General would merely have to ring his bell at Whitehall Yard and say "Mobilize" to find it done.

For small wars the establishment at Aldershot of a movable field hospital would be the means of preparing easily. It is essential to keep a mobile field hospital there, and this would be ready for any campaign, and could easily break up into four units, which by simple methods could be increased to four hospitals, in themselves enough for a tiny war.

Following up this system the volunteer army should have in each county a complete bearer company and a field hospital of the volunteer branch of the medical corps, and it is quite certain that in war time trained men would come as volunteers for a campaign and join the regular field hospitals, and be a source of immense help there. All this is not only possible but absolutely easy.

137. **The internal organization of the Army Hospital Corps.**—We may say, in the very first place, that the Army Hospital Corps should be the most intelligent, the most sober, and the most devoted corps in the whole army. Its *esprit de corps* should be of the highest, and only the most trusted men should remain in it. Its discipline should be admirable as its trusts are enormous. It has for some years gone through trying changes, and should now settle down finally as the Royal Medical Corps, an integral part of, and wholly bound up with the officers of the medical service as a portion of the same corps. The dress, title, badges, mottos, should be exactly the same for both officers and men of the medical service.

We may tabulate various points needing to be dealt with:

(A.) The enlistment to go on as at present by direct entry from civil life, and volunteering from the rank and file of the regular army. It would be a great pity to shut out the many very excellent recruits who now enter from civil life. Some officers imagine that volunteers from regiments are all perfection, but it is quite a question if we would not lose very many superior men if we stopped direct enlistment. As the pay is raised and the title of the corps changed to a Royal corps it will command many excellent recruits in the open market. Dismissal from the corps should be made easy for men who are drunkards, and the Royal Irish Constabulary should be the model we desire to copy, where expulsion would be the most severe punishment.

(B.) We should ask for the highest pay given to any average soldier. The gunner of the Royal Horse Artillery receives 1s. 4d. per diem, and gets working pay if so employed. The pay of the hospital corps man might be made the same.

While undergoing instruction as a recruit he need not receive any extra pay, but simply the pay of his private rank.

There are also many places in a hospital where the man need receive no extra pay beyond the pay of his rank. Notably, if employed as an officer's servant, where the pay given by the officer is enough to compensate the man.

There is need of a grade on ordinary rank pay from which to promote good men, and to which to lower inefficients before expulsion from the corps.

(C.) That the corps be divided into units of field hospitals and bearer companies, and be allotted to military districts by regular numbers, that a district staff be also formed of men not on the roster for field service separate from the field hospital unit. By this decentralization the men would be kept more together, and more rivalry and *esprit de corps* developed. That to each unit of a field hospital a regular staff be told off of sergeant majors, &c., &c.

(D.) The post of sergeant major to be no longer that of steward, but to be chief wardmaster, and the steward's or storekeeper's work to be given to a quartermaster sergeant of the corps. The post of sergeant major is now a very good one, and many such men are needed. It is a capital reward for a good public servant.

(E.) The rank of quartermaster sergeant to be formed, and such an official to be posted to each unit as storekeeper under the sergeant major. One at least is needed for each field hospital and bearer company, or fully thirty five for the corps.

(F.) A class of medical clerks to be formed in the corps like the Engineer clerks, so as to enable a man to rise in his own grade to proper pay and status, and yet not interfere with the nursing duties. These men to provide all the offices, like London, and the district offices with clerks.

(G.) That the extra working pay of the nursing orderlies be higher than any pay given to barbers, gardeners, or washermen, and that a distinct class of nurses with good rank and pay equal to the Class A and Class B of the Royal Engineers be established.

That it be possible to remove a man from this class for any nursing neglect, and allow him to revert to his ordinary duty as a fatigue man about the hospital.

(H.) That the corps be so increased as to embrace all military police, guards, and fatigues about a hospital, nd that good men out of these classes be promoted to the nursing duties, and sent back from the nursing duties if inefficient. The cost to the State is no greater if men are sent every day to form a hospital guard, or do police work at a hospital, whether the men come from the hospital corps or from another regiment, it is merely a transfer of the vote from one establishment to another. It would give us a chance of picking out good men, while now we must use all our little corps as nurses.

(J.) That annual prizes for good nursing be given, and a special badge to be worn by the prize winner.

(K.) That the depôt of the corps be removed to Netley, but that at Aldershot a fully equipped field hospital and fully equipped bearer company be kept ready in peace for war, to train all the corps to field duties.

(L.) That sergeant majors of the corps be eligible for the working pay given to sergeant majors of the Royal Engineers and Commissariat Corps.

(M.) That the pay of the quartermasters be made equal in every way to the pay of Engineer quartermasters.

(N.) That a band allowance be allowed for the corps at Netley.

(O.) That a body of drivers like the drivers of the Royal Engineer troops be formed, and that to each hospital in the field a transport

officer, chosen from the hospital corps, be appointed. It would be a good post for a quartermaster of the Army Hospital Corps.

(P.) That a proportion of sergeants in the bearer companies and field hospitals be mounted men.

(Q.) That a regular course of instruction in compounding be given at Netley or Woolwich, and facilities given to acquire the art.

(R.) That it be considered whether a large increase of warrant officers would not be more useful to the corps than the present number of commissioned officers.

(S.) Special pay is needed for nurses attending on infectious cases, and men falling ill while so employed should not lose their pay while sick, and if they die their widows should be treated as if their husbands perished in the field. Epidemics are our battle fields.

138. **Our relations to the Commissariat Department.**—We must always depend very much for our supplies on the efficiency of the general army commissariat. Many people think we should have a commissariat of our own in the shape of a revived purveyor's department. There seems to be no occasion for such a department, in fact it is a mistake having too many separate departments in the service.

What is needed seems to be that there should be a distinct section of the existing army commissariat told off for the victualling and supply of army hospitals in the field when war breaks out. Such a section, trained to general work in peace, would probably work better in war than a small department such as the purveyor's department would be. Every Surgeon-General of an army corps should have a paymaster and a commissariat officer attached to his staff for their special departmental duties. Every field hospital should carry with it in commissariat waggons so many days' supplies still under commissariat charge, and a distinct section of the commissariat corps should be told off to ration the hospitals of a division or army corps, and should carry say one week's supplies for the hospitals with them.

Our commissariat arrangements will always be very important, and the chief surgeon of a division should have power to expend money to a certain amount to buy extras. So far as I have seen, the difference between comfort and discomfort in a field hospital is an affair of a few pounds, and no amount of foresight will make up for the actual demands of war. Money is the great provider, and certain limited power should be given to chief surgeons to expend such sums. An agent of the various Red Cross societies should also have a recognised place on the staff of the Surgeon-General, and his funds would then be available to increase the comfort of the sick. A regular paymaster attached to the chief surgeon would act as accountant for all such sums. We all feel that the nation means her sick soldiers to be cared for in the most thorough manner. It is our absolute duty to speak out boldly and say what we want. England would willingly pay tens of thousands of pounds more for a campaign rather than let one sick soldier in the army suffer an unnecessary hardship.

If every officer of our department will only grasp this one fact, he will not fail to speak out his demands with boldness.

139. **The Volunteer Medical Service and volunteer nurses.**—We have failed in a great measure to utilize the volunteer medical service

as it might have been used. We have at present no volunteer hospital corps nor any non-regimental volunteer medical officers. We need both.

We need to have a regularly commissioned body of volunteer surgeons, of the volunteer medical corps, grouped with ourselves in the Army List, wearing uniform very similar to our own, and trained to do our work in the army home hospitals in war time. We also need a large force, 5000 men at least of a volunteer medical corps, on the lines of the Army Hospital Corps, organized in field hospitals, and bearer companies in each regimental district or English county. Such men, trained in peace, would, it is quite certain, give many volunteers for war, and would do much to strengthen our bearer companies and field hospitals in a campaign. Why they have not yet been organized it is difficult to say, but it tends to show how unimportant medical matters have been considered in our army.

This system would afford to the civil medical profession an opportunity of organizing field hospitals and bearer companies, which would be of enormous use to the volunteer force of England in war time, and without which all claims that the volunteer force is ready for the field are quite in vain. These bearer companies, &c., should be under the command of the district principal medical officer, in the same way that volunteer corps are under the general officer of the district, and it should be easy to parade these with our own hospital corps for practice with ambulance work. Much good would accrue to both by such a system. In exactly a similar way it should be possible to organize a regular body of female volunteer army nurses who, after undergoing a certain training and passing a defined examination, would have their names inscribed in readiness for any great campaign, and who would work with us in the cause of humanity with trained skill.

We find nowadays that at each campaign there is a rush of unqualified volunteers to help. We need to systematize this enthusiasm, and to train people in peace for war, and let them come to us useful and not as encumbrances. A certain amount of female nursing is so essential in our great war hospitals, and is so absolutely necessary in peace, that we should hail any system which would organize it more perfectly. The great lessons in nursing taught by the Scutari Hospital must never be forgotten, and we can learn from its history how much may be done by a woman to systematize and regulate the system in a hospital so great as Scutari was.

The lessons taught by Florence Nightingale, that grand woman, who in those corridors made a name which will never be forgotten while the English race exists, have sunk deep into all our hearts, and her ideas, which once seemed ahead of practical utility, are now received as household words.

Her ideas as to nursing have conquered, her work has been accomplished, and to-day we accept as necessary all the views she fought so hard to spread about the world.

Good nursing has become most essential, and we see more and more how useless without that aid is all the work of the physician or the surgeon. To render our nursing efficient must be one of our highest aims, and training and system, combined with self-sacrifice, will, as far

as nursing is concerned, render our hospitals the absolute homes of the sick and wounded soldier.

140. **The uses of Aldershot. An organized field hospital and bearer company.**—We want at Aldershot, not the depôt of the Army Hospital Corps, for in a camp like Aldershot the surroundings are not what the young recruit needs, but a regularly equipped and complete field hospital, with its waggons, equipment, *personnel* and transport complete, absolutely ready to take the field. The want of such a hospital that we might all see at work, and that the army might understand, is intensely felt. We are the only corps in the army who are forced to imagine our field unit a field hospital, from a few paragraphs in the medical regulations. We want to see one actually in existence, and measure its efficiency in peace for war. The army would then see practically before their eyes the one dream of the unificationists realised, viz. an actual efficient field hospital for the sick soldier, ready and complete in every detail.

This once seen and understood would do more to banish any thoughts of regimental hospitals out of their minds than all the talking possible. Such an organization we need most intensely, and its cost, however great, will willingly be paid for by the nation, if we only tell England that without it we are absolutely handicapped in our aims at efficiency, and that if it is not given us we are certain to fail in our humane duties in the next campaign. No money is spared to build 80 ton guns, and to try experiments with torpedoes, let us have a share of the public money to render ourselves efficient for saving life. In the very same way at Aldershot a bearer company is needed, complete in all details, to work every summer with the troops in the camp, and to show them what we meant when we left our regiments. We meant it for their good and for our own, and if we can show them a field hospital and a bearer company at work we will conquer much opposition.

This bearer company would in a war break up into sections, and these sections would be expanded by reserve men to the strength of a full company, and thus the central trained *nucleus* would leaven the whole mass of reserve men. It may seem costly to demand these two things, but if England means her soldiers to be cared for she must pay for it, and England will never refuse her money if only the reason why it is demanded from her is explained.

To this bearer company and field hospital the medical volunteers of England would be allowed to go for training in the summer, and thus they would take back to their counties good ideas to what their local companies needed.

141 **Difficulties of our position as sanitary officers.**—Many of us must have found a difficulty in making civilian physicians and the civil public generally understand why it is we have had friction with the controlling officers of the army, and why our whole life in the army has not been altogether a beautiful dream. To understand the question it is necessary to remember that the medical service until 1858 was practically a curative service, and not as it is to-day and has been since 1858, a preventive sanitary, as well as medical service. Before the Crimean campaign, and indeed for a century past, numbers of the leading army

physicians preached the now received doctrines of hygiene and preventive medicine, but their voices were simply like voices in the wilderness. No man cared to listen, much less to put their teachings into practice. The more one reads of their writings, one finds that there were great men before Agamemnon, and that Edmund Parkes, glorious teacher that he was, merely represented one of a long line of army sanitarians who had been for one hundred years endeavouring to teach the world.

The disasters of the Crimean campaign first let the light of public opinion into the curtained chambers of the military edifice, and ignorant as the public then were of purely military questions, they tried their hands first at sanitary military reform. Edmund Parkes came to the front, and if ever a name survives in the history of a people, his certainly will. With a band of reformers to help him, and with Sydney Herbert and his able commission to give support and formulate his views, a complete change came through his influence over the status and the duties of the army surgeon.

The army doctor was no longer simply a curative officer; he became, from 1858, an authorised preventive sanitary officer, and from that date to the present a certain amount of friction has occurred owing to this criticising and recommending duty between the executive officers of the army and the medical officers. It would be quite impossible to describe the amount of personal authority and rights of proprietorship some old purchase colonels considered they possessed over the men and officers of their battalions. They seemed to imagine in some cases that they had bought the regiment bodily and could do as they pleased with it. Accustomed to regard the physician as purely a man to cure sick folk, one can easily see that such old-school officers received with surprise, and shall we say annoyance, the recommendations of the newly appointed sanitary officers. Quite untrained in all sanitary questions the old-school officers, like many civilians, looked on disease as a necessary condition of the military life, and gave little heed to the preachings of the doctors. Looking back now over the years that have passed, there is no doubt but that we should have been made into a separate corps in 1858, and not have continued as we did until 1873, acting as sanitary advisers of the men who immediately commanded us. It would have saved much friction, and we would both have been happier.

However, we have gone on since 1858, ever proclaiming that prevention is better than cure, and that he is the wisest of physicians who keeps men in health. This line of thought alters our whole bearing towards disease, and we now no doubt lay down the law as to prevention and as to sanitary safeguards in a way that is not as yet the rule in the profession of medicine in civil life.

We consider ourselves the foremost sanitary body in the world, and we find that whatever opinions foreign armies have as to our military systems, they gladly copy our sanitary rules, and look with amazement at the comfort and sanitary conditions we have won for our soldiers.

Nothing would be gained by telling here the stories of the fights fought for every comfort the soldier to-day enjoys, but we must blame ourselves for not having educated our masters, and thus weakened

opposition. The lesson is full of instruction for the whole profession of medicine, now awakening so much to the requirements of sanitary science. Even as we write the dropping fire of the skirmishers is heard, and one can see on the distant plain the mustering of the hostile forces.

On the one side, hygienic medicine coming to the front as the preventer of suffering, and the abolisher of insanitary conditions that war against all that is beautiful in life, and, on the other side, the dense forces of tradition, prejudice, authority without knowledge, blind force, all these are in the opposition. The medical profession will certainly follow our path of suffering, and will learn, as we have done, that it is essential to combine and fight the battle of progress from our own stronghold of independence and union.

All we have suffered as reformers, they, too, will suffer, and finally, they will emerge victors from the conflict, as ever the greatest, the noblest, the grandest profession man ever studied or practised.

Grasping all life in its grasp, standing by its cradle and by its deathbed, shall we not make ourselves still more worthy of our high trust, and win more than ever the love and esteem of all thinking men by self sacrifice and devotion to duty.

Had we in the army remained simply curers of disease, we would still have been as of old beloved, but we have taken the higher and truer part of preventers of disease, and hence much of our trouble.

We are emerging, however, out of the fight, shaken perhaps, but still victorious, and absolute success will come as knowledge increases by-and-bye. But, in addition to our sanitary duties, we have also the whole of the invaliding of the army in our hands, and the whole of the sick leave of officers and men, and have very great power in limiting the duties of officers and men ailing in health. All the question of the goodness of rations is in our hands, and on our final reports action is taken to secure good and nourishing food for the soldier. The quality of his clothing is very much in our hands, and his lodgment is even open to our report. To whom then are we in the army the greatest benefactors. To the whole rank and file of the service, who know that the medical officer is alone able to speak freely against irregularities which may creep in. It might any day be the interest of inefficient officers to desire that we who in the army fill in many ways the post of independent spokesmen should be a weak and despised department, but it is the interest of the people of England that we be intelligent, outspoken, independent, and free from any undue pressure of any kind. In a battalion, or in a garrison, the only man who has the power to advise and to make recommendations, or who has power to point out the ill effects of certain orders issued, is the medical officer, and if he be crushed out and rendered of no account who is to speak.

We should be a singularly independent corps, reporting to the War Minister directly, and protected by him as valuable checks on the often preventible hardships and shortcomings of a military system. Who else could fill our place? Look through the Army List and see. There are none others who could do the work. All the world looks to the English army as a model of men living under fair sanitary condi-

tions, and we can proudly boast that although we have suffered much in building up the system, it is altogether and entirely the work of the medical officers of the service, and further, it is no copy of any foreign army, but thoroughly and entirely English.

SECTION VII

CONCLUSION

143. Little now remains to be said. In this paper the advantages and drawbacks of the old and the new army medical systems have been fully compared. A verdict wholly in favour of the unification principle is arrived at, and one awaits with confidence its trial in peace or in war. If medical organization can ever attain perfection it will be under this system.

It is necessary again to call attention to the principle that lies behind all this discussion.

Unification means taking our stand as army doctors, and from that basis asking for privileges or for the removal of grievances.

It means living for our profession, and, if possible, combining the learning and skill of the physician with the organization, the discipline, and the order of the soldier, and such a unification is perfectly possible.

It is true we labour under difficulties in developing our culture, thrown as we are in a thousand situations, where all study is impossible, and books and periodicals are never seen.

What we can achieve is comparative professional efficiency in peace, as compared with the old days, and certain readiness in campaign such as never was feasible in any of the old wars.

In England we have intellect, wealth, a splendid tradition of devotion to duty and high professional spirit. And if, with all these advantages, we cannot develop a medical service finer than any in Europe, something must be rotten somewhere. Under the regimental system efficiency could never be secured. Now it is perfectly attainable.

We want for our department *esprit de corps*, strong traditional feeling of devotion to duty in peace and war, and a determination to stand by the soldier in every danger that besets him in every way. We want to be able to appeal to our young officers in the name of a medical department, not a neglected subdivision of the army, but a branch of service with equal privileges, rights, and advantages, with every other corps in it.

With such treatment all will go well. Without it men will come as army doctors, but they will be poor creatures, devoid alike of the spirit of the soldier or the skill of the physician, and they will fail England in the day of her need.

No department can look back on so long and so glorious a record

of devotion to duty as our own army medical corps. Its officers have served England loyally, faithfully, devotedly, pouring out their life and their strength freely in the same stream that her soldiers do. Side by side with the gallant men who sleep in the Crimean graveyards lie sixty soldier-doctors. The Russian bullets and the trying winter of 1854 made no distinction there between the soldier and his surgeon. The doctors who served with them everywhere in peace fell by their side at the last, and the Tartar herdsman to-day feeds his flocks over both their graves alike.

In India, where so many gallant men have fallen, the record of what England's doctors have done is a splendid history in itself, and we are proud of it in every way. Equally devoted to duty with the men they serve with, their rewards have been few and far between, but we trust a better day is now dawing. It is a day of better hope for all us.

We claim that England should pour out with an equal hand her appreciation and her rewards on us, her soldier-doctors, as on her soldiers themselves. If we did good and trusty service in the bad old times when we were forgotten and unhonoured, think how much more likely we are to do well under the more generous treatment of to-day. Few services have such elements for good in them as ours has, and when they are united in one full stream as they never until now have been, we may rest certain that the Army Medical Department will be second to none in every phase of its varied work.

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By Surgeon Major J. B Hamilton - M.D. (2)
From the author 10th Feb 1883.

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THE PRESENT AND FUTURE

OF THE

ARMY MEDICAL DEPARTMENT.

THE prospect of promotion in the Army Medical Department is fast becoming one of vital interest, not only to the officers of the department, but also from a financial point of view to the government. Before we say more we may lay down as an axiom that stagnation in promotion means stagnation in energy—a convertible phrase for inefficiency. If then it can be clearly shown that stagnation is now within "a measurable distance," will it not be wiser to anticipate the event than to allow it to become an accomplished fact. For the immediate cause of the present "block" we must go back a period of 28 years, when it will be seen that the enormous influx of medical officers during '54-'55, and again in '57-'8-'9, will soon, unless remedied, bear fruit in the most hopeless stagnation the department has ever known, and which sooner or later *must* be remedied. It may be freely admitted that by the last warrant medical officers have gained enormously. The pay and allowances are as good as we can hope for, and the retirements for the *upper* ranks are excellent; but here is where the shoe pinches; where, by desert, accident, or good luck, one officer succeeds in getting into the inspectorial ranks, and retires as a surgeon-general with a pension of £730 a year, another equally meritorious, and who may have joined the service actually on the same day, is compelled to retire at the age of 55, on an allowance of £540, with, in addition, the prospective loss of enhanced family pension in the event of his death. Of course, it is not in the nature of things that all medical officers can hope to reach the highest rank and consequent pension, but, on the other hand, neither should it be possible that for the benefit of a few a large number should be practically excluded from all chance of ultimate advancement.

It will now, perhaps, be better to review the prospects of promotion in the department for the next few years, and as this has been rendered possible by the publication of ages, the following results of our calculations will be a guide to officers as to their future chances.

Of course, it will be understood that these deductions refer only to what may be called "normal" promotion—*i.e.*, vacancies caused through officers having to retire under the "age" clause. In addition, there must be a fair margin allowed for what we shall call "abnormal" promotion—steps caused by death, voluntary retirements, or non-selection—*i.e.*, being passed over.

In the inspectorial grades, however, we can count on but few steps except through the age clause. A species of "natural selection," with "a survival of the fittest," has taken place, and steps other than those from age seldom occur. Perhaps if we add 20 per cent. to the normal rate, we shall be well over the mark.

Taking first the surgeon-general's grade, we find that of those *now serving* in the rank three will retire in '83, three more in '84, none in '85, one in '86, none in '87, '88, or '89, one in '90, none in '91, one in '92, one in '93—ten in all, or but one a year for ten years. Here we at once see one of the causes of "stagnation, viz., the senior grades of the department not being subject to the limit of tenure which has been applied to all corresponding ranks of combatant officers, the result of which is that, instead of having ten surgeons-general steps to work on, the promotions for deputy surgeons-general for the next ten years are practically confined to seven appointments, and on these the changes have to be rung till 1893, when the last of these officers has been retired through age.

During the next eight years 21 deputy surgeons-general will obtain the rank of surgeon-general through the seven vacancies before noted, holding it for periods varying from three months to (in one case only) five years, or on the average between two and a half and three years.

In the same period four deputy surgeon-generals will be retired unpromoted, having reached the age of 60. Here at once is a proof of the result of allowing officers to retain their appointments for an unlimited (or only limited by age) period, as, if the three surgeons-general above noted, who are not affected till '90, '92, and '93, were retired after completing five years' service in the rank (as all other staff officers of a similar rank are), not only would these deputy surgeon-generals obtain their promotion and the consequent pension, but also several officers in the

brigade surgeon and surgeon-major grades would be largely benefited.

By following out the "normal" promotions, we find the following results :

In 1883,	3	promotions to	Surgeon-General,
„ 1884,	4	„	„
„ 1885,	none	„	„
„ 1886,	2	„	„
„ 1887,	3	„	„
„ 1888,	3	„	„
„ 1889,	4	„	„
„ 1890,	2	„	„
Total,	21		

And exactly the same number of brigade surgeons will be promoted to the rank of deputy surgeon-general to fill the vacancies. Out of the first of these latter promotions to deputy surgeon-general one will hold administrative rank for eleven years, one for nine and a half, one for eight and a half, and one for eight, and after this most of the brigade surgeons promoted will be so close on 55 that few of them will be longer in the administrative ranks than five to six years, in which period they will pass through both the deputy surgeon-general and surgeon-general grades, with an average of about two and a half years in each.

There are two points in connection with this calculation well worthy of consideration. The first is, the age at which administrative rank will be reached, in a few years seldom before 54, a period far too late for the majority of men to begin administrative command.

It has been truly said that "hope deferred maketh the heart sick," and officers who have to serve in the executive grades for over thirty years will hardly be the men to administer successfully such an important department as ours. The second, and from a government point of view the more important point, is the fact that as these officers will seldom serve more than two or at the outside three years in a grade, there will be the greatest difficulty in finding officers to fill the administrative appointments abroad, since, instead of a deputy surgeon-general or surgeon-general being available for five years, few of them will be more than one to two years in a district; this must cause great expense to the public and the officers concerned, to say nothing of the loss of efficiency resulting from frequent changes.

In fact, with administrative officers passing so rapidly through the grades of deputy surgeon-general and surgeon-general, it will be impossible, with due regard to a fair roster, to efficiently provide for the duties of the department abroad, and this question must force itself on the attention of the government (both of England and India) within the next few years.

The next point for consideration is the prospect of promotion held by the surgeons-major, who may fairly be called the back bone of the department.

At the present time there are no fewer than 135 of these officers ranking as lieutenant-colonel, *i.e.*, having completed 20 years' full pay service. In a little more than two years 67 more will attain the same position, and during the following twelve months 58 more ; so that in three years from now, even allowing that 60 surgeons-major will have left the list through promotion, death, retirement, &c., at least 200 surgeons-major ranking as lieutenant-colonel will be on full pay.

This in itself will form a question well worthy the attention of the government ; for never before has any department of the public service been seen in such a condition.

The pay and allowances of these officers at home average considerably over £600 a year, and in India nearly £1,300 per annum.

It may well be asked, is this condition of affairs to the advantage of the state from an economical point of view. In other words, will the State get a return for its money? We doubt it. Officers who have passed the age of 45 are in most instances too old for executive work. They could, no doubt, carry on efficiently the administrative duties of large hospitals, but for duty with troops, and the more active work required from executive medical officers, they are too old; worse again, they will fill up the executive charges all over the world (for with the brigade surgeons there will be some 250 available), leaving the surgeons major of from 12 to 20 years service in the position of assistant surgeons.

Promotion is now almost quite at a stand still.

It is argued by some that because there were a good many retirements during the past year or two, a similar rate will be maintained. This, we think, is a fallacy: many of those who accepted retired pay since the warrant of '79 was promulgated, were men who were only waiting for it to come out to leave the service, and it is not probable that anything at all approaching the rate of

retirement of the past two years can be kept up. In addition to this it must be remembered that as men get up the list they get steps in an inverse ratio; as the fewer there are above them the less chance of casualties.

As the prospects of promotion now run it will take longer and longer to reach the rank of brigade surgeon, so that in five years time no surgeon major can hope for this step in less than 28 years full pay service: a direct contradiction to the statement put forward in the report of the war office committee of 1878, page 51, where it was remarked that "The rank of brigade surgeon would be reached, on an average, shortly after the completion of 22 years service." The same report, page 50, states—"Selection to be assumed to such an extent that promotion to deputy surgeon general be brought down to the age of 48 by the promotion of one-half of the brigade surgeons," whereas, as shown before, this rank can seldom be reached in the future till near the age of 54, even though fully one-half of the present brigade surgeons are never promoted.

In fact, as matters now stand, hardly any of the surgeons major of over 20 years service, except those near the top, can hope to be brigade surgeons in less than from 27 to 28 years service, and only a very small per centage of them can ever attain to the administrative grade.

Many surgeons major cannot even hope to be brigade surgeons, so slow must the promotion to that rank become.

Is it for the good of the public service that such a state of things should be permitted to be reached? Far better look matters in the face, and apply the remedy, drastic though it may have to be, in time.

Before we go further into the subject, it is right we should again record our sense of the liberality of the government as shown in the last warrant, and were matters in a normal condition nothing more could possibly be asked for: matters are, however, fast approaching a crisis, in which not only the bulk of the executive medical officers are largely interested, but the very efficiency of the department, and the working of its administration, are at stake. The homely saying of "a stitch in time" was never more applicable, and, if not applied at once, the proverbial "nine" will hardly hereafter save the rent.

This is no case of "asking for more" : no extra pay, rank, or allowance are looked for, but a way out of the difficulty that will

benefit the government as much as the department, and prevent the utter deadlock to which, sooner or later, we must come if matters are allowed to go on unheeded.

It is hardly, perhaps, the place for those interested to suggest the action that should be taken to remedy this fast-approaching stagnation, but as we have pointed out the probabilities of the future we may be pardoned if we at all events make some respectful suggestions, crude no doubt, but perhaps to the point. One step that is at once apparent is to put a stop to the present system of allowing officers to hold appointments in the administrative grades in perpetuity—perpetuity, at all events, that only terminates when the incumbent reaches the age of 60.

We have not far to look back to see most marked instances of this.

One distinguished officer lately retired, held the appointment of deputy and surgeon-general for over 21 years, and had not the age for retirement been reduced to 60, he would heve been over 26 years in the two ranks.

Even among the officers now serving, we have some notable instances of official longevity. One officer promoted in '73, does not retire till '86, a period of 13 years. Another promoted in '74, does not reach the age of 60 till '90, a period of 16 years. A third, promoted in '76, does not retire till '93, a period of 17 years. As shown before, and, indeed, it is self-evident, such a system upsets the promotion roster completely, and moreover embarrasses government most seriously in its arrangements for the administrative duties both at home and abroad.

It is no doubt a most invidious thing to draw attention thus to the block caused by the early promotion of these distinguished and meritorious officers. And any steps that may be taken to relieve the service, ought most certainly be so arranged as to give every possible consideration to their claims, and full recompense for prospective losses.

The matter, however, must be faced, and the chief question is, what steps should be taken? One proposal is, that deputy-surgeons-generals and surgeons general ought only to hold their appointments for a period of five years in each grade, a deputy, if unpromoted after five years, going on half-pay till required to fill a vacancy in the surgeons-general grade.

This would be in exact accord with the system in the Indian service, and is practically what is done in staff appointments all over the world, and also regarding the command of regiments.

Why should a deputy-surgeon-general serve for 10 or 15 years in the rank, while a lieutenant-colonel commanding a regiment has to vacate his appointment at the end of four years' actual command?

Surely the principle that demands new blood every four or five years in a regiment, is equally applicable to a department like the medical, when the duties everywhere are so much alike, and are governed by strict rules laid down in the regulations.

The system of five years' tenure of appointment, though at first sight undoubtedly equitable, would however, we think, be found inconvenient, especially in the case of officers on foreign service, who would have to be brought home on being placed on half-pay—though even this has frequently to be done now—as when officers are promoted abroad, they must come home if supernumerary to the establishment.

Another suggestion commends itself to notice, which will be found, we think, open to none of the above objections, will cost government nothing, and will enable the foreign reliefs, and the flow of promotion, to go on in an even current.

We suggest the total abolition of the title of deputy surgeon general, and that all administrative officers should be styled surgeons-general, to hold the appointment for the period of seven years, and then to be absolutely retired, or sooner, if they reach the age of 60.

The first four years in the grade officers to hold the relative rank of colonel, as the deputies do now, and in fact to get the same pay and allowances, so that there would not be the smallest increase in expense to government over what is incurred for the present deputy surgeon-generals.

The last three years in the grade officers to rank as majors-general, as the surgeon-generals do now, and to receive the pay and allowances now given to surgeons-generals.

The effect of this scheme on promotion would be most marked, as the following table will prove:—

1883	... ...	13 steps would go.
1884	... ...	3 ,,
1885	... ...	1 ,,
1886	... ...	2 ,,
1887	... ...	5 ,,
1888	... ...	6 ,,
1889	... ...	9 ,,
1890	... ...	13 ,,
	Total ...	52

In addition to this about 28 men would, in the same period, be retired for age; so that, taking only the normal promotion, the present 80th man on the list, *i.e.*, 30th surgeon-major, would, in seven years' time, stand first for promotion to the rank of surgeon-general with 32 years' service, or adding 35 per cent. for casualties of all kinds, the surgeons-major who entered in 1859 would be next for promotion, with a total of 31 years' service.

So far, we think, there can be no objection to this plan on financial grounds, and, as a matter of convenience and efficiency, the proposal will bear the closest investigation.

The system of having a surgeon-general doing exactly the same work in one place as deputy surgeon-general does in another, can only be explained on the grounds of the necessity of having some place to employ senior officers in—in fact, to justify their existence. Take for example the cases of Malta and Lucknow. The former held by a surgeon-general, the latter by a deputy surgeon-general.

At Malta there are about 6,000 men; the work is all in a ring fence; there are practically no out-stations; the island is not liable to extraordinary epidemics; and, as a matter of fact, was, for some time, administered by a brigade surgeon.

At Lucknow there are 2 regiments of European Infantry, 1 of European Cavalry, 3 Batteries Royal Artillery, 2 Native Infantry Regiments, and 1 Cavalry do. In addition there are the stations of Fyzabad, Seetapore, Moradabad, Bareilly, Naini Tal, Ranikhet, Chowbuttia, and Almorah, nearly all with considerable garrisons of European and Native troops, the circle is moreover liable to severe epidemic disease, the stations are far apart, and the physical labour connected with the administration is very great; if then a deputy surgeon-general is considered sufficient for this large circle, how much more ought the same officer be capable of administering to the medical wants of Malta?

Our proposal then to have all the administrative officers in one grade (though holding relative rank according to service), would enable the government to make use of the ablest man where the work most required his presence, and would do away with much of the useless shuffling of the cards now rendered necessary by promotion to the higher grade, and consequent change of station.

Under the present system it could hardly ever happen that an administrative officer would be five years in a circle, as, if a deputy, he would probably be promoted before the period expired, if a surgeon-general (with the three exceptions before noted), he must be retired through age.

The proposal moreover, has the advantage of not increasing the cost to government, on the contrary, there would be a large saving in travelling expenses, and in the pay and allowances of officers moving from one end of the world to the other, whose services, for the time being, are lost to the state.

An arrangement of this kind would, moreover, permit of the younger and more active members of the department being employed on active service, and would do away with the heart-burning which must have been experienced by so many senior officers during the last campaign at seeing administrative officers selected from the lower grades, and given local rank in the field. If all were surgeons-general no such feeling could exist; one of the rank was selected—that's enough!

The next point that requires consideration is the pension rule; and here again we see the utmost inequality existing.

One officer who may have been the last of a batch will retire on a pension of £730, while the first man of the next batch earns but the brigade surgeon's maximum pension of £540; in addition to which the first-named enjoys, for a period of at least 5 years, the rank, pay, and allowances of the higher grades—in themselves most valuable additions to his fortunes. How then are we to equalize this? By carrying a little further the intention of the last warrant. There is no doubt but that the rank of brigade surgeon was instituted with a view to giving unlucky men a higher rate of retirement, and had the intention of the committee been carried out in its entirety, and strict selection been made the rule, the rank of brigade surgeon would be reached by deserving men in 22 years, and that of deputy surgeon-general at 48 years of age, instead of, as soon must be the case, 27 to 28 years, and the age of 54, respectively.

No doubt, strict selection is difficult to carry out justly, and it would also open the door to such accusations of nepotism as would cause a continual state of irritation and distrust, no matter how fairly the selection might be managed; so that, practically, it must be limited to the rejection of obviously unsuitable men. A very small per centage of steps, therefore, may be looked for from this source.

The actuarial calculations were, however, based on a system of selection, and when the first pensions for brigade surgeons were recommended at £500 a-year, the idea was that the rank would, on an avarage, be obtained in 22 years.

As then this estimate was manifestly wrong, the officers concerned have a fair claim to have the question re-opened.

If it was considered possible for a surgeon-major to be a brigade surgeon at 22 years' service, and "*de facto*" become at once entitled to a pension of £500 a-year, it follows that men who see they cannot reach the rank for five years longer than the time laid down by the actuaries, have at all events a claim to have their position re-considered.

Admitting that 22 years' service was rather too short a time to calculate on, surgeons-major might fairly expect to get the step, and become entitled to the pension, at 25 years' service.

There is so large a difference between the pension of a surgeon-major of 25 years' service, and that of a brigade surgeon—£90 a-year—that it cannot be wondered at if men who would otherwise have retired, hold on for the step of rank, with its increased pension; assuming this not be reached till after 27 or 28 years' service, we then have a further cause of stagnation.

Medical officers who would probably have retired after 25 years' service on a pension of £500, at an average age of 47, will, when they have to serve 27 or 28 years for that pension, hang on for the extra £45 obtainable after 30 years' service, and thus block the road for 2 or 3 years longer.

Even supposing a man were under orders for foreign service on promotion, it would pay him well to give £300 for an exchange to remain at home, as the difference between his full pay and allowances would, in two years, more than compensate him for the outlay, and he would in addition have nearly £50 a-year added to his income for life.

The remedy for this state of affairs is obvious, viz.:—Pension for length of service, irrespective of rank, as in the Indian Medical Department.

£365 after 20 years', £500 after 25, and £600 after 30 years' service would, we think, offer sufficient inducement for men to retire, and is well within the financial limit offered by the last warrant, if the calculations of the actuaries had been fulfilled.

The Indian Medical Department gives similar pensions at 20 and 25 years' service, but gives £700 at 30 years, and £250 extra to all administrative officers, after their five year tour.

Of course it may be argued that the Indian Medical Department men are bound to India. True; but, on the other hand, it must be borne in mind the very much larger incomes they draw while there (probably, on an average, 50 per cent. more than the Army Medical Department), and again that while absent from

India, they are on leave, can go where they like, and actually draw larger incomes than the Army Medical Department who have to work hard all the time.

When the last Warrant was issued the Army Medical Department was so far ahead of the Indian Medical Department in respect of pensions, that the candidates deserted the favorite Indian for the home department, and as soon as the India Office saw this, they in self-defence bid higher, with the result of their again obtaining the best candidates.

As soon as it is fairly understood in the schools that the Army Medical Department offers comparatively poor prospects in the future, not only in promotion, but also in pension, the reaction will be even greater, and the better class of candidates will not come forward.

It would be too much to expect the home government to offer quite as high pensions as India, but the rates must be more equalised, or the service will cease to be attractive.

Offer them the maximum pension for executive officers at 30 years service, and give the surgeons-general an extra £65 a-year on completion of 4 years in the rank, with another £65 on completion of the second term of 3 years (as proposed the total to be 7 years), so that the administrative officers would, in addition to the advantages of extra pay and allowances while serving, have £65, or £130 a-year extra, respectively, on retirement—in fact practically what they can now obtain at 60 years of age.

To relieve, however, the present block in the senior surgeons-major grade some immediate steps are required, and nothing better occurs to us than to follow the example of the bonus system, as carried out for the Staff Corps field officers in India.

Many men, no doubt, would gladly leave the service if they could afford it, and the sum that would enable them to buy a practice, or set up house, would induce many to retire.

This would be a case for the actuaries; as, for instance, an officer who had only just completed 20 years' service, and had earned £365 a-year, could not expect to receive as large a sum as one who had 24 years' service, and was close on earning his £411; while again an officer who was near his brigade surgeoncy, with its pension of £500 a-year, would require a proportionate temptation to retire.

A proposal of this kind too is really equitable, as it must be allowed that an officer who has served 24 years on full pay, deserves more than one who has only given 20 years to the state,

but as matters now stand, if compelled through ill-health, or private reasons, to retire, he gets no compensation for his extra four years' service.

Undoubtedly the rank of senior surgeon-major requires tapping, and if allowed to go on increasing in numbers, as it must do for some years, it will be a matter of extreme inconvenience to the government, for it will not be possible to find suitable employment for so many senior men.

While on this subject of senior surgeons-major a separation of the rank into two grades seems necessary.

At first the senior grade was not looked on as a separate one, but latterly it has been clearly defined to be so, by the promotion of several officers to the rank of surgeon-major with the relative rank of lieutenant-colonel.

This being so, we submit it would be for the good of the department if the two grades were made entirely distinct, as in the navy. Officers of from 12 to 20 years' service, ranking as major, to be called, as in the navy, "staff surgeons," the title of surgeon-major being reserved for the officers ranking as lieutenant-colonel, *i.e.*, with over 20 years' service.

There might be some objection, at first, on the part of present incumbents to the loss of the more pretentious title, but this feeling would soon wear off when the benefit to the department became apparent. If this proposed change proved too unpopular for adoption, the titles of surgeon-major and staff surgeon-major might be substituted.

This change would cost government nothing, and would be a decided gain to the service, as tending to restore the position of senior officers, which has latterly been too much lost sight of, in consequence of making the title too common.

There is little doubt that one of the greatest mistakes ever made in connection with the department was the indiscriminate system of promotion at the end of 12 years' service. Far better would it have been to have created a fair flow of retirements in the upper ranks by bonuses, or extra pensions, and have thus established a slower, perhaps, but far more valuable rate of promotion. The rank of surgeon-major is now so common, and the duties of surgeons and surgeon-majors are so similar that there has of late years been a marked falling off in the respect paid by junior to senior officers.

No doubt we are all members of the one profession, but this need not let us forget the respect due to our seniors.

Anything then that tends to restore the position of the senior officers should not be neglected, and, undoubtedly, one efficient plan would be the separation and clearer definition of the executive grades.

The last point of importance we wish to draw attention to is the disregard paid to proficiency in professional knowledge.

No matter how good a physician or surgeon a man may be, no matter how hard he works at his profession, no promotion can be gained, nor can he extricate himself from the dead level of mediocrity. Is there an instance on record of a medical officer being promoted for special proficiency in professional knowledge? We think not.

How seldom have army surgeons ever reaped any reward for their exertions in cholera epidemics in India? Yet of all instances of professional services none shine out more brilliantly. The terrible heat, men demoralised through fear, death on every side; yet the medical officer serves on without hope of thanks, with nothing but his sense of duty done to reward him. Occasionally, a flattering order is inserted by some general officer regarding the services of the Medical Department, but here it ends: no special promotion, no honors. No; the Medical Officer too often sees respectable mediocrity rewarded, and real worth passed by.

Promotion is now and then given for field service, and then only for popular wars. Ashantee and Egypt saw special promotion, but what medical officer (except one who was wounded) gained in rank after the Afghan, Cape, or Zulu campaigns? They were far off, its true, and we had not the advantage (?) of having the "special" reporting every little incident. The work was infinitely harder, and how little the reward.

It may, however, be fairly argued that the home authorities really have no way of knowing who the best professional men are, for so long as a medical officer carries on his duties without friction and sends in his returns correctly, there is little means of judging between the good, bad or indifferent,

Can a remedy for this be found? and how can the authorities be enabled to judge of men's professional capabilities? In the first place, much more discriminating reports on this subject should be made by administrative officers. Another plan to assist the authorities in forming a judgment would be the establishment of a departmental professional magazine, in which medical officers could

publish their cases or operations, and could put forward their views on medical and sanitary matters.

It may be said there are the medical papers, Lancet, British Medical Journal, &c, open to them for this purpose, and see how few take advantage of them? Quite true; but then it must be remembered that the class of articles that would be written by Army Medical Department officers would not, as a rule, be interesting to the profession at home for whom these periodicals are published; an interchange of experience on the cases that come under our observation, particularly tropical diseases, would not only be of value to other members of the department, but would often enable the authorities to form an opinion regarding the professional standing of many men of whose worth they must otherwise necessarily remain ignorant.

An United Medical Service Magazine, published, say monthly, and open to the medical officers of the Army, Navy, and Indian Services, numbering upwards of 2,000 surgeons and physicians serving in every quarter of the world, could not fail to be a most valuable periodical, if fairly well managed and edited.

The Medical Department of the Army is the most purely scientific branch of all the Military Services, yet it alone is totally unrepresented by a periodical.

The Royal Engineers and Royal Artillery both publish their doings, and the papers of the United Service Institutions of London and India still further permit the views of scientific military officers to be ventilated; medical officers alone have to trust to civil professional papers (which are already overcrowded) for the publication of their experiences, and thus much valuable matter is lost, not only to the department, but to the rest of the medical professions. A service magazine, such as is here proposed, would in no way be a rival of the present medical press, quite the contrary, and we believe that many men who now never commit their experiences to writing, would, if once trained to it by having a paper of their own, prove valuable contributors to civil periodicals.

Another point worthy of consideration, is the selection of officers for the important posts of Professors and Assistant-Professors at Netley. The present incumbents of the former are nearly all "well stricken in years," and a selection of new incumbents must shortly be made. How better can the fitness of candidates be judged, than by the light of their contributions to a Medical Service Journal open to writers on the subject of Military Medicine, Surgery, Pathology, and Hygiene. These appointments should be opened to officers on full pay, and selection having been

made of assistant-professors, they should be eligible for the professorships when vacant; this would open a line for officers of a scientific turn, and the competition thus caused, could not fail to be most valuable to the service at large.

There are other minor matters connected with the Department that might be touched on, uniform, for instance, in which there is still much to be desired, but we think it better not to raise issues of no real importance, and in putting the preceding remarks before the Government and the Army Medical Department, we do so with a full sense of their unworthiness and want of comprehension of so important a subject, but if we can hereby lead thinking men to examine into the matter, we shall feel that we have not laboured in vain, and may hope that before it is too late, a remedy may be found for a fast approaching condition of affairs, that all interested in the subject must deprecate.

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PROFESSOR LONGMORE, C.B., Army Medical School, Netley, in the Chair.

ARMY MEDICAL ORGANIZATION IN WAR, WITH SUGGESTIONS AS TO MILITIA AND VOLUNTEER AID.

By Surgeon-Major G. J. H. EVATT, M.D., A.M.D.

THE CHAIRMAN: Ladies and gentlemen, before introducing Surgeon-Major Evatt, who is to give us a lecture this afternoon on some of the arrangements for supplying the needs of the sick and wounded in time of war, permit me to say one word on the circumstance of my being in the honourable position of your Chairman. I should have much preferred seeing some General Officer of large military experience, or some one whose official position has led him to discharge duties of military administration on a larger scale, occupying the chair on this occasion; for it seems to me that the fact of a medical Officer being placed in the position of Chairman may make it appear that army hospital organization and administration in the field are regarded as simply a surgeon's matter; whereas, when we consider the large scale on which field hospital establishments are organized in the present day, their costliness, the intimate way in which their working is bound up with the work of many other army departments, and when we remember the influence for good or ill on a whole force, which they exert according as they are well or ill organized and conducted, it becomes evident that the subject is by no means merely a surgical one, but one that deeply concerns all ranks of the Army from the highest to the lowest. However, I have been asked to take the chair in a manner such that I did not feel I could decline to accept the post, and, trusting to your indulgence, I am here to discharge its duties. Allow me now to introduce Surgeon-Major Evatt, our lecturer, to you. He is a medical Officer of standing in the Service. He served in the Perak expedition of 1876, and subsequently during the war in Afghanistan, and has long been known both in his own branch of the Service, and in other branches, as having devoted a good deal of time and attention to the subject of military hospital organization. He has also made the subject familiar to many outside the limits of military life by his writings. He will doubtless bring before us many remarks and suggestions that have been carefully considered by himself, and that will be worthy the consideration of us his auditors.

Dr. Evatt: I propose in this paper discussing the subject of our medical organization in war, and to make certain suggestions as to its more efficient working, and further to lay down certain proposals as to the aid we should receive from the Militia and Volunteer services of this country in order to secure war success.

I trust you will allow me at the beginning of my paper to say how important a function this Institution fulfils, inasmuch as it allows an Officer of any branch of the Service to come here and offer his suggestions as to weak points which, in his opinion, may exist in the Service; and how important, in my humble opinion, it is to encourage and not to stifle such expression of opinion, provided always the just demands of a fair discipline are satisfied.

The medical service is in this respect of free expression of opinion more handicapped certainly than the artillery or engineer corps, for these latter arms of the Service have their own corps journals, where an Officer of any rank, senior or junior, may open up, under his own name, the most vital or radical discussions as to his corps organization. We as yet have no such journal, and hence the Officer who feels any changes desirable is forced to have recourse to other means of awakening public opinion far less weighty than signed papers.

In the first place I have to complain that—so far as my personal experience goes in the Service—the subject of military medical organization for war has received little study by military Officers, and I can count on my fingers the number of Officers I have met who fully appreciated the fact that they—that is, the purely executive Officers of the Army—are to-day as absolutely responsible for medical war efficiency as for the efficiency of the artillery or any other branch of army service. Few great military leaders have disowned this responsibility; on the contrary, the more one studies the lives of the great soldiers of past centuries, the more one can see that, according to their lights and to the then prevailing views of preserving life from disease, those military leaders were quite ahead of the age they lived in, and they felt for their men an abundant sympathy in guarding them against breakdown from sickness, and, if sick, did as much as they could to make them comfortable. I complain that to-day, in our Army, I fail to find any general knowledge of medical war wants diffused through the Service; and that while the medical service is struggling to put itself into unison with modern war demands, it finds itself handicapped, and not supported by current military opinion.

That it should be so is very lamentable; but I blame the medical service for much of this apathy or ignorance, for we have not taught the Army as we should have done. Had we but explained to Officer and soldier by lectures and demonstrations what our wants and aims were, we should have killed out opposition, and made partizans, instead of opponents, of the military Officer. Influenced by such views as these, I ask to-day to be permitted to explain what the aims of the more recent medical changes in the Army were, and why we have broken with the past organization of the medical service.

To understand the present system, I must ask you to go back with me thirty years to 1853, and the year that succeeded it, and see what

was the then method of working the medical service in war. Let us take the army that embarked for the Crimean campaign as our example, and see how we were then situated as regards the war system of the medical service.

The medical service then consisted of a grouping of medical Officers, commissioned by fours, threes, or singly, to every battalion or battery. These Officers wore the regimental uniform, were under the command of the battalion commander, and administered their regimental or battalion hospitals under the control and on the responsibility of the military commander of each unit.

In every garrison there were a series of small battalion, regimental, or battery hospitals, each entirely distinct and separate, where the sick of each battery or battalion was treated by its own battalion or battery doctor.

The nursing was done by a regimental hospital sergeant and a certain number of privates of each battalion who were placed by the Commanding Officer for duty in the wards.

The hospital sergeant was the executive agent of the military commander to maintain discipline in the hospital, and to see that the medical Officer's orders were carried out, for the army surgeon himself had no definite power of command over either sergeant, orderlies, or patients, but referred all questions of the kind to the military commander. If a regimental surgeon went sick or went on leave, a staff doctor, of which there were some sixty or seventy in the Service, was employed in filling up the sick man's place; but still the same system went on, and the staff doctor was simply the *locum tenens* of the absent man.

For every detail of work in the regimental hospital the Officer commanding the regiment was officially responsible, save only and except medical treatment. The discipline was done by the Colonel; orders were issued by the Adjutant; the Quartermaster did the transport and stores work, and the orderlies of the battalion did the nursing.

There were not in England in 1854 more than three, if so many, general hospitals; all the sick were subdivided in each garrison into small groups of regimental hospitals. An Army Corps consists, as you all know, of about forty-seven units, divided into divisions, brigades, and corps troops. When the army went to the Eastern campaign, the Army Corps had with each of the forty-seven units an hospital varying in size according to the size of the unit. Whatever size the hospitals were, they were purely regimental; the doctors wore the regimental uniform, and no authority existed for moving them from their battalions, or, if they were moved, no power existed to move the sergeants and nursing orderlies—men quite as important in their way as the doctors themselves.

This is what is everywhere called the regimental system, and in 1854 it was put to the test by actual war. An army exists for war; if it fulfils that function, it is good, if it fails in that duty, then, however successful as a social organization, however pleasant as a centre of comradeship, however full of interest and romance it may be, it is a sham, and had better be cleared away. I maintain that the then

organization of the medical service was, as far as a military war service is concerned, a sham. Measured by the war test it was a failure; why, we shall now proceed to discover.

Whatever the old-fashioned campaigns of last century were, with their easy marches, their slow manœuvring, their retirement for six or eight months of each year into winter cantonments, war is to-day a different thing. To-day rapidity in movement is a distinct factor in military success. The army that unencumbered can rapidly strike a blow at the enemy, is the army that has many points in its favour in the game of victory. I say now that any army which attempts in modern war to carry forward with it its sick and wounded men, a principle implied by the regimental hospital, is doomed to failure. The heaviest burden, the most killing weight an army ever carried with it, is the sick and wounded man, and how to get rid of him is really the keynote of all modern medical organization in every country.

Let us, returning to the Eastern Army of 1854, see how with its then medical organization it fulfilled the demands of modern war. Take its ambulance system on the field; go to the hillside of the Alma on the evening of 20th September, 1854, and see how it worked there. The total of regimental army doctors and of regimental orderlies with the Army Corps that took part in the fight that day was ample and sufficient under better organization to have done well by the comparatively few wounded.

There was not any attempt at ambulance organization. The battalion surgeons of the regiments under fire, aided by the bandsmen, carried away, or tried to carry away, the battalion wounded. There were no trained regimental bearers, no bearer-companies, no field hospitals, no ambulances, no hospital corps, no equipped hospital ships, and behind all was the chaos of Scutari with its "dreary corridors of pain."

I will ask you to put yourself in the place of the battalion surgeon of September, 1854, as he stood that night on the hillside of the Alma, and saw his friends and comrades lying on the ground with none to help them, no ambulances to carry them, no hospital corps to nurse them, the bare 'tween decks of the empty transport to be their hospital ships, and trusting to the sailors of the fleet for the hammocks they used as stretchers to carry them to their ships. I will ask you to think of Thomson of the 44th Regiment left on that battle-field with 400 wounded Russians with no attendant save his soldier servant, and say was it possible for us to stand by so fatal a system.

The faults I find with the system of 1854-55 are as follows:—In the first place, by keeping the sick of the army in a great number of small regimental hospitals in a garrison you effectually paralyze all real professional progress amongst the doctors. It is almost impossible for the small experience of a battery or single regimental hospital in peace to give a large field for medical study, and owing to the isolation of the doctors that intellectual friction which in the end produces progress, is not developed. Secondly, as regards nursing, if you make your nursing orderlies merely chance men taken from the regiment, you cannot develop a body of trained nurses who will stand

by that special line and give their whole heart to it. Remember that in a regimental hospital the only post for a non-commissioned officer was the one of hospital sergeant, and no intelligent private man will come if he is to remain always a private. In developing nursing then the old system failed to provide the best.

As regards hospital administration again it failed, because to make a great hospital work, you must be trained in great hospitals. Just as you cannot practise brigade movements with a corporal's guard, so you cannot make a doctor, trained in a small hospital with one hospital sergeant and a few orderlies and some twenty or thirty patients, rise suddenly to the power of administrating and controlling great war hospitals with hundreds of sick. He is paralyzed and overwhelmed by the responsibility, and as by having battalion hospitals you kill out your need of a hospital corps, when war comes you are left without subordinates, and have to fall back on the scratch teams of drunken pensioners of 1854-55. But if you do this your patients die, and your hospitals break down and become the byeword of the century.

Again, if you attach your medical men by threes and fours to battalions and render them immobile, then when you go on a campaign or into a fight, if one corps is burdened with sick or wounded and another corps is fit and well, you overwork your doctors in the sickly corps, while the doctors of the unengaged and healthy regiments remain idle.

So it was at the Alma, the whole of the doctors of the battalions of the divisions not under fire were quite idle, but an overwhelming labour rested on the doctors of the engaged battalions. You are forced *nolens volens* to fall back on a larger unit than the battalion, and you come as all armies come in the end, to the divisional unit. But if you are to keep your soldiers in good *morale*, you must let them see that if wounded in the fight aid is ready to hand. I do not call it aid to take the bandsmen and make them dressers of wounded. The band itself as music is an aid, and an important aid, to men in the day of battle, and to break it up is to handicap yourself against success. You must have trained bearers able to check bleeding and to afford real aid to the suffering; bandsmen never could do this. But beside these regimental bearers, you need to have, for the same reasons as for the doctors, some larger unit than the regimental ambulance help; that is essential and valuable, but it is insufficient. The battalion doctor cannot carry chloroform in any quantity, nor cooking-pots for the all-important soup, nor brandy enough for many wounded, nor operating tables and instruments demanded by modern surgery; and you need some help between the battalion surgeon and the field hospital farther in the rear, and that help is the admirable bearer company, of which I shall speak directly.

But if we go a step further, we come to the climax of the subject, and that is, that you cannot in war have a regimental hospital for seriously sick or wounded men. In the first place, if a division is told off for an attack, one brigade is sure to suffer more than the other, for one is in support and one is in reserve. This means more wounded in one brigade than the other, and you need some power of

equalizing the work, or the sick of the first brigade will be neglected, while the doctors of the second will be idle; and so you lead back again to the field hospital common to the whole division.

But say that we have regimental hospitals, and that the twelve regimental hospitals of a division have all a fair proportion of sick and wounded, and the division is to march forward, what becomes of the sick? If you take them with you, you will certainly be beaten by the enemy, for you will be creeping along, encumbered with vast trains of sick and wounded, and that certainly is not war; while if you leave the regimental hospitals behind, you advance without any medical aid.

And think too of the doctor and the scratch hospital left behind! You have during peace deprived him of all power of command over his subordinates, the Colonel had the discipline, the Adjutant issued the orders, the Quartermaster did the transport and the rationing, and, lo! all are now marched on, and the unfortunate doctor, who has been taught never to take any initiative, is now suddenly to become Commander, Adjutant, Quartermaster, and Transport Officer all in one. It is not possible; so slowly we work back again to a series of divisional hospitals, with their own nurses, their own Quartermasters, their own Transport, and controlled by doctors trained in peace to direct and manage their own hospitals in war.

Let us again turn and see what was the end of this Crimean chaos, for you must remember that although the Crimea and Scutari were great troubles, the Crimean campaign was not really a war trial at all. War means movement, and the Crimean Army never moved; practically it marched to the heights above Sebastopol, and there it dug itself in, it hutted itself, and there it remained until the town fell. Such wars are rare. It was really a great case of sitting out, and not fighting, and any one can see that if transport troubles and hospital troubles beset the sitting army that lay in front of Sebastopol, how far more heavily the same troubles would have fallen upon that army if a long line of advance into the Russian interior had taken place, and a line of communication had required to be held.

But public opinion demanded a full inquiry into the Crimean medical experiences, and in 1857 and 1858 Sydney Herbert's Commission sat and introduced a number of improvements, but it still made no radical change, and it really made war-efficiency little less within the range of practical achievement that it was before the war of 1854–55. It gave the doctors rank and pay. It founded the germ of a hospital corps; it developed a kind of hospital commissariat; it formed two general hospitals, supposed to be training schools for war work; but it still stood by the fatal error of the maintaining the regimental hospital and the regimental doctors in peace, and that really killed out all the other advantages.

As I have said previously, if you keep up regimental hospitals, you paralyze our training for war, and if you take all control out of the doctor's hands in peace, and make some one else responsible, you develop a body of weak-kneed men, who, when war comes, stand paralyzed by its demands on their energy.

To Lord Herbert we owe much, and his name will never be forgotten by the medical Officers, or by that great profession of which they are but the war section. But our debt to him is more that he recognized our sanitary duties in preventing disease than for any real advance in war organization. The Corps of orderlies he founded was not linked to us in title or control or sympathy. Of the two general hospitals he founded the one which bears his name was never anything but a series of regimental hospitals thrown confusedly together, and Netley is a great school, with a permanent staff who do not go to war. The purveyors, who were intended to be our assistants and our agents, became in the end quite independent of us, and the ambulance relief to soldiers on the field was so badly dealt with that, at the Committee on Army Transport in 1866, a very pretty discussion arose between the then Director-General of the Medical Service, the Chief Purveyor, and the Chief of the Transport Service as to who was really responsible for removing the wounded off the field. Nobody knew who was responsible even in 1866.

But the great means of securing progress in our medical service were the War of the Rebellion in America, the campaign of Sadowa, and the disasters of Sedan and its sequences. We began to study foreign systems more and more, and in 1873 and subsequent years we have developed and are developing a new system, which I think will stand scrutiny alike by the scientific soldier, the humanitarian, and the physician.

The scheme of unification now slowly making progress in our Army was introduced in March, 1873, further developed in 1876, and in 1877 it received a still further development. It is still, however, in its infancy, and when you remember what time it takes in England to introduce any change, I think we have not done badly.

In 1873 the medical Officers were removed from the various regiments in which they were commissioned, and the staff and regimental doctors were unified into the Army Medical Department.

Regimental hospitals as distinct units in each garrison were abolished and replaced by central garrison hospitals. The Army Hospital Corps was developed from its previous scattered condition into a strong corps doing all hospital duties, and the medical Officers were made responsible for the management and control of their hospitals in peace and war.

Gradually a body of fifty-two Quartermasters were developed who were to have charge of the subsidiary duties of storekeeper and paymaster of the hospitals, and in 1877 the command of the Hospital Corps was given over to the doctors.

But what interests us most is the war scheme of the 1873 organization.

Firstly, the three or four doctors of each battalion were replaced by one medical Officer who is posted to the unit, be it battery, battalion, or regiment, at the outbreak of the campaign, and who remains with it throughout the war. If he gets sick or wounded he is replaced at once from the divisional doctors. In war, sickness is rife, wounds are frequent, battalions are up to war strength, and there is full employ-

ment for a medical man, and further he is a great aid to *morale*, and has to do sanitary duties also. In peace it is not so. Batteries are absurdly weak, and battalions mere skeletons waiting for reserve men to fill them up in war. A medical man posted to so small a charge would probably come to grief from need of work.

In war time, however, besides the battalion surgeon there is now a body of regimental stretcher bearers, sixteen men trained to ambulance work who assist the surgeon in giving first aid on the field. The band keeps to its music, and a distinct body of men is told off for the wounded. This surgeon has also with him medicine boxes containing portable medicines and first dressings, but there is no battalion or battery hospital.

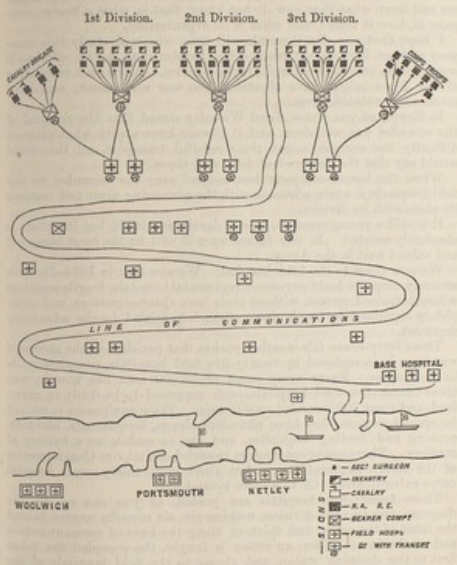
If a man be sick or wounded he is sent to one of the field hospitals of the division.

If you look at the Diagram on the wall you see at a glance the existing medical system for an army corps in the field. There are forty-seven units in the army corps, and there are forty-seven surgeons with those units. There are in addition forty-seven detachments of regimental bearers.

But an entirely new organization now intervenes, that is the bearer-company. Of these there are four with an army corps, viz., one with each of the three divisions, and the fourth is divided into half companies, one half with the cavalry brigade, and one half with the corps troops. I claim for the bearer company that it is the very best and most useful outcome of modern humanity in dealing with the wounded in war. No one can see it at work at Aldershot without recognizing at once its eminently practical character, and what an enormous boon it is to the soldier in war. It seems to me a great pity that it should be working at Aldershot in remote parts of the camp by itself, and not taking part in every field day, and not at Aldershot alone, but at every great military centre where soldiers can be mustered. Its work is most realistic, most thorough, and I feel absolutely certain it only needs to be seen to be appreciated.

In war time this company consists of eight medical Officers and some 200 Army Hospital Corps and Transport men who have with them surgery wagons containing an elaborate supply of instruments, operating tables and dressing supplies, cooking-pots for soup, brandy, various stimulants and suitable refreshment for the wounded, and ambulance wagons thirty-three in number for the removal of wounded. This bearer-company can break into two half bearer-companies, and it is believed that Lord Morley's Committee will separate them definitely into distinct companies. It is merely a question of detail. What is the function of these companies? When a man is hit say in the 1st Battalion, 1st Brigade, 1st Division, the battalion bearers carry him to the regimental surgeon who stops bleeding and applies a hasty first application to the wound, giving water or brandy if possible. The wounded man is then carried to the rear until he meets the ambulance wagons of the bearer-company and the Army Hospital Corps bearers. He is then taken over from the regimental men and conveyed to the dressing station of the bearer-company. This is the regularly

equipped spot chosen by the bearer-company to collect all the divisional wounded. Here the wounded man is examined by the operating surgeon, operated upon, thoroughly dressed, fed with soup,



wine, &c., and finally passed back by the ambulance wagons to the field hospitals, which must be always farther in the rear, and to reach which might cause great delay.

The bearer-company dressing station is really a very light advanced hospital, and a great collecting place of the divisional wounded, who may sometimes remain there until the field hospital is able to make its way through the crowded roads behind the fight and be pitched over the wounded. All this collection and removal of wounded, and

pitching and arranging the dressing station is a drill, a distinct technical drill which needs to be practised and learned just like any other technical drill. The great pity seems to me to be that it is not done with the Army at every field day, so that the Army might see and learn what they now do not know, that is, what a bearer-company is, how it works, and what is its organization.

I hope that one day Generals will arise who will study this company and see if it be not really what I claim it to be, an admirable organization and most essential to the Service. A few such companies at the Alma might have shortened the war very much, and have saved many valuable lives.

In Egypt, as you know, Lord Wolseley stated that the removal of the wounded was well done, and if it were known with what extreme difficulty the companies got their needful transport, all the world would say that the doctors had done well there.

When the bearer-company has handed over the wounded to the field hospitals, it again advances with the advancing army and resumes its place with its division.

It is still a young creation, slowly developing itself, but its future is absolutely assured. In our future wars it will be the most honoured and valued unit in the Army.

We now come to the field hospital. We saw that in 1854–55, with an army corps we had forty-seven regimental hospitals, fragile creations without trained nurses, without their own Quartermasters, and completely organized to break down when left behind by the advancing regiment.

These forty-seven fair-weather yachts that perished in the storms of war have been replaced by twenty-five field hospitals, complete units in themselves. Every army corps of 36,000 men has now in war these twenty-five field hospitals, each supposed to be ready to nurse, feed, and treat 200 wounded or sick men. Their equipment is packed in special wagons, they have abundant drugs, instruments, blankets, cooking and feeding requisites, and are as mobile as a battery of artillery. There are seven doctors to each hospital, one Quartermaster of the Army Hospital Corps, but alas! only thirty-seven hospital corps subordinates. Of this more by-and-bye.

These twenty-five hospitals are posted, as you can see by the diagram, two to each division, making six, six more in reserve behind the front of the army, and thirteen along the lines of communication and at the base. When an action is fought, the wounded are taken first to the dressing station and thence to the field hospitals of the division, these being filled, halt upon the battle ground, and two more hospitals out of the reserve are posted to the division, which is again able to advance with its bearer-companies and field hospitals ready for another fight. The sick and wounded in the halted field hospitals, if they recover, rejoin their battalions, if they get worse or are seriously hurt they pass back along the lines of communication from hospital to hospital to the base hospitals. Here they remain, and if they recover, rejoin their battalions, or if still ill, return to England in those well found floating hotels called hospital ships which have now

replaced the comfortless transports of our old wars. We have now, as you see, a definite system, and we know how we stand. We never knew it before, and success is sure to come to us if we work on these lines, which are themselves merely adaptations of the German system. We can tell exactly how a soldier ought to be cared for, and this was impossible in the confused old days. I do not claim for this system perfection in detail, for it has unfortunately many defects, but its principle is, I think, absolutely true, and no soldier can find fault with it on that ground. The fact is that the medical service is striving to force upon the Army a system of war organization framed to assist the fighting soldier in achieving war success, and as yet the average soldier does not see it. It only needs education to perceive its great advantages over past systems. As it gives a more decided field for medical energy and power of work, so it demands more labour from the medical Officers to work it, but it is entirely the interest of the Army that the medical Officers should have free scope to do good work. There is ample work for both classes of Officers. In the purely military line much has to be done by the pure soldier to teach his men the very great and urgent demands of modern military knowledge. Leave to us the hospitals and we will learn to make them perfect, and it will in the end be for the best.

One of Lord Morley's Commission wished to have the doctors again posted to battalions in order that they might learn to obey and learn to command. This is in truth quite what the old system never taught any army doctor. Having two masters, viz., the principal medical Officer and the regimental commander, we played off one against the other, and certainly did not obey very much.

As to command, when did a battalion surgeon ever learn to command? Why every rule and regulation was framed to paralyze all such acts. An old regimental surgeon never gave an order to any man, and as the Army rules reared him, so he grew up, and then having first deprived him of all power, he was expected in war to rise and do wonders on his own account.

It is not in such ways that men are trained for accepting responsibility. We are now on a better path, and shall no doubt make further progress.

I will now ask you to agree with me that field hospitals are needful, and should be efficient for the work they are called on to do.

I regret to say that manned as they are to-day it is absolutely impossible for them to do good work; nay, indeed, to work at all. But the remedy is easy, and very simple.

To nurse 200 sick men in a war hospital is a heavy task. It is not so in a peace hospital, for in peace many patients are trivially ill, and many are convalescent.

In war few of either are to be found in field hospitals. Trivial cases do not come to war hospitals, and convalescents are generally in a depôt near the base. At any rate, the general average of war patients are far more severe than peace patients. Now in peace we get one orderly to ten patients, and in war one to nine. It is completely insufficient. Naval hospitals get one per $7\frac{1}{2}$ patients, and

we all say that one per five sick is needed for war. That would require forty orderlies to nurse 200 sick men. But if you look at this table you will find that it gives only twenty-two for the purpose.

Establishment of an English Field Hospital for 200 Beds.

Steward	1
Assistant	1
Wardmasters	2
Compounders	2
Storekeepers	2
Clerk	1
Cooks	6
Nursing orderlies	22
Total	37

This allowance of thirty-seven men is completely insufficient to do good work. If you want nursing well done you must have rest and fair reliefs. Twenty-two men cannot nurse 200 with anything like thorough work. Increase it to forty per 200, or one per five sick, and the machine will work. If you read the Report of Lord Morley's Committee you will see in every page evidence of complete overwork of the nursing orderlies; so if in the next campaign we are to do good work we must have men given us to do it. Take, again, the cooks; six are allowed for 200 men, and that cooking for the sick is very trying, for there are many dishes to be made separately, and also much has to be cut up in small portions. We need eight cooks, or two per fifty sick.

Again, as to clerks, if we are to keep regiments informed of where their men are, we need a clerk to do it, and we have only one man to keep all the records and carry on the large correspondence. We need at least four clerks for the 200-bed hospital, so that if 100 beds are detached there may be two clerks for it. But the gravest cause of overwork and threatened breakdown is the complete absence of the coarser assistance needed in a war hospital.

I have placed here a comparative table (see p. 13) of an Indian and an English war hospital for 200 beds, and you will see the difference at once.

In an English field hospital there is not one man allowed to carry water for the hospital. This is the most killing want, as it goes at the root of all cleanliness, and if I am to get water to my hospital I must have men to do it. You do not ask a battery commander to work his guns with half the proper number necessary for the work. Why ask me to work a field hospital on such conditions?

We want this question to be dealt with before our next campaign, for we shall certainly go to grief if we do not get men to do this work. We are asked to do impossibilities, and we only ask that these questions be looked into to see that no man, however energetic, can work under such a handicap.

Comparison of the Personnel of a 200-Bed Field Hospital on the English and Indian Scale.

Class of Servant.	English Scale.	Indian.	Proposed.
Compounders	2	4	4
Wardmasters or dressers	2	8	4
Nursing orderlies	22	29	40
Clerks	1	1	4
Storekeepers (and Stewards)	4	7	5
Cooks	6	9	8
Dispensary servants	0	8	0
Watermen	0	15	8
Washermen	0	5	8
Sanitary police (sweepers)	0	23	8
Messengers	0	1	4
Carpenters	0	1	0
Tent-pitchers	0	10	0
Barber	0	1	0
Total for 1 hospital	37	122	93
Total for the 25 hospitals of an Army Corps	925	3,050	2,325

We want at least eight fatigue men to supply water for the hospital. This will give two men for each fifty sick. When we consider the number of baths, the washing in and about a hospital, it is seen at once that many men are needed.

Again, as to conservancy or sanitary police. In peace we have admirable drains to carry away all sewage from our hospital, but in war we have nothing of the kind, and in a hospital camp in war these men are much needed. In fact, it is deadly to the hospital not having them. I say, again, you are asking us to do impossibilities. You are asking us to make bricks not only without straw, but without clay, and we cannot do it. You are asking us to toil as we do in war like slaves at the coarsest menial work, and yet you give us no men to act as pioneers and to keep the place healthy and clean. When the need comes in great moments of trial there is no work I will not do for the sick man, but it is quite another affair to embark from this country of a campaign and to know that no proper provision is made for this all-important work. Again, as to washing, we have not a single man given us to wash the clothes, and yet we are blamed if the clothes are not clean.

We have, then, to appeal against this want of forethought which hurries us to war without the necessary means of doing good work, and while we are continually urged to be professional, no one is given us to carry water, to act as sanitary cleansers, or to wash patients' clothes. Again, as to messengers, if I want to send a note to a regiment or to an Officer close by my camp, I have no orderly or messenger, and as a consequence I must take a nursing orderly already overworked to do messenger duty, and so neglect of the sick occurs.

You see then by the scale I have drawn up that thirty-seven men are completely insufficient to work our field hospitals in war, and that ninety-three men are not only not too much, but barely enough to make a hospital work. You can now see how legitimate are our complaints, and how heartbreaking it is to go into the field with a unit completely organized for failure.

If England, or the Army, demands that her soldiers be cared for in war, it will not do for her to develop a flash of warmheartedness when a campaign occurs, and accuse her doctors of want of sympathy and neglect. England has her duty to perform, and that is to listen in peace to the fair and just demands of her doctors, and as far as they be legitimate, to grant them. Thus, and thus only, can war efficiency come. Nor do we in any way absolve the military commanders of their responsibility. Command has its duties as well as its rights, and one of its duties, as high as any, is to see that, before going on a campaign, the just demands of the medical service are met. You must not in all these matters legislate on the basis of heroism and self-sacrifice. The sentry at the outposts keeps vigilant not from self-sacrifice, but because he is regularly relieved, and so with our service. You must not draw up codes for saints and angels, but for average men, who get tired if overworked, get hungry if not properly fed, and who feel bitter in their heart if treated unfairly. These are points which are not fully dealt with in Lord Morley's Committee, but they are as true as anything can be, and no Officer I have spoken to on the subject can deny their truth. We need, then, large reserves for war, and I will, in a few minutes, when concluding this paper, show how they can be obtained.

Again, take another point. Where are our field hospitals at the present moment? They are entombed in Woolwich Arsenal, and until the Egyptian campaign no one ever saw one taken out of store. The Officers who saw them in use in Egypt saw them then for the first time, and no wonder that difficulty occurred as to the character of their equipment. In my opinion they should be taken out of the store-room, and posted to each divisional centre, and then the Army and ourselves would see what they are like, and find fault with them if necessary in peace, so that when war comes they may be efficient. This is the way the artillery is efficient. The battery commander does not read about his battery only, or hear that it is in a store-room in Woolwich Arsenal. He has his guns with him, and hence he is accustomed to them, and he and his men know how to work them. Give us and our men an equal chance. Let us have a month every year and practise our field work with the Army.

But, again, take another point. We have a Chief Medical Officer, a Deputy-Surgeon-General, who is responsible for the medical arrangements of the twelve regiments in the division, for the bearer-company, and for at least two field hospitals. Every soldier knows what an immense amount of correspondence this involves and what an anxious position the post is. Yet while the artillery commander and the Royal Engineer of the division have both Officer assistants as Adjutants, our divisional chief has no one whatever to assist him, and he is in consequence completely overburdened with detail work and formal correspondence. I could tell stories of the result of this state of affairs in the field which would be laughable were they not really sad in their results on war efficiency. The remedy for this is not difficult; it is to give the divisional principal medical Officer a junior medical Officer as his secretary or Adjutant or personal assistant.

The attention of the Army should also be drawn to another very urgent detail of our war system, I mean the relations which should exist between the Army commander in the field, and the chief medical Officer serving with him. I maintain that it is entirely in the interest of the Service and of the nation that rules of the clearest kind should be laid down by the Secretary of War, defining the relations of both these officials. All will agree, I think, that intimate and confidential relations should exist between them.

A new theory, however, is now being advanced that the Surgeon-General with an Army in the field is not to be considered as the General's Staff Officer, but simply as the head of a subsidiary department, on a par with the smallest and least important branch of the Service. This is not the history of successful campaigns. We think it a highly injurious idea that would deny to the Chief Surgeon of the Army the status of a confidential Staff Officer of the chief commander. If you so cut off our chief from personal and continuous contact with the General, it will react on the whole of the medical service in the field, and we shall feel that he is not in the confidence of the Army commander, and that there is no one to be spokesman of our needs, and of the wants of the sick at headquarters. Such a condition of affairs will paralyze our energies, and injure our *esprit de corps*.

To-day, we need above all things definiteness as to our position. Either we should be accepted wholly by the Army, or we should be set wholly free from it, and allowed to work altogether under our own responsible chiefs as a distinct and separate department of the State. We can succeed perfectly under either conditions, but we cannot exist at all if we be indefinitely dealt with, if we are to be in the Army, but not of it; to be blamed for failure in war, but left unconsidered in peace; to be thrown over for want of success, yet not listened to in our cry for assistance; to be held down by the bonds of military discipline, yet denied military rights and privileges; to be required to share in all the risks and hardships of field service, yet denied the share of the glory of victory; then, despite pay however remunerative, and rank however high, we shall fail England in the hour of her need.

We read military history, and we gauge very thoroughly our value in the military machine. We recognize the bravery of the soldier and the devotion of the Officer, and we estimate perfectly the efficiency for war work of the battalion and the battery. But we also know well why and where your armies have failed. They have failed in what are called the Departments, that is to say in the Commissariat, in the Transport, and in the Medical services, and it is for the Army to say if it shall always be so.

It most certainly will always be so until one day a great leader arises who, reading the signs of the times aright and grasping completely the spirit of the age, sees that you must crush out with a firm hand all inequalities in the treatment of the various classes of Officers in the Service, and make every man in the Army from highest, to lowest, feel that all are working for the same end—the military success of the nation, and that the victory achieved by the Army is his victory, and its failure is his disgrace.

These seem to me to be the only lines on which to-day an Army in England can be successfully worked, and there is no reason whatever why they should not be made the rule.

If they cannot be made the guiding principle for the Army, at any rate set the medical service free from the military administration, and we will organize as the "Red Cross" societies organize, and build up under the Government a Medical Department for civil and military duties alike, and will send into the field a contingent of medical aid organized under its own chiefs, to be completely responsible for its own failure, and completely rewarded for its own success.

There is another very important question for us in war, and that is the commissariat question. Certain reformers of Lord Herbert's school maintain that we should have our own commissariat in the shape of a distinct Purveyor's Department. We are, I suppose, to free the general Army commissariat from all responsibilities for feeding the sick, and we, a weak, poorly-manned department, are to develop a rival commissariat for ourselves and let the greater commissariat go free. Now apply this principle to the Egyptian campaign. Let us remember that 583 per 1,000—that is nearly six men out of every ten in the Army—went sick during that brief campaign. Are we, out of our weak establishments, to feed, and that, too, daintily, six men out of every ten in the Army? But when we remember that the Army commissariat did not succeed in feeding the Army very successfully, with all its large establishments and masses of trained subordinates, it is hardly to be expected that we would succeed with our infinitesimally smaller commissariat section. In my opinion we should do nothing of the kind. We should hold on tightly to the principle that the General of the Army is responsible for the feeding of his men, sick or well. That if he goes to war, he should first of all think out how his men are to be provided with food, and that the sick soldier has a distinct claim on the general Army commissariat; and just as you post junior commissariat Officers to the commissariat charge of brigades and divisions, so you should, when a war is imminent, post commissariat Officers to the base hospital and to the various units of the medical service, and it shall be their business to provide such food and supplies as the medical men need for their sick. If this cannot be done, and we are to have our own separate commissariat department to ration our own 583 sick per 1,000 of the Army, we might as well simply undertake to ration also the odd men remaining out of hospital! An army with a poor defective commissariat service is really no army at all. It is certainly not a war engine, and no General has a claim to such a title who does not

see before a war begins that this all-important service will not break down.

Again, as to transport, we want a clearly defined transport allowance given to us. We should have a small section of purely medical corps transport; that is to say, enough to move our hospital wagons, and enough to horse the ambulances of the bearer-companies. This transport should be wholly our own, but be available for all camp duties when not specially needed for hospital service.

In our Army the question of transport has always been one of considerable concern, because, as it seems to me, it has been little studied in peace. With numbers of civilians trained and accustomed in peace to look after horses, we have, as yet, no militia transport corps. Yet I feel confident that one could embody, either from the militia reserve or by direct enlistment from the peasantry, several thousand transport militia men accustomed daily to the care and driving of horses. Why not adopt such a course and apply to the great supply services the principles already existing in the other branches of the combatant service?

We have a reserve of Officers, why not call upon them to train themselves for commissariat and transport duties as well as for the duties of the front line of the Army? As to the horses, an army reserve of horses is as easily formed as an army reserve of men, if only somebody takes up the question and sees it through.

As to our medical transport, we need only be told whether we are to look for it to the Army or not. If the Army says no, and if we are allowed to appeal to England for men and horses, we can get the best of both to come and help us.

But I think a militia transport service, and indeed also a militia commissariat corps of civil butchers and bakers, is as easily formed as a militia artillery regiment. If, as is often said, the Army is to be part of the nation, the more we weld together the Army and the people, the better for our war success.

Every hospital embarking for war should march down to the beach with its wagons, its horses, its drivers, its equipment, and its medical staff as complete as a battery of artillery is complete, and so disembark in the enemy's country. This was the aim of the medical reform party, and this aim will surely be realized as time goes on.

Again, at the base of operations we need some body of men who will do the unloading of the hospital ships and medical transports, and who will move the sick from the great base hospitals to the ships and the railways. For this work we have no one now detailed, and you may read in Lord Morley's Report that, while the few nursing orderlies were engaged nursing all day in the hospital, they were waiting all night at the station, to convey and carry by hand the sick to the hospital. If anybody imagines that you can thus work your men and yet make the hospital work with accuracy, they are entirely mistaken. I would suggest, then, half a bearer-company be posted at the base of operations for this special duty. You should also have for your lines of communication two or more bearer-companies for use as sick convoys, either to man the ambulance trains conveying the

sick from the front, or to transport and care for the sick proceeding to the base by road convoys in wagons.

There is one word more I would say before proposing Militia or Volunteer schemes.

It seems to me a sad thing that, as a department, we do not regularly teach the Officers of the Army and the men what sanitary laws mean. In the long tedium of foreign service and in the winter months in England, I would have the army doctor teach, by lectures, ambulance instruction, sanitary laws, the way to avoid the common diseases of campaigns. It is lamentable to think how completely ignorant Officers and men are of the very first principles of health preservation. I take it that no man is fit to command men and armies who does not know the laws of sanitary science and health preservation himself.

The ignorance on these subjects in our Army—always the very one that needs it most—is very great, and the loss of men in the beginning of a campaign from want of knowledge how to avoid sickness, is a most serious matter in a small army. Many men on our Egyptian sick list ailed simply from purely preventible disease. Want of food, want of shelter, and want of knowledge of what sun exposure means, contributed largely to it; for, this, however, the medical service is not to blame, save that it has not in the long era of peace taught the Army the knowledge it ought to have. If our cavalry horses had broken down in any numbers, would there not have been a great outcry? We have classes for veterinary instruction at Aldershot and Woolwich. But no combatant Officer, as far as I know, has ever been regularly taught to look after the health of his men. I notice that the German Officer is taught the elements of sanitary science, yet he, living in his own climate and serving only in European wars, does not need it at all so much as our Army, which serves in every possible climate, and is liable to every epidemic and malarial disease.

But while I thus propose to teach the combatant Officer, I cannot forget to say that you must let us learn all we can ourselves. To-day, however, your Army surgeons are shut out from all contact with the London schools. The Army Medical Department has no point of contact with the great centres of London medical and surgical knowledge. The London garrison is altogether in the hands of the special Guards doctors, and they alone have the chance of seeing the practice of the London civil leaders of medical science. We hope that one day a great central military hospital for the whole metropolitan garrison will be formed either at Chelsea or elsewhere, and that we who have to spend long years on foreign service in India, the Cape, Ceylon, and China, may have the chance of meeting the great London civil doctors, and learning all we can from them.

I now turn to the question of how we are to obtain the large reserves needed for war. We do not need heavy peace establishments, because in peace our hospitals have all the subsidiary services, viz., water supply, laundry, messengers, sewage, otherwise provided for.

But in war we want a body of trained men to be called out to assist us.

I think we should have, of course, our own army reserve of men trained in the hospitals, and passed back into the reserve like ordinary soldiers. But if you work this reserve too rapidly, we should only have boys to nurse our sick in peace, and hence we need a kind of extra establishment to be rapidly trained, say for one year, and passed into the reserve for the remainder of their service. These would be in addition to the ordinary peace-need of a hospital, and would be a kind of one year volunteers, as on the German or French system. We might get many men who would spend a year in learning nursing for the sake of getting into civil hospital or nursing employment.

But I think that we ought to have a distinct militia branch of the Army Hospital Corps, called out yearly like the ordinary combatant militia. These men would be equal in number to the needs of the home army hospitals in war time, so as to free the regular hospital corps and its reserves for war; 1,500 such men spread over England, Ireland, and Scotland would enable us to be quite certain that when war occurred we could call out a body of partially trained attendants who would replace the regular men. When these men were called out annually, either at Aldershot or at the district centres, it would enable us to muster sufficient men of the regular and militia hospital corps men to go through all the field drill of the bearer-company and the pitching and working of field hospitals, a work of which we are to-day ignorant, because the hospitals are packed away in Woolwich Arsenal, and the regular corps is too weak to go through this field service drill. I do not know a more economical system than this of obtaining men, and I imagine we could all recruit for it in the districts. I would form in it again a militia reserve on the lines of the regular militia reserve, and so get together a number of men fit for the fatigue work of the hospitals in war.

We cannot possibly succeed if the subsidiary services of the hospitals are not provided for, and the way to provide for them is to copy, as far as possible, the methods used by the Army to secure men. The formation of a militia hospital corps would, at any rate, give young men a chance of seeing if they liked the hospital duties, and they might eventually enlist into the regular service. I think if we once get the chance of enlisting a militia corps that, scattered as the medical department is over the country, it could secure recruits in sufficiency. While we have artillery, engineer, and infantry militia, I think we also need a medical militia. The militia educates men for the regular army, and so in like manner would our proposed militia hospital corps train men for our needs. I beg you will think of this proposed militia scheme. You cannot think to what difficulties we are put in England, even in times of petty wars, by the complete absence of such a body of men. We have to go about begging for help from every corps, and in the end the corps is weakened, its training is interfered with, and our nursing work is very indifferent.

Only give us a chance of acting as recruiting sergeants for a militia

corps of our own, and we shall, I think, succeed in inducing men to serve under our Red Cross, and learning discipline and ambulance work in our hospitals. Why should we differ from artillery, engineers, or infantry? They all have a strong militia help behind them. We, who need it greatly, have none. Can anyone devise a cheaper, an easier, a more constitutional, or a more common-sense scheme? If so, let us have it, our want is above all things *men*.

We come now to the Volunteer force of the country, and I would point out how completely insufficient its medical service is, measured by modern needs. It has no bearer-companies and no field hospitals; in fact, nothing behind the battalion surgeons and the regimental bearers. We need to organize in every county, and in every large town, a volunteer bearer-company or companies of a volunteer medical corps to supplement the already existing volunteer battalion surgeons. I believe that we could enrol in such a corps many hundreds of men who feel an interest in ambulance work, and many surgeons in civil life would take a commission in such a corps, and drill and organize the bearer-companies and field hospitals. I would organize such companies like ordinary volunteers. Dress them like the Army Hospital Corps, and drill them in all ambulance and field hospital work. They would fill up a great want in the volunteer army, and they would also send us many men for a campaign, and we should thus be strengthened for war.

To begin such a movement you must first of all train your doctors. Last year a scheme was put forward asking the medical students of London to practise ambulance work, and enrol themselves as a volunteer branch of the hospital corps. Several schools are now at work at this idea, and if the Secretary of State for War will give them a capitation grant, the movement will succeed. It will be of inestimable value to England in every way in developing ambulance knowledge amongst the civil doctors, and it is therefore to be hoped that official sanction will be given to the scheme. Your interest and sympathy in the movement would be a great aid. I hope we shall one day see paraded in London a battalion of trained medical volunteers composed of companies made up of students from the various metropolitan hospitals who will go through all the drill as privates, corporals, and sergeants, and so train themselves to command and control the bearer-companies and field hospitals of the future volunteer medical service. When that day comes we shall ask the brigade of Guards to meet the students corps in the park, and form up for the attack of a position; and as they dash forward over the field the bugles will sound the "lie down," and 500 men will throw themselves upon the ground as if wounded; the students corps with its stretchers, ambulances, and all the *paraphernalia* of medical equipment will then sweep over the field, take up the sham wounded, convey them to the dressing station, and go through the routine of sham dressings, and finally convey them to regularly pitched field hospitals in the park. When this day comes we shall provide for London a most interesting sight, and for humanity a real triumph.

It is by such instruction we shall educate the public, and if England once knows what it is we, her military doctors, have been aiming to achieve, her heart will be stirred, and we shall have our one desire fulfilled.

Working on these lines, when war has been declared, the Director-General would simply telegraph to the Divisional P.M.O. "Mobilize." At once the regular Army Hospital Corps in the district would be called in to form the nucleus of the field hospital. The district army medical reserve men would join at the same centre to fill up the cadre of the nursing staff of the hospital. The militia hospital corps would be called out, and would take over the district hospitals, the extra men of the militia reserve joining the district field hospital, and the volunteers of the local bearer-company would no doubt join in certain numbers. The whole would then form a complete field hospital, and with their equipment, transport, and staff, would embark as a body for foreign war. This seems easy, and it really is so. But it needs thinking out in peace, and that all arrangements should be made beforehand. I firmly believe it will one day come.

I have now roughly outlined the main points of our new medical field system. It is an interesting study, and I commend it to the soldier and to the civil physician for their consideration. To-day you have to reckon with new conditions in war, and the growing humanity of the race will not fail to demand due provision being made for the sick and wounded. If the establishments demanded are apparently heavy by comparison with the past, you must remember that the demands of a civilized race exceed the demands of old days and ruder times; but the remedy against these increased establishments is to attend to the sanitary condition of the soldier in the field, and so prevent men going sick. If they do, you must provide liberally for their care and nursing.

Out of our great troubles in past wars we in the medical service are being ourselves educated as to what we want, and we should fail in our duty to England and the Army if we did not boldly state our needs. The autonomy of the medical corps of the Army is essential to our success, and the more it is fostered, the more we shall rise to efficiency in peace and in war. The more we are made dependent on others for success, the more likely we are to fail. If the remarks I have made in this paper at all aid to the better understanding of the war needs of the medical service, I shall be amply repaid.

The Chairman: The lecturer has now brought before us a variety of proposals for improving the organization of the military medical service, especially in time of war, and it will be advantageous to us if some gentlemen who have had experience on the various topics which he has discussed in his paper, many of whom are here present, will give us the benefit of their observations, especially with regard to the advisability and practicability of the additions to the regulation *personnel*, and of the supplementary aid that he has proposed for the field hospitals; or, on the other hand, any alternative views they may hold which will appear to them to have a better chance of attaining the object that Dr. Evatt has had in view, and which, of course, we all much desire to see attained, namely, an increase in the efficiency of our military medical establishments in time of war.

Mr. R. W. Taynton: I am simply a volunteer of the last twenty-two years, and

in order to show, so far as medical arrangements are concerned, the disadvantages that the medical service has to contend with, I will detail my experience at the Windsor review. I went down there with the volunteers, acting under Surgeon-Major Gastein in the bearer-company. Two field hospitals were detailed for the troops. I was told off for No. 1 hospital. We had amongst the different cases a man who came in suffering from heat apoplexy. All the stores professed to be perfectly correct, but owing evidently to the cases not being under the control of the medical Officers, the material being simply kept in store, when an icebag was called for, there was nothing to be found in the cases that was immediately available for the purpose. All the material was stuck together. The old muslin and gutta-percha tissue had been kept in store for such a number of years that it was perfectly useless. I think it was from a quarter to half an hour before we could find any material suitable for the purpose of applying ice to the man's head. That is my experience of medical stores as served out to doctors, and so showing the necessity of the medical Officers having the absolute control of all the medical stores, and being responsible for the efficiency of the same.

Dr. Lawson (Inspector-General of Hospitals): Before offering any remarks I should have preferred to have heard the opinion of the military Officers who are present upon the subject which Surgeon-Major Evatt has brought before us. There are few medical men who do not thoroughly recognize the necessity of the organization which he recommends. In fact, as war is carried on nowadays, it is an absolute necessity that we should have the means of suddenly concentrating our medical force upon a given point with all requisite stores and appliances to enable them to do the work. Our present arrangements do not admit of our doing that, and I merely repeat what I believe is the general feeling of everybody in the Medical Department when I say that it is absolutely necessary that this should be done before we can develop the energy which we are willing to give, but which under present arrangements we are prevented from doing. Of course there are a good many points of friction in doing this which will take place between the Medical Department and the military departments, and these must be settled by persons acquainted with both sides of the question coming together and making arrangements that will obviate them. Certainly the state of dependence of the Medical Department has greatly prevented the efficiency of the Service, and the medical man who wishes to carry out his duties properly is frequently placed in the position in which I myself have been placed of having to adopt means which I knew I was not justified in adopting by the Regulations. If anyone had objected I knew that I must give in, but I saw that if I did not do so the Service would have been seriously hampered. There is one point which Surgeon-Major Evatt referred to which he does not regard in quite the same light that I myself do. His acquaintance with the Service is much more recent than mine. Mine extends to something very close upon half a century, and when I entered the Service the regimental system to which he alludes was prevailing. I had the advantage of meeting a great many regimental Officers who were thoroughly acquainted with the proceedings in the Peninsular and previous wars. I quite admit the system as then prevailing was not such as would enable us to concentrate our forces upon a given point as required so as to meet the necessities of the present day, but I think if he looks back he will find that that system was deserving of a great deal more credit than he seems inclined to give to it, for I am sure that the amount of aid afforded to the Army by the Medical Department at that time and under those circumstances was worthy of a great deal of praise. I certainly myself strongly recommend that the relations of the Medical Department to the military department should be thoroughly and clearly defined, so that each party may know exactly how it can depend upon the other in order to carry out the objects desired. In the Crimea, as you, Mr. Chairman, are well aware, the Medical Department was very anxious to carry out a great many improvements, especially with regard to sanitary measures, but they were deprived of the power of doing so. Application had to be made to the military authorities, and the result was nothing was done. It was not until the state of things became so bad that the Minister of War sent out a Commission with power to do anything that they thought right, irrespective of the Officer in command or of anyone else, that these improvements were carried out. Many

things that the Medical Department had recommended to be done were not done by the military authorities, but when this Commission came out with the authority of the Secretary of War, they claimed credit for carrying out these improvements, and left it to be supposed that we did not know how to do them.

Brigade-Surgeon Dr. Dox: Allow me to offer a few words upon one particular point referred to in Dr. Evatt's very interesting and, I may say, exceedingly lucid lecture. We all know his enthusiasm for the subject he has in hand, but now we have had a very good opportunity of judging of his thorough practical knowledge of it, I wish particularly to refer to the stress which he laid upon the formation and duties of bearer-companies in future warfare. As far as I can judge, there seems to be a great want of appreciation of the important functions of a bearer-company in modern warfare; and of late, particularly in the last Egyptian campaign, the true duties of the bearer-company were not, at all events, popularly understood. In these days, when it no longer takes the weight of a man's body in lead to kill or disable him, but when, as at Gravelotte, with arms of precision, 6,000 men were swept down in ten minutes, it is absolutely necessary, if we want to give timely succour to the wounded, that it must be given where they fall and when they fall. And therefore it is that the Bearer-Company Organization and the Regimental Stretcher Organization have come so prominently to the front in recent wars. It is very little use having magnificent base hospitals with every appliance; it is very little use having even hospitals in the front splendidly equipped, if the wounded on the field are allowed to bleed to death and sink before they can reach these hospitals. Therefore, I think, in view of strengthening in every possible way this first aid bearer-company system, that Surgeon-Major Evatt's proposal, to make a militia and volunteer reserve of bearers and of men who can be employed in field hospitals, a very important one. I think I know something of field hospital organization from a great deal I have had recently to do with these matters, and I also know probably as much as almost any one of the detail of these hospitals; and I must say I think a vast deal has yet to be done to make them efficient. As far as I can make out, a great deal is now being done, and will shortly be completed, to make them more efficient; and I feel confident that there is every desire on the part of the heads of the military departments to strengthen and organize these hospitals so as to make them thoroughly efficient in every possible way. I sincerely hope, if we should before long or in the near future be engaged in war, a very great improvement will be found to have been made both in the organization and equipment of field hospitals and bearer-companies.

Lieutenant-General Lord Chelmsford, G.C.B.: Mr. Chairman and gentlemen, as one of the few military Officers here present to-day, I felt it would be wrong if I abstained from saying a few words, to express to Surgeon-Major Evatt and those here present how thoroughly I myself, and, I believe, everyone in the room generally, have been interested in the lecture that has just been given. I cannot help feeling that the charge of want of interest in the subject-matter of the lecture on the part of regimental Officers cannot be gainsaid when looking at the empty benches, which I regret to see on an occasion when we have before us a question of so much importance. I think that those who have considered the question of medical treatment in the field will agree with Surgeon-Major Evatt, that the position of the Medical Department at the present moment is not sufficiently defined. At the same time, I cannot understand how anybody can suppose for one moment that the General commanding troops in the field is not responsible for the efficiency of every portion of his command, whether it be commissariat, whether it be transport, whether it be the medical, or whether it be the combatant portion. Surgeon-Major Evatt, however, who has come lately from the experience of the Egyptian campaign, would seem to be under that impression as regards his own branch of the Service. With regard to the complaint which he makes with respect to want of transport for the medical department during the Egyptian campaign, I am afraid he is not alone in that respect. We hear of similar complaints made by the commissariat and other portions of the force that their wants in this respect were not attended to. If we look back to discover who are really responsible for this serious want, it must, I think, be laid on the country at large, as represented by the Government, whether Conservative or Liberal. Both parties are

afraid to ask the country for the amount of money requisite to keep army organization up to that state of efficiency in peace-time which will make it immediately ready for war. As Surgeon-Major Evatt shows, it is clearly unfair that the medical or any other department should be blamed for not performing their duties efficiently, when they are not provided with the proper means of doing so. I do not feel inclined to enter into the vexed question of the abolition of the regimental medical system, but I know a great many Officers consider that a great injury has been done to the Army by that step. I confess, as a former Commanding Officer, I was very sorry indeed to see the regimental system completely broken up. My idea of reform is, that when you find a tree not doing quite as well as you wish it, you should not at once cut it down and try to replace it by another, but you should endeavour by changes in the mode of treatment, by pruning here and lopping there, to see whether you really cannot make it grow up strong and healthy. If you start by destroying a system entirely, and by trying to build up a thoroughly new one in its place, you must expect just as has occurred in the Medical Department that it will not work smoothly, there will be frictions and difficulties which it will be difficult to remove. I quite admit that the continuance of the regimental system, as it existed in the Crimea, was an impossibility, and Surgeon-Major Evatt is perfectly right in pointing out how utterly inadequate it was for the great war on which we then entered. I have also reason to believe that the present system, if fairly treated, can be made all that the lecturer desires. But there are difficulties in the way, and these difficulties are connected with expense. I am afraid the existing system, if worked as it ought to be, would prove so expensive, that however we may agree theoretically with what Dr. Evatt has laid down to be essential to its efficiency, however sanguine he may be as to what is likely to be done, many years and many failures may be required before an adequate amount of money is voted to enable that proper training and efficiency to be carried out in peace-time which the lecturer lays so much stress upon. I think the Army is greatly indebted to Surgeon-Major Evatt for having boldly and fearlessly brought forward his indictment against the working of the present system, and for having shown in so clear and powerful a way the very great and serious shortcomings that at present exist in our Army Medical Department. I only trust that his hopes may be realized, and that those in authority who hold the purse-strings, and who have the power to carry out what he has recommended, may see their way to do so, and that the special training for war which is required for the Medical Department may be carried out with as much care and attention to detail as that of the combatant portions of our Army.

Dr. J. W. Taylor: Mr. President, I came to-day in the hope of having some of the past experiences of a great many medical men who had served in different campaigns. I must say, like Lord Chelmsford, I am somewhat disappointed at the apathy (as shown by these scantily filled benches) of our own profession in this particular matter; and I think that the weakness of Surgeon-Major Evatt's scheme consists in the want of combination in the whole of the medical men, not only civil but military, in not making their voices heard, so that the country shall be compelled to expend the necessary money, which hitherto has been withheld from this service. No doubt one of the causes of our weakness is that medical men do not pull together as they should do; they get divided in their opinion, and when that is the case, you cannot wonder that difficulties arise. I gather from Surgeon-Major Evatt's paper that he wishes to have an equalization of force or strength, that is to say, that if the commissariat and transport can have their proper number of Officers and orderlies, so he very fairly puts before you to-day the point that the medical branch of the Service should also have its equalization of Officers and subordinates. There can be no doubt about that as a matter of fairness. Then comes the question of finance; money has to be expended, and we know very well directly an additional grant is asked for there is an outcry, as Lord Chelmsford has said, either by the Conservative or Liberal Government, that so much money is being spent, and that the medical men have done very well so far and must get on as best they can. I have had the honour of being surgeon to a volunteer force for some nineteen years, and have taken very great interest in the formation of ambulance corps and bearer-companies. I think our own was one of the first in the north of England to

carry out that plan; and it arose from a circumstance which took place at a large review of some 12,000 troops, held on Knavesmire, at York, some five years ago. On that occasion all the different battalion surgeons were told that the Army Medical Service would be provided with ambulance conveyances for the removal of any men who should fall out. We were on parade at Knavesmire, which, as you know, is a large open tract of country, with our backs to the sun, after having a hard day's work, and we had not been standing long in that position before in one brigade alone no less than eighteen men fell out, probably from heat and fatigue. There was not a single ambulance, there was not a single stretcher on the ground provided by the Army Medical Department; there was not a single ambulance wagon to convey any one of those men off the ground, and there was not a tree or anything to shelter them. We did the best we could to extemporize shelter by means of muskets and coats and such things as we could get, and then, as we were all marching off the field about one hour afterwards, an old cab was brought on to the ground to represent the Army hospital wagon of the Northern District. I determined from that moment that there should be no accident of that kind happen again to my own battalion, and I set to work at once to form ambulance detachments in my own regiment, and first of all to make myself efficient by passing the examination required by the Army Medical Service, in accordance with the instructions from the War Office; and we now have, not only in my own district, but all round us, growing up ambulance detachments, two men being taken from each company. Now there are considerable difficulties in working this, and it is on that point I want more specially to speak. You are aware that formerly, before battalions were consolidated, we had administrative battalions, and probably in one town or village we should only have one company of men. Now it would be almost impossible to take two men from a company and drill those men, because they do not form a detachment; we must have four men for a detachment. It is impossible to take two men from one village and two men from another, and form them into detachments for the purpose of drill. The result is, the whole of the men in the consolidated battalions have to be taken from that town which possesses the largest number of men. The expenses of working this have to be borne either by the battalion itself, if it can afford it, or by the medical Officer of the battalion who chooses to take that interest in his work. Many battalions are not very rich, and the incentive for work is certainly not very great when the battalion surgeon is encouraged by having to pay something like 35*l.* or 40*l.* out of his own pocket for the equipment of his own ambulance corps. But the grievance does not end there. No sooner do you get into camp than your volunteers, your ambulance bearers, cease to belong to the medical Officer. According to the Volunteer Regulations, every volunteer very properly must make himself efficient as a volunteer in order to obtain the capitation grant, and no sooner does the medical Officer get into camp than his ambulance bearers are taken from him, and they are permitted only by the sanction of the Commanding Officer to march past in the rear of the battalion on the day of inspection. They have no opportunity, save by the permission of the Commanding Officer or Adjutant, to drill, and you can easily imagine that men are very loath to turn out and do more work than is really necessary; and after they have had a hard day's drill in the field, they do not like to turn out and do ambulance drill as well. They say, in addition to that, "We belong to no one, having two sets of duties to perform." Now if we could have a separate ambulance corps, with the men clothed similarly to those of the Army Hospital Corps; to let them have a dress by which they shall be known as bearers, and let them be under the command (of course subject to the Commanding Officer) of the principal medical Officer of the battalion,[1] I am perfectly certain that, with some Government aid, there would be no difficulty whatever in getting up a very large army of willing and efficient bearers throughout the country, from whom could be drafted in any future war men able and willing to go abroad and serve, who have been trained, who have their certificates and their Red Cross badge, and who are quite as able to discharge their duties as those who

[1] At the same time permitting the capitation grant to be given for efficiency as bearers, *instead* of efficiency as marksmen, &c.

have been trained at Aldershot for the Army Hospital Corps. But of course this again means money, and the whole question turns upon finance. I can only speak as far as our Volunteer Service is concerned, but I know that we have very many difficulties to contend with. Medical men do not always feel disposed to be spending money out of their own pockets *cus amore*, but they want to have some recognition of what they do, and to feel that their men, when they have them out with them in camp, shall be of some service. These are difficulties we have to contend with, and I am very glad to have had the opportunity of coming here to-day and hearing the paper which has been read to us, and offering these few remarks to you.

Captain O'Callaghan, late 16th Regiment: I rise, Sir, with considerable diffidence, to make a few remarks on one point in the paper which has just been read. This diffidence arises from my seeing here some more experienced and qualified to speak on the subject than I am. The main object of that paper appears to me to be to contrast the present, or unified, system of the Medical Department with the former, or regimental, system; and in doing this, the former system has, I think, been somewhat hardly dealt with. The defects of the Medical Department, when we took the field in the Crimea, have been clearly laid before us; but some of those defects are to be attributed to our unpreparedness for war, and not to the fact that the system was regimental. We had a vivid description of the surgeon of the 44th, left on the field of the Alma, unassisted and almost alone, to deal with hundreds of wounded Russians; but had Dr. Thompson worn the uniform of the medical staff, instead of that of the 44th, would he have been able to attend to one more Russian? Had he belonged to the medical staff, instead of to a regiment, would that have supplied him with assistants and medical comforts, and with those appliances which were not then provided for the Army? While there is reason to believe that the majority of the Officers of the Army—I may say the vast majority—view with regret the disappearance of the regimental system, and would gladly see it restored, still none of them would advocate going back to the defects which then existed, such as the want of field hospitals, and which were not necessarily involved in the regimental system.

Dr. Farquharson: I do not rise for the purpose of making an attempt to discuss the very interesting, graphic, and eloquent paper which Surgeon-Major Evatt has just read to us, a paper so full of detail that I think we can hardly attempt to discuss it in any proper sense without very careful study and reflection. It may disappoint him that more of us who are here have not taken up as our text the interesting system, perhaps somewhat Utopian, which he has brought before us, but the reason simply is that it is so elaborate and so carefully prepared that we should require to consider it very fully before speaking upon it. All I want to do is to make one or two remarks on the subject which has already been spoken to by my friend Inspector-General Lawson, and others regarding our friend the regimental as opposed to the unification system. No one would want to go back to the old plan which broke down so completely in the Crimea, but this modern unification system has now been on its trial for ten years, and I think we cannot afford altogether to disregard the opinions of the military departments upon its working. If you read the Blue Book issued by Lord Morley's Commission, you will see that almost every Commanding Officer of large camps as well as of regiments was entirely unanimous in saying that the way in which the unification system is now worked is uncomfortable, and indeed often disastrous in its effects, that is to say, that the Officers do not know whom to go to for medical attendance. The Commanding Officer does not know whom to apply to for information about the health of his men, and altogether there is a condition of confusion which might by a little care and arrangement be easily enough removed. I think there can be no doubt that the unification system as now carried out works badly for the medical Officer, because it withdraws him from the possibility of sharing the social advantages which he used to enjoy in former days in connection with his regiment; and, I think, it operates disadvantageously also in a professional sense, because while a certain number of medical Officers are attached to the large hospitals, there are also a certain number who have no connection whatever with the hospitals, and therefore they have no opportunity of seeing or attending any amount of cases in the hospitals. I should have thought it quite possible that there might be some kind of combination of duty by which medical Officers might be attached to regiments for different periods, say for three, four, or five years, and at the same time might have the opportunity of following cases into the hospitals and attending them there, a plan which is well known in rural districts in the case of cottage hospitals, in which medical men outside who send in their cases are enabled to follow them up, and attend them whilst in the hospital. That would keep up the feeling of interest of the medical man in the men under his charge, and would stimulate a mutual interest between the Commanding Officer and the doctor that would work well for the Service at large. I do not see that there would be any friction as has been mentioned between the two classes of medical Officers, those on duty with the regiments and those in the hospitals, and I do not see that another objection which has been put forward, namely, that the medical Officer might not do his duty properly with the regiment and then go on to the hospital, holds good. In the old days when I had the honour of serving in the Guards, we simply did our regimental duties in the morning at 8 o'clock, and having finished those, we then went to the hospital and did our duty there. We then came back to the barracks and did whatever other duty might be waiting for us. In this way our two sorts of duty ran actually together on all fours. Of course all this question means expense, but this as laid down by Lord Morley's Commission would not be very great, and I think in the result would make the Service more attractive to medical Officers. I think if the Army hopes to get the best blood from the medical schools it is necessary to go back in some way to the regimental system, in order that, in a service which is very badly paid, some superior social advantages may be offered to compensate for tolerably hard work and bad pay.

Mr. J. Fuller: I had no ambition, Sir, to swell the category of those who proverbially rush in where angels fear to tread, and I certainly had no intention of addressing this meeting to-day; but perhaps I may be allowed to make a remark upon the concluding paragraphs of Surgeon-Major Evatt's paper. One or two volunteers have already spoken on the subject, and I remember when I myself was an active Officer of volunteers, I used to think it was an absurdity to call our force an army, seeing that we had no regular medical department and no transport service, a position which has been so well described by Dr. Taylor; but I confess that I afterwards saw reason to change my opinion irrespective of the question of expense that Commanding Officers and others connected with volunteers already bear. I thought that as we were never to be called out of the country there was no necessity for an expensive medical department or for an expensive transport system, for should we unfortunately be engaged in defending our country we should be backed up by all the civil hospitals and nursing establishments, and by all such societies as the Red Cross, and the St. John's Ambulance Association, and therefore that a complete medical department was not necessary. Commanding Officers of volunteers are always very much disinclined to lose even a single file on parade, and there were many other reasons against a distinct department. But recent events have shown that the Army Medical Department is in need of a supplement in time of war. Surgeon-Major Evatt has referred to a new ambulance organization that has been started in some of the London hospitals, composed of medical students. The instruction that these gentlemen are so willingly undergoing at the present moment is of the most valuable description, whether their future career be civil or military. At the same time, they are much too valuable to be kept in the position of sick-bearers, and we must add to that organization, if it is to be of any real advantage, a large class of useful men of lower social degree. I have not the slightest doubt from my own experience that we should be able in a very short time to find plenty of men who would readily join those gentlemen, and thus make a really important organization to supplement the Army Medical Department in case of war. I do hope that this new association will very soon have the recognition of the War Office and the support of the Army Medical Department; and if the same capitation grant be given to the members as is allowed to volunteers generally, and if the hope be held out to them that in case of war their services will be utilized, and they will receive pay, then, I think, this much needed supplement will readily be found should it be wanted.

The CHAIRMAN: The time has so far advanced that I will not delay you by many observations. I should have tried to have made some remarks on many of the suggestions that have been introduced into Surgeon-Major Evatt's paper. Probably the most important are the additions which he proposes to make to the field hospitals, and the manner in which he proposes to obtain reserves in time of war for the bearer-companies and for the field hospitals. I hardly think that Dr. Evatt has sufficiently referred to all that has been done on these subjects to which a very great deal of consideration has been given. They were very fully discussed in the report which was furnished by Colonel Brackenbury, Major Kemmis, and myself on the organization of the medical services of different Continental armies as illustrated by the appliances at the Brussels Sanitary Exhibition of 1876, and by the Committee the formation of which that Report subsequently led to, that organized the bearer-companies and field hospitals of which the constitution and composition were embodied and described in the Army Medical Regulations of 1878. I still think that the recommendations of that Committee, so far as regards obtaining reserves for the bearers of the bearer-companies, will be found sufficiently practical and efficient. I will, with your permission, read a short extract from that Report respecting the tables of the bearer-companies and field hospitals. It is the following:—"The tables of the bearer-companies and field hospitals show a large number of men as hospital attendants drawn from reserves. The Army Hospital Corps at present cannot supply such a reserve. As these men are merely required for fatigue duties, as distinguished from skilled attendants on the sick, the Committee recommend that a proportion of the Army Hospital Corps should be enlisted for as short a service with their companies as is compatible with a due instruction in these duties, and be then for the remainder of their engagement passed into the First Class Army Reserve. Until the corps is in a position to supplement its companies by such reserves they consider it desirable that steps should be taken for detailing the number necessary for one or two army corps from the militia reserves." It is a very important matter, and I therefore think it well to allude to it, that we should have exact notions regarding the difference between reserve men qualified to act as bearers, and to do the fatigue duties of bearer-companies and field hospitals, and reserve men, who are qualified to act as nurses in the wards of the hospitals, to take the place of the hospital orderlies when these latter are removed from the hospitals at home to proceed on foreign service and do the duties which they are called upon to perform in time of war. There will be no difficulty, I anticipate, in getting sufficient reserve men who can be rendered available for doing hospital fatigue duties and the duties of bearers, acquaintance with which can readily be acquired in from three to four weeks, but I do not anticipate that the plan proposed of a militia hospital corps reserve to provide hospital attendants can be carried into execution without great difficulty; I mean such attendants as are competent to take the place of the regular Army Hospital Corps men for nursing the sick when the ordinary establishments have to be increased to what is necessary for meeting the wants of a time of war. This reserve must be composed of trained and sufficiently experienced men got from the ranks of the Army Hospital Corps itself. We had some experience on this point at Netley on the occurrence of the Egyptian campaign when all the hospital attendants were removed from Netley in order to make up the establishment for the field hospitals and bearer-companies proceeding to Egypt. At first we had a number of men sent from the ranks of the regiments at Portsmouth to take their places. Subsequently we had men from the reserves dressed as Army Hospital Corps men, and with a limited amount of training as bearers, who took the place of the regimental men in the wards. The surgeons much preferred the regimental men who came without knowing anything of the duties of Army Hospital Corps men, but who for the most part were disciplined, obedient, and tractable, and who in many instances took a great deal of interest in the ward work, to the reserve men who were sent to us as Army Hospital Corps men after three or four weeks' training in bearer duties at Aldershot. We had the greatest difficulty with these latter men, owing to their bad drunken habits and apparent dislike to the ward duties. Had they been sent as fatigue men to do fatigue duties, or even to act as bearers after the training they had had for a few weeks at Aldershot, they would no doubt have done those

duties well under proper control; but as ward attendants they were absolutely less useful than the regimental men from the ranks, who for the most part were willing to learn and to do what they could to help in nursing the sick. With regard to the increment that Dr. Evatt proposes to the field hospitals, I cannot look upon this as quite such an easy thing as he describes; it seems to me, on the contrary, a very serious and difficult matter. Dr. Evatt is proposing to increase the establishment nearly two-thirds over the present establishment in each field hospital. Multiply that by twenty-five, the number of field hospitals for one army corps, and see what a vast increase of men it is that is asked for to be trained, rationed, looked after, and paid. And it is also a matter for grave consideration whether such an increment as this can be held to be necessary. Some increase of establishment as regards attendants is, I believe, admitted to be necessary by all, but when comparing a British hospital with an Indian hospital, we must always remember that the large establishment of hospital servants in India is partly due to caste influences, just as our own private establishments of servants in India have to be very largely increased in number from the same cause. Again, with regard to some of the particular servants mentioned, those for the conservancy arrangements, the water supply, the washing, and so on, we must recollect that the Commissariat and Transport Department is at present responsible for executing these duties in the field. We can hardly expect, therefore, to have independently a sufficient establishment to be able to do all these things entirely ourselves. Practically in time of war field hospitals are generally supplemented by a certain number of men to do various fatigue duties. Some of them were so assisted in Egypt, I believe a certain number of men, Egyptian prisoners, muleteers, and others, being sent to the hospitals for service in various capacities. It has always been understood that the hospitals are to have the advantage of men extra to the fixed establishments being sent to them when needed to do fatigue duties. That we can obtain a fixed field hospital establishment as is represented in the table before us under present circumstances seems to me very problematical. But, however, without entering more fully on these and some other topics that might be enlarged upon, I may say that personally I have the fullest reliance, and I feel sure everyone at this meeting may equally have full reliance, that all the topics which Dr. Evatt has so eloquently brought before us to-day will be very thoroughly considered by the responsible head of the Army Medical Department. We have at the head of our Service an Officer of great sagacity, who has had for many years to consider and to carry out practically the organization of our war hospital establishments, not only in this country, but also in India, and who, as a member of Lord Morley's Committee, must have had very many of the subjects discussed to-day already brought under his consideration. He has also around him a staff of very able practical men to assist him with advice. We may infer also, from the exhaustive inquiries that have been instituted under the direction of the War Department, that the authorities there are alive to the necessity of continuing to add to the efficiency of the medical service, and that all will be done by them, as well as by the military authorities (who, of course, have the welfare of the sick and wounded troops just as much at heart as we have, whatever different views may be entertained as to the manner in which this is to be carried out), to place our field hospital establishments on as complete and efficient a basis as possible. From all these circumstances together we may rest confident that the important matters brought before us by Dr. Evatt, as well as the views expressed by the various Officers and others who have favoured us with their opinions to-day, will be taken into very full consideration, and may now be safely left in the hands of the authorities who alone have the power to bring them to a practical issue.

Surgeon-Major EVATT, in replying, said: I have but a few words to say in reply. As to Surgeon-General Lawson's allusion to the fact that general hospitals existed in our old wars, I am of course aware of that. But what were those hospitals? They were completely without organization, and were in the last century mere charnel-houses. You can call them nothing else; for without medical staff and trained subordinates you cannot have real efficiency. As to the volunteer service, I feel certain we have a large field there, from whence, if we try, we can obtain large war help; but we need to train them in peace for war, and not to wait until war

comes, to try and rush it, and send out untrained men. As to the militia, one must remember that any militiamen sent into the hospitals for service during the recent Egyptian War were completely untrained; they were taken out of the ranks of the militia reserve, and sent into the hospitals without any training whatever. To judge of militia help by such men would be quite wrong; and it is to avoid such confusion that I propose to train regularly a militia reserve for our use in peace, and not wait until war comes, and then rush them into our hospitals completely untrained. I want to see a regular Militia Hospital Corps called out annually and trained with us in the hospitals, instead of being kept at infantry drill in the barracks. We need such a body of men to work our home hospitals in war time as well as to furnish the coarser aid in the war hospitals. During war time we are put to great straits at home for men for our hospitals, and we have to withdraw combatant soldiers from their drills and their regular work to assist us. This acts injuriously in two ways—the men are inefficient as nurses, and they are taken away from their own special work outside. As to the question of water-carriers being needed in India on account of caste, I do not think that this is the case. If I had no water-pipes laid on to my house at Woolwich, I, too, in England should need a water-man to carry water for the domestic service of my house. In India we have no water supply laid on, and hence, caste or no caste, we need watermen. India is a hundred years behind London in civilization, and war is practically a return to the primitive savagery of the world when all the subsidiary services of a house have to be done by human agency. Sewage is removed in England by drains; in war we need human agency. A dhobie exists in India to wash clothes, but practically we have dhobies in England, only they work in laundries organized for the service of many families, and hence we do not see them so prominently before us. Nevertheless they do exist; and as in war you have no laundries, you must go back to the primitive washerman of an earlier time. It is in no sense a caste question, it is simply a return to primitive conditions. As regards the aiming at efficiency by the Director-General and by the whole of the War Office officials of every class, no one questions for a moment how ardently they hope to obtain complete war efficiency. For one hundred years the doctors have written, and spoken, and struggled for complete war efficiency, but it really is not possible to obtain it without educating the public as to what is needed. However strong may be the desire of the Director-General or the Commander-in-Chief to achieve everything we need for us, it will not be possible to obtain the money needed for these things unless public opinion is worked up to the standard that will make the House of Commons vote what is needed. We need as it were a band of missionaries of the Red Cross to go out and preach a new crusade, and teach the people what we need. When they know what we want, then, and only then, will they give it to us. The people of England and the tax-payers talk about humanity; let them, however, do their share and pay for humanity also.

The CHAIRMAN: I have now the very pleasant duty of asking you to express your thanks to Surgeon-Major Evatt for his very interesting and suggestive lecture, which thanks I am sure you will fully agree with me he richly deserves.

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ARMY MEDICAL ORGANISATION.

THE MEDICAL DEPARTMENT

OF AN

English Army Corps in the Field.

WITH PLAN.

A CATECHISM

FOR THE USE OF THE VOLUNTEER MEDICAL SERVICE.

BY

SURGEON-MAJOR G. J. H. EVATT, M.D.

ARMY MEDICAL DEPARTMENT.

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28.

ARMY MEDICAL ORGANISATION.

By Surgeon-Major G. J. H. Evatt, M.D., A.M.D.

Q. What is an English Army Corps?—A. An English Army Corps is the largest organised body existing in the English service. It consists of 36,045 men, 90 guns, and 12,939 horses. An army would consist of several Army Corps, but the unit by which a great army is organised is the Army Corps. Practically an English army in the field has rarely exceeded the strength of one Army Corps.

Q. What are its component parts?—A. It consists of three Divisions, a Cavalry Brigade, and the "Corps Troops," consisting mainly of Corps Artillery and Corps Engineers. It is commanded by a Lieut.-General with a suitable staff.

Q. What is a division?—A. A Division consists of two Infantry Brigades, one regiment of Cavalry for escort and outpost duties, one regiment of Light Infantry or Rifles, three batteries of Artillery, and one company of Engineers, with Commissariat, Transport, Medical, Veterinary, Police, and Chaplain's departments attached. It is commanded by a Major-General with a suitable staff.

Q. What is a Brigade?—A Brigade consists, as a rule, of three Battalions, and a Cavalry Brigade has in addition a battery of Horse Artillery with it. It may be commanded by a Brigadier-General or a Major-General.

Q. What is the Corps Artillery?—A. That body of massed Artillery not detailed to Brigades or Divisions, but serving under the direct command of the General of the Army Corps, and available for combined action in a body.

Q. What are the Military Units?—A. In Infantry, the Battalion; in Cavalry, the Squadron, generally massed in a regiment; in Artillery, the Battery; in Engineers, the Company; in Commissariat and Transport, the Company; in the Medical Department, the "Bearer Company" and the "Field Hospital."

Q. What are the Medical arrangements of an Army Corps?—A. First there is the Regimental aid, consisting of a Medical Officer with each battalion, regiment, battery of Artillery, and company of Engineers. In each regiment there are two men per company trained as regimental stretcher bearers, who act under the orders of the regimental surgeon in carrying the regimental wounded off the field. These men are the *Regimental* Bearer *Detachment*, and are on no account to be confounded with the Bearer Company.

Q. Where are such detachments now generally to be seen?—A. With most Volunteer Infantry regiments. These men wear the regimental uniform, are an integral part of the regiment, and

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have nothing to do in any way with the "Bearer Company," which is a medical unit for the whole division.

Q. What are the other medical arrangements?—A. The Bearer Companies, the Field Hospitals, the Hospital Ships, and the great Receiving Hospitals in England.

Q. What is a Bearer Company?—A. It is a Medical Unit, made up of eight medical officers, two quartermasters, and a total of 213 Army Hospital Corps men, transport drivers, and officers' servants, two surgery waggons, two equipment waggons, two water carts, 33 ambulance waggons, and 86 horses. It is capable of breaking up into two half companies, each complete in every detail for aiding the wounded on the field. It is entirely non-regimental, the men being all Army Hospital Corps men.

Q. What is the function of a Bearer Company?—A. It is a unit completely equipped to form a dressing station, where, with operating tables, shelter tents, a large collection of drugs and instruments, the means of preparing soup and food for the wounded, and regularly trained ambulance bearers, the wounded can be regularly collected and treated. The regimental surgeons afford what rapid aid they can to such of their wounded as fall near them, or are borne to them by their own regimental bearers; but when this temporary and urgent aid is given, the wounded man is handed over to the ambulance waggons and bearers of the Bearer Company to be more fully examined, and to receive fuller help at the dressing station in the rear. In addition, the great numbers of wounded, who in a large action would overwhelm the regimental bearers and doctors, are carried away by the divisional help called the "Bearer Company."

Q. But should not the regimental Surgeon have all such means of help with his own regiment?—A. It would be impossible for the twelve distinct units of a single division to go into the field, each equipped medically with all the instruments, medicines, cooking appliances, ambulances, and general aid needed for the wounded. Even if such aid could be carried, individual regiments exposed to heavy fire would be overwhelmed with wounded, while the medical staff of neighbouring battalions could not be transferred for medical aid. It accordingly becomes necessary to develop a unit for the whole division, capable, it is true, of breaking into two distinct groups, but giving its services not to individual battalions, but to the division as a whole.

Q. What further function does the Bearer Company perform?—A. It being a complete unit, with its own transport and staff, it can take care of the whole of the divisional wounded on the field until the arrival of the field hospital on the battle field, when, having handed over its wounded, it again sets off after the advancing army, and resumes its post with its division. Great delay often occurs in the more heavily equipped and slow moving Field Hospital making its way through the crowded roads in the rear of a general action, but the presence of the Bearer Company on the field ensures good care of the wounded pending the arrival of the hospitals.

Q. Whence have we copied the Bearer Company unit?—A. From the German army, which was one of the first to organise such a distinct unit.

Q. Would such companies have been of use in the English service in the Crimean campaign?—A. Yes; had such companies existed at the Alma, the invading army, free from the delay that occurred from the necessity of embarking the wounded under very defective regimental arrangements, could have advanced rapidly after the defeated enemy, and perhaps entered Sevastopol with the Russians, and ended the war at a blow.

Q. How are the Bearer Companies trained?—A. The men are disciplined at first as Infantry soldiers in company and battalion drill, and then a technical drill and lectures are given to them, teaching them how to stop bleeding, how to afford first aid, how to prepare a dressing station, how to prepare the soups and stimulants needed on the field, how to carry wounded on stretchers, how to load them into waggons, and all the detail of attention to wounded men. They are equipped with a "surgical haversac" containing bandages, splints, and restoratives, with the necessary dressing instruments.

Q. On what system is all this based?—A. Mainly on the German system, now copied into most Continental armies. It is absolutely essential, to secure efficient and uniform work, that a regular drill should be laid down, and this is now carried out at Aldershot in training the Hospital Corps.

Q. How are the Bearer Companies of an Army Corps posted?—A. There are four with each Army Corps, being one complete Bearer Company with each Division, and the fourth company is divided into two half Bearer Companies, one half being with the Cavalry Brigade and the other half with the "Corps Troops."

Q. Is this proportion of four companies to an Army Corps sufficient?—A. No; the need of a half company at the base of operations is everywhere admitted, and two or more companies are needed for convoy duties of sick and wounded men on the line of communications.

Q. What is a Field Hospital?—A. A Field Hospital is a medical unit for affording complete medical aid to 200 wounded men. It is organised with seven medical officers and a proportion of quartermasters and men of the Army Hospital Corps. It is called a "movable" Field Hospital when it has transport, and is able to move. It is called a "stationary" Field Hospital when it is not supplied with transport, but merely carried to a place and there opened. It is called a "reserve" Field Hospital when it is placed with an Army Corps with all its equipment, staff, and nursing orderlies complete, but not pitched for patients, but waiting orders. It is called a hospital on the line of communications when it is pitched on the line of road by which the army has marched to the front. It is called a "base" hospital when it is placed at the base of operations, by which the army draws its supplies from England, or sends home its wounded men to England; and finally, when the same staff of officers and men is embarked on a suitable ship fitted up for the care of wounded men, it becomes a hospital ship, or floating Field

Hospital, which is utilized either for treating cases which will be sent back to the army when recovered, or for the carriage of bad cases sent back to England for final disposal there.

Q. How many Field Hospitals has an English Army Corps?—A. Twenty-five 200-bed Field Hospitals, of which twelve are with the fighting line in the front, and thirteen are posted along the line of communications and at the base of operations, in our case generally on the sea coast of the enemy's country.

Q. Describe the arrangements of the Field Hospitals, with the fighting portion of the army in front.—A. Two movable Field Hospitals, each for 200 wounded, and equipped with transport, are attached to each division, and march with it everywhere. They are under the orders of the P.M.O. of the Division. The other six hospitals of the fighting line are in reserve, and are at the disposal of the Surgeon-General of the Army Corps, who can move them up to relieve any of the divisional hospitals which become full of wounded, and not able to march forward.

Q. What is the object of having Field Hospitals instead of regimental hospitals?—A. It would be impossible nowadays to have twelve different hospitals with the twelve units of a single division, as such a number of hospitals would encumber the front line of the advancing army. Further, if any regiment or battery was exposed to a heavy fire, its hospital would be overworked, while all the other eleven hospitals of the division might be idle. By this divisional system, as opposed to the regimental system, the work is more equalised for the Medical Corps, and a degree of comfort in the way of field equipment can be secured which was not possible under the old system.

Q. Mention the gravest objection to the system of regimental hospitals in the field?—A. Even if these hospitals were only moderately filled with wounded after an action, if the army marched on, its wounded, which must necessarily be left behind, had no proper hospitals to be handed over to; and it would be impossible to have twelve different hospitals left behind after each division had marched on. In consequence of this constant inconvenience the German service abolished its regimental hospitals, and grouped the doctors of the regiments, save only one with each battalion, into field hospitals—units with a complete staff of their own, able to halt or to march as needed.

Q. What is the strength of an English Field Hospital?—A. An English Field Hospital for 200 sick has seven Medical Officers and a Quartermaster; and for the other duties of nursing, compounding, store issuing, cooking, it has only 37 Army Hospital Corps men who are thus employed:—Steward, 1; Assistant-Steward, 1; Wardmasters, 2; Compounders, 2; Storekeepers, 2; Clerk, 1; Cooks, 6; Nursing Orderlies, including two Corporals, 22: total, 37.

Q. Is this staff sufficient for nursing 200 sick?—A. Yes; in a fully equipped and well provided English Home Peace Hospital it would probably do the work. In these the cases are sometimes slight, and do not need special attention, and besides this water is laid on by pipes, sewage is carried away by drains, washing done by a special laundry establishment, letters are carried and delivered by a postman, but in war all these civilised aids disappear. War is a return to primitive savageness, and with that return we lose the ordinary aids to domestic comfort. Hence the 37 men who are enough to work a civilized peace Hospital in England are quite unable to work such a hospital in the field in war time.

Q. What is the strength of an Indian Field Hospital for the same number of 200 wounded?—A. While the English Field Hospital has only 37 subordinates for 200 sick, the Indian Hospital has 122 at least for the same number. The difference arises mainly in the extra staff for watermen—viz., 15, sanitary police, of whom there are 23; and likewise in extra cooks and dispensary servants, and also it has its own washermen.

Q. What then is needed to make an English Field Hospital ready for field work?—A. A very large and considerable addition to its peace strength to provide for conservancy, water carrying, clothes-washing, letter-carrying, and clerical work. At least 93 men are needed in place of the existing 37, and they would be thus employed:—Compounders, 4; Wardmasters, 4; Cooks, 8; Watermen, 8; Sanitary Police, 8; Washermen, 8; Nursing Orderlies (1 per 5 sick), 40; Clerks, 4; Storekeepers, 5; Messengers, 4: total, 93.

Q. Are washermen, watermen, and conservancy men important in a Field Hospital?—A. Yes, absolutely all-important. The conservancy men are far more important than the compounders, as without such men sanitary evils of enormous influence occur. The washing of the soiled clothes is also of very great importance as a sanitary measure, and water supply is of paramount importance. The English Field Hospital makes no provision whatever for these services, and hence the difficulty of making it work in war.

Q. What is then needed to help the working of the Hospitals in the field?—A. A large and fairly trained reserve capable of being called up when war breaks out.

Q. How should this be obtained?—A. By falling back on the Militia and Volunteer Services. A large body, say 1,500 Militia Hospital Corps men should be embodied from the Militia Reserve, dressed in Hospital Corps uniform, and called out each year for training in ambulance and nursing duties. These men would when war occurred be available at once for the Home Army Hospitals, thus freeing the Regular Hospital Corps for war, and gradually filling up the loss of Hospital Corps men in the field. They would also furnish the Watermen, Messengers, and Sanitary Police, and the Washermen of the War Hospitals. They would be very economical, as they would be paid only for five or six weeks per year, with a retaining fee, and would be called out for war. It seems strange that while we have Artillery, Engineer, and Infantry Militia, we have no

Medical Militia, yet no service needs a larger war reserve than the medical service.

Q. What other force could give large aid in war to the Regular Army?—A. The Volunteer Service.

Q. Before proceeding further, state if the Volunteer Army, measured by modern standards, is efficient from a medical point of view?—A. No; it is quite inefficient. It has simply the regimental aid supplemented in some cases by regimental bearers, but any medical department properly so called does not exist.

Q. When in an action a Volunteer surgeon has dressed his wounded man, where would the wounded man be sent to for operative aid and to receive food and stimulants?—A. Nobody knows. No organization exists in the Volunteer service corresponding to the divisional bearer company. This want is fatal to the medical efficiency of the Volunteer service. It has likewise no Field Hospitals, nor are its medical officers trained in the fielding, pitching, organization, or working of such hospitals.

Q. What is the remedy for this condition of affairs?—A. To organize for the Volunteer service a Volunteer Medical Corps, corresponding to the Army Hospital Corps and wearing a similar uniform. This corps would be organised by bearer companies in each large town, or in each county, and would receive the capitation allowance like combatant Volunteers. It would in no wise interfere with the existing regimental bearers or surgeons, but would be a further development of the ambulance movement. It would be officered by Volunteer Surgeons of a Volunteer Medical Department, of which the whole Volunteer Medical Service would form a part, an officer serving with a regiment or with the Medical Corps, as suited his convenience.

Q. What further use would such a Volunteer service be?—A. Besides completely equipping the medical service of the Volunteer army for war, it is probable that many of the trained Volunteers would be glad to go to a campaign as Volunteers for a few months, and would thus form a reserve of great value for the Regular Medical Service, on the lines of the Postal Corps embodied from the Post Office Volunteers. It would also teach the country and the civil profession the meaning of ambulance work.

Q. Where would such a movement best begin?—A. In the medical schools throughout the country. The young men there would embody themselves into a Volunteer Medical Battalion, with a company in each Metropolitan school. They would be dressed like Hospital Corps men, receive a capitation grant, and be trained as a pastime in organizing and working bearer companies and field hospitals. Thus trained as privates and sergeants while students, they would be perfectly able to act as either Regimental or Medical Corps Volunteer Surgeons on getting their diplomas, and so would be fitted to command ambulance companies or Volunteer Field Hospitals in their counties or villages.

Q. What other points need notice in medical organization?—A. The question of aid to the principal medical officers of Divisions in their clerical work is very important. The handing over of a definite amount of transport to the medical service is very important. The number of the bearer companies with an Army Corps, the strength of the *personnel* of a Field Hospital all need consideration. The subject of the amalgamation of the Army Medical Department and the Army Hospital Corps into a single Medical Corps is also important as to its bearing on efficiency and *esprit de corps*. The allotment of a section of the Commissariat Corps to ration the Base Hospitals and the Divisional Field Hospitals is also of much importance.

Q. Who are the directing medical officers of the medical service of an Army Corps?—A. There is a Surgeon-General controlling the whole Medical service, from the Battalion or Battery Surgeon in the front, to the Hospital Ship at the base. He has a secretary and other officers to assist him in his work. Each Division has also a P.M.O. of Deputy Surgeon-General's rank. There is also a P.M.O. of the lines of communication, who controls the 13 Hospitals on these lines, under the general direction of the Surgeon-General at Head Quarters, and finally there is a P.M.O. at the base with officers to assist him in the sub-departments of his work. They are all subordinate to the Surgeon-General of the Army Corps, who is with the General Commanding the Army-corps.

Q. Trace the course of a wounded soldier from the time he is hit by a bullet in the field until he reaches Netley?—A. If he is hit while under the eye of the Battalion Surgeon, that officer gives him a first rapid dressing, marks (on a ticket) the nature of his wound, and sends him to the rear by the regimental bearers. Here he meets the bearers and ambulance waggons of the Bearer Company, and is carried to the dressing station, examined by the Surgeons there, and if necessary operated upon, receives soup, wine, or other needful stimulants, and is sent away by the ambulance waggons to the Field Hospitals of the Division, probably one or two miles in the rear. Here he remains, and may if slightly hit rapidly recover and join his corps. If it be a serious case, he rests until fit to be sent back to the base, and he then travels stage by stage from hospital to hospital along the line of communication, until he reaches the Base Hospital. Scuh a body of wounded men returning to the base is called a "Sick Convoy." Arrived at the Base Hospital he is finally disposed of either by recovery and return to his corps, or by invaliding to England, where he is conveyed by one of the hospital ships, and finally finds himself at Netley or other home hospital. The system as a system is easily understood; it is the only possible way of dealing with the sick and wounded of an army. It needs for its working, men, materiel, and transport, with discipline and training.

Q. Working on the lines laid down in this paper, say what would take place in England on the outbreak of a war?—A. When the War Minister had decided with his Military Advisers on the strength of the Army, say one or two Army-corps, the

Director-General would be ordered to mobilize the Medical Corps. If it was one Army Corps twenty-five Field Hospitals would be needed, and four or more probably eight Bearer Companies. He should simply have to telegraph to the P.M.O.'s of districts the word "Mobilize." At once the Regular Army Hospital Corps, and the Regular Army Surgeons would be organized locally into the nucleus of a Field Hospital. The district Army Reserve men of the Army Hospital Corps would be called out and posted to the Field Hospital. The equipment kept locally, and not at Woolwich, would be handed over to them, the Militia Hospital Corps would be called out, and the Militia Reserve posted to the Field Hospital to complete it with war strength of, say 93 men. The Militia Hospital Corps would take over the nursing duties of the Home Garrison Hospital, the Volunteer Medical Corps would be called on for Volunteers for the Hospitals and Bearer Companies in the Field. At Aldershot, the Curragh and Woolwich the Bearer Companies would be organized and equipped. The Field Hospitals with their officers, men, stores, equipment waggons and transport, would be embarked in transports as military complete units, ready to be disembarked on the enemy's shore. This disembarkation as a complete unit is most important.

Q. Now sketch out the course of the campaign.—A. The Army having landed without opposition, the two or three Hospitals constituting the Base Hospital are disembarked and opened at once either in tents or suitable buildings. The Army advances into the enemy's country, and the six Field Hospitals with the divisions march with it as also the Bearer Companies. In the meantime the other Hospitals are disembarked and got ready at the base, and a certain number of the Reserve Hospitals move up after the Army. A battle is fought 40 miles inland, and the wounded are collected in the six Field Hospitals which advanced with the army. These Hospitals being filled halt at the battle-field, and their place is taken by six of the Reserve Hospitals already prepared at the base and in the rear of the army. The army still advances again, fights, and again leaves its wounded behind on the field in the Hospitals of the Army Corps. In the meantime the six Hospitals first filled have evacuated their sick in the Base Hospitals, and are again ready to advance after the army leaving one of the six Hospitals as a Hospital on the line of communication, and so on during the campaign. The sick at the base recover and rejoin their Corps, or break down entirely and return to England by the Hospital ships.

In conclusion it is necessary to remember that the system is new, and not understood by the general public. It is absolutely essential for the education of public opinion that the civil medical profession should understand the aims and objects of the Army Surgeon, so that the public can be taught what is needed. The Volunteer Medical Service can copy this system, and so teach the people.

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TField Hospitals, constituting the Base Hos

T Woolwich, &c., with sick and wounded.

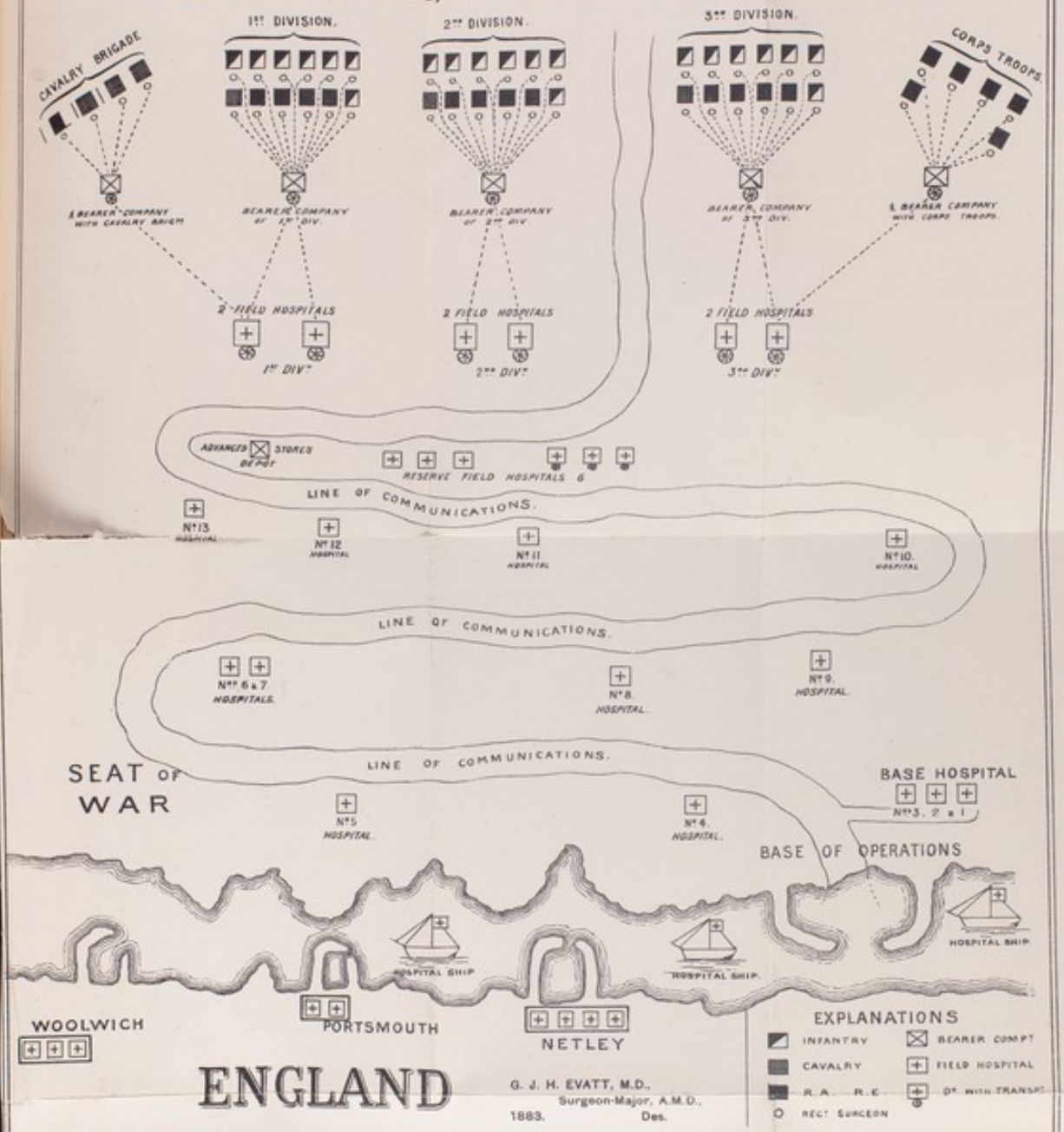
Issued with

TWO SHILLINGS.

28.

Plan

OF THE MEDICAL ARRANGEMENTS OF AN ENGLISH ARMY CORPS. STRENGTH— 36,000 MEN, 12,900 HORSES, 90 GUNS, 280 CARTS, AND 1153 WAGGONS.



G. J. H. EVATT, M.D.,
Surgeon-Major, A.M.D.,
1883. Des.

DESCRIPTION OF DIAGRAM.

This diagram shows every individual Battalion and Battery in an Army Corps, as also the number of units in each Division.

In the rear of each unit is the Battalion, Battery, or Regimental Surgeon.

The dotted lines show the path of the wounded to the *Divisional* Bearer Companies, which must not be confounded with the *Regimental* Bearers working under the Battalion Surgeons.

Behind the Bearer Companies are the two Field Hospitals of each Division.

Massed in their rear, on the road leading to the Army, are the six Reserve Hospitals of the Army Corps, not as yet posted to Divisions.

The winding road is the Line of Communications, which may be 100 or 200 miles long, and which extends from the Base of operations to the Army in Front. Along it are placed at the various *Etappen* posts the 13 Field Hospitals of the Line of Communications.

The winding road is so drawn to save paper. At the Base are grouped three or more Field Hospitals, constituting the Base Hospital.

The ships are the Hospital Ships travelling from the Base to Netley, Portsmouth, Woolwich, &c., with sick and wounded.

Issued with the January Number of the Midland Medical Miscellany.

ISSUED BY AUTHORITY.

INTERNATIONAL HEALTH EXHIBITION

HANDBOOKS

Ambulance Organization, Equipment, and Transport.

BY

Surgeon-Major G. J. H. EVATT, M.D.,

ARMY MEDICAL DEPARTMENT.

ILLUSTRATED.

LONDON

WILLIAM CLOWES & SONS, LIMITED

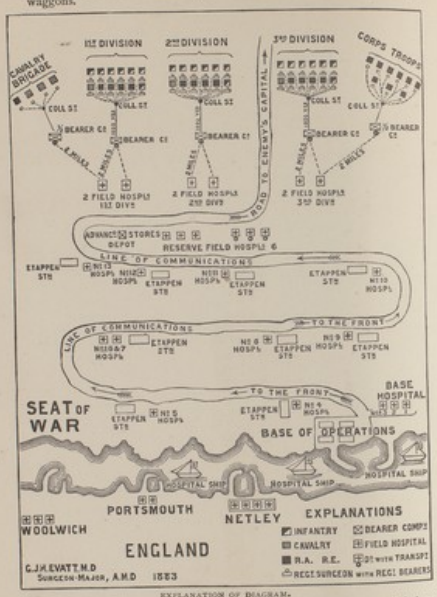
INTERNATIONAL HEALTH EXHIBITION

AND 13 CHARING CROSS, S.W.

1884.

TWO SHILLINGS.

PLAN OF THE AMBULANCE ARRANGEMENTS OF AN ENGLISH ARMY CORPS: STRENGTH, 36,000 men, 12,900 horses, 90 guns, 1153 waggons.



EXPLANATION OF DIAGRAM.

This Diagram shows each individual Battery, Battalion or Regiment in an English Army Corps, and also the number of units in each Division and Brigade. In the rear of each unit is the Regimental, Battalion, or Battery Surgeon, with his Regimental Ambulance detachment.

The dotted lines show the path of the wounded, viâ the "collecting stations," to the Bearer Companies of each division. Do not confound these with the Regimental Bearers working under the Regimental Surgeons.

Behind the Bearer Companies are the two Field Hospitals of each Division. Massed in their rear on the road leading to the Army are the six reserve Field Hospitals of the Army Corps, not as yet posted to Divisions.

The winding road is the Line of Communications, which may be 100 to 200 miles in length, and which extends from the Base of Operations to the Army in the Front. Along it are placed at the various Etappen, or Halting-stages of the Army, the thirteen Field Hospitals of the Line of Communications.

The winding road is so drawn to save paper.

At the Base of Operations are grouped three or more Field Hospitals constituting the Base Hospital.

The ships are the Hospital-ships which convey the sick and wounded from the Base Hospital to the English Hospitals at Netley, Portsmouth, Woolwich, &c.

International Health Exhibition,
LONDON, 1884.

AMBULANCE ORGANIZATION,
EQUIPMENT, AND TRANSPORT.

BY

SURGEON-MAJOR G. J. H. EVATT, M.D.,
ARMY MEDICAL DEPARTMENT.

ENGLISH AMBULANCE SOLDIER.

LONDON:
WILLIAM CLOWES AND SONS, LIMITED,
INTERNATIONAL HEALTH EXHIBITION,
AND 13 CHARING CROSS, S.W.
1884.

LONDON:
PRINTED BY WILLIAM CLOWES AND SONS, LIMITED,
STAMFORD STREET AND CHARING CROSS.

PREFACE.

THIS primer or elementary handbook of Ambulance Organization, Equipment, and Transport, is written for the use of the casual visitor to the International Health Exhibition of 1884 who, entering the building quite ignorant of Ambulance aims and objects, desires to get a general, but elementary idea of the work.

There is nothing novel in these pages, and the specialist will not learn anything from them. They are simply cullings and extracts from the great writers' works on the subject.

I desire to offer my heartiest thanks to those who have aided me in this work. Foremost of all I thank Surgeon-General Longmore, C.B., the Professor of Military Surgery at Netley, for his extreme courtesy and kindness in allowing me the free use of the plates in his exhaustive special works on "The Transport of Sick and Wounded Troops," and on "Gunshot Injuries." Where the woodcuts were too large for the pages, I have had them copied by his permission.

Inspector-General Macdonald of the Royal Navy has also, in the most liberal manner, allowed me the use of his woodcuts and manuscript from his well-known work on "Naval Hygiene."

Sir John Watt Reid, K.C.B., the Medical Inspector-General of the Navy, has also been particularly kind in granting me the use of plans, &c., for which I beg to thank him.

Mr. John Furley, the well-known ambulance worker of England, has also been very good in giving me his valuable aid.

Baron Mundy of Vienna, the leading ambulance authority in Europe, has furnished me in the most liberal manner with copies of his detailed work on "Railway Ambulance Systems," of which I have fully availed myself.

Ober Stabs Arzt Starkè, of the Imperial German Army, has also been very kind in giving me information, and I have utilised several of his woodcuts from his elementary ambulance work.

Mr. John Collings, who has engraved several woodcuts for this primer, is also entitled to my thanks for his good work and his many useful suggestions.

G. J. H. EVATT, M.D., *Surgeon-Major,*
Army Medical Department.

ROYAL MILITARY ACADEMY, WOOLWICH,
May, 1884.

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CHAPTER I.

INTRODUCTORY.

I PROPOSE in the following pages to deal in a simple and entirely popular manner with the highly interesting subject of Ambulance Organization, Equipment and Transport.

I propose to treat the whole subject, whether as regards its application to the naval and military forces of the country for war purposes, or to the far larger needs of the civil population for the aid of those suffering from sickness or accident in ordinary every-day life, altogether from a popular standpoint, and to deal with the subjects in such a manner that the chance visitor to the Health Exhibition may be able to form some idea, however elementary, of what ambulance matters mean.

The specialist in such subjects will find in these pages little that is novel. The pamphlet is entirely a compilation, and very few lines indeed will be original.

In dealing in this primer with so large a subject it will be seen that only a very brief notice can be given of each separate group, but, as far as possible, reference will be made, pointing out where those interested in the subject can find fuller information.

By ambulance organization, equipment and transport, one means those various arrangements, whether for the military or civil needs of the people, by which first aid and

suitable transport is given to those suffering from sickness or accident up to the moment of their arrival at permanent hospitals, and a description of the systems, organizations, and equipment used for the purpose of giving this aid. The purely medical treatment side of this subject will not be dealt with in these pages, but rather the ways in which such treatment is placed in a position to do its work, and the various aids gained by definite organization in furthering such an object.

It may safely be said that ambulance aid and the good it can bestow upon humanity is still almost undeveloped. There is a growing spirit of humanity in the world, there is an intense desire to mitigate as far as possible the bitterness of human suffering, but it is the exact knowledge of how best to do it that the world needs. The want of light is really the obstacle, and hundreds of people are ready to do good if only they knew how to do it. To-day we are at the threshold of the true method, for we are teaching the people how to be truly humane, and when we have taught the individual this lesson, the municipality and the nation of which he is a citizen will gradually put into execution the wish of the people.

Is there one amongst us, who, either in war or peace, when help has been needed has not found the desire to give it in abundance, but it is the knowledge of how to give it that was absent.

Let us as the years go on teach the people, and all will be well. When we have taught the nation how their bodies are organized, of the laws that govern them, of the ailments that attack them, and of the injuries that mar them, then, and then only, will a real beginning be made to minimize by science the ills that befall humanity. The more this knowledge is spread through the land, the more importance will attach itself to ambulance matters of every kind, for it is a large factor in minimizing suffering.

The spread of the ambulance movement in civil life and amongst civil communities has arisen mainly from its development as a means of giving aid to the wounded in

war. The nations have been horror-stricken by the intense sufferings of a Crimean army, by the enormous mass of wounded after Solferino, after Gettysburg, after Sadowa, or at Worth; but all this suffering, great as it has been, has really been as nothing by comparison with that ever-constant, never-ending pain endured by the mass of civilians daily injured in railway accidents, in the streets, in the mines, and in all our varied industrial developments. When we think of these sufferers, as well as of the great numbers of sick persons travelling in unsuitable conveyances while suffering from dropsies, heart disease, rheumatism and other painful ailments, we must admit that, however great the pain that war has inflicted upon humanity, the longer eras of peace have contributed a far larger quota of grievous suffering. But the attention of the world has been riveted by the concentrated horrors of a great battle, and out of the efforts made to mitigate such sufferings, good in the end has come to the civil workman and to the whole of that industrial army daily at work throughout the country.

The plan I propose following in these pages will be to deal in order with the various groups into which the subject divides itself, leaving the plates to do much of the teaching and connecting them by a few lines of letterpress.

I will first of all describe in general terms the organized system by which ambulance help is given to armies in the field, explaining the official military methods of working such aid, and then referring to those various knightly orders and Red Cross auxiliary societies organized for supplementing this aid during war time.

Then I will endeavour to make a *précis* of municipal ambulance systems at work at home and abroad for the help of those suffering from injury or disease in civil life, and follow it up by indicating the various civil associations working with the object of urging forward this civil aid to the sick or injured.

I then propose to run rapidly through the detail of the various ambulance equipments, whether personal as carried by men, portable as carried by animals, wheeled convey-

ances for carrying the sick, railway ambulance arrangements, tents and huts used for temporary shelter, and winding up with a brief outline of nautical ambulance, or the methods used on board ship to carry or shelter the suffering. Owing to the limited space at my disposal I will in each of these sections take a type or special pattern, and, describing it, leave it to the reader to compare the type with the various evolutions from that type which he may find either in the Exhibition or in his various studies of the subject. I have here again to repeat that these pages are essentially a primer or elementary text-book, and must be received in that light.

CHAPTER II.

WAR AMBULANCE ARRANGEMENTS.

THE AMBULANCE ARRANGEMENTS OF AN ARMY IN THE FIELD.

[*Vide Frontispiece.*]

Difference between ancient and modern war—The work of Larrey and Percy in improving Ambulance arrangements—The Medical arrangements of an English Army Corps—The Battalion Help—The Bearer Company—The Field Hospital—The Line of Communications—The Base Hospital—The Hospital Ships—The Medical Staff of the Army—The Militia Service—The Volunteer Service—Defects of an English War Hospital.

WHEN we look back over the history of the past in reference to the treatment of the wounded in war, we find that fighting in the old days was more logically carried out than at the present time.

When two armies met in ancient times the combat became a series of personal encounters, man opposing man and closing with his adversary in hand-to-hand fight. In those days few wounded existed, for after the battle, or during the fight itself, the stricken were slain outright.

To-day armies rarely close upon one another, large quantities of wounded from distant firing exist, and the spirit of humanity prevents the killing of wounded enemies. But in all our English foreign wars in India, China, New Zealand, Ashanti, Zululand, Egypt and Affghanistan, the old merciless principle is still in force with our enemies, and to be stricken in these wars and to fall into the enemies' hands is to be slain.

Another marked difference in the wars of the two past

centuries is that the old clan or tribal organization, as well as the feudal organization, has passed away in civilised countries.

There can be no doubt that the clan or tribal feeling supplied a tie between the chief and his men that rendered it impossible for a sick or wounded clansman to be abandoned to his fate.

In feudal times the baron, although he claimed the service of his retainer, had also in return to render service by protecting his "man," and no doubt a certain care had to be given to all followers of such a feudal chief.

With the breakdown of these old-world links, and with the foundation of standing armies, it is a question if the ultimate private man, that last unit who had in his clan or with his lord a definite link, has not lost on the whole. In becoming simply a unit in a great army, if that great army has not a good system of aid to the wounded, the individual private soldier loses most of all. To-day it would be absurd to say that our own, or indeed any foreign army, is yet completely organized in an ambulance sense, but much progress has been made in the past thirty years in achieving efficiency, and there is much promise of good results in the immediate future; the one thing needed is an educated public opinion.

Modern military ambulance arrangement dates its first step forward in a marked manner to the labours of Baron Larrey and Baron Percy, surgeons of the French Army during the wars of the French Revolution and the First Empire.

Larrey seems to have been the first to have devised a system of light ambulance transport carriages to convey the wounded rapidly from the battlefield to the field hospital, always some distance in the rear; and Percy has the credit of being the first to organize a regular corps of ambulance stretcher-bearers to carry the wounded from under fire, and from the actual fighting line itself to organized "dressing stations" immediately behind the very front ranks of the army.

Both these first steps in more perfect organization of ambulance aid have since then been carried to a far more definite development, and practically the clear lines of the German military medical system is now followed in all modern armies. This system may be summed up briefly as one freeing the front of the army from all sick and wounded, and evacuating all seriously sick to the great hospitals on the lines of communication, or at the base of operations.

The system can be more easily gripped by studying

Fig. 1.

REGIMENTAL AMBULANCE AID AT WORK—CAVALRY HELP TO WOUNDED.
(*After Ruhlemann.*)

the diagram of the ambulance arrangements of an English Army Corps which forms a frontispiece to this handbook.

An English Army Corps is the highest unit of military organization we have in the English military system, and any great army would consist of several Army Corps grouped together. If then we understand the arrangement of a single Army Corps, we can easily follow the larger arrangements.

The total strength of an English Army Corps is about 36,000 men, with ninety pieces of artillery. This body is commanded by a general, and is medically administered by a surgeon-general on his staff.

The Army Corps is divided for command into three

military divisions of all arms, one detached and separate cavalry brigade, and a body of reserve artillery and engineers called the corps troops.

Each division is again subdivided into twelve military units grouped in brigades and divisional battalions or batteries. The cavalry brigade has three regiments of cavalry and a battery of horse artillery, and the corps troops consist of five batteries of artillery (thirty guns) and four field units of engineers.

With each of these units, be it battalion, regiment or battery, on mobilisation for war, a medical officer is placed. He is the sanitary supervisor of the unit, and is a staff officer of the commander of the unit, and he remains with the unit throughout the campaign.

He has a certain amount of portable drugs and dressings supplied to him, and carried in "Field Companions," and he is supposed to treat any trivial cases of illness of a few days' duration; but no regimental hospital properly so called now exists in our own or any European army.

All seriously sick or wounded are now treated in divisional hospitals, of which more presently.

For ambulance aid this battalion medical officer has placed under his command two soldiers per company equipped with stretchers and surgical haversacs. These men have taken the place of the old scratch system of employing bandsmen, and they give aid to the regimental wounded under fire, and are called the regimental stretcher or ambulance detachment. They are in no way to be confounded with the "Divisional Bearer Companies."

When the regimental medical officer has given what rough help he can to the wounded under fire he sends them to the rear by his regimental bearers, and here a new organization, constituting an entirely new departure in our army, is met with: this is the Divisional Bearer Company. With each of the three divisions of an Army Corps is posted a Bearer Company completely non-regimental, and being really a divisional medical unit serving under the general and principal medical officer of the division. Half of such

a company is attached to the cavalry brigade and half to the corps troops. This makes a total of four such companies in an army corps.

Each company consists of eight surgeons and some two hundred and six Army Hospital Corps stretcher-bearers and transport drivers. These stretcher-bearers are trained in ambulance drill and first aid to the wounded, and in the

Fig. 2.

REGIMENTAL AMBULANCE AID—VARIOUS EXTEMPORISED AIDS TO WOUNDED.
(*After Starcke and Ruhlemann.*)

formation of dressing stations. Each company has two surgery waggons, water carts, and thirty-three ambulance transport waggons.

The surgery waggons are fitted up with boxes and baskets containing surgical dressings and instruments, cooking utensils, and medical comforts for the wounded. Each waggon has also an operating table and tent for surgical service at the dressing station.

These companies move directly in the rear of the fighting line, and having pitched the operating tent and dressing station, and left a suitable staff to assist there, they send forward the waggons to a "collecting station" further ahead, and just on the verge of the musketry fire. From this they again send forward the stretcher-bearers, who go on to the actual battlefield and collect and give a first dressing to the wounded, stop bleeding, give water and stimulants, and carry back the wounded to the collecting station and transfer them to the ambulance waggons. The

Fig. 3.

DETACHMENTS OF THE BEARER COMPANY AT WORK.
(After Starcke and Ruhlemann.)

regimental stretcher-bearers likewise co-operate, either loading their wounded directly into the ambulance waggons or handing them over to the bearer company staff on the field. The transport waggons then carry the wounded to the dressing station properly so called, where a completer examination is made of the wounded, where regular food is given, and where a classification of the cases can be made. From this place the wounded are sent back to the field hospitals of the division further in the rear, or if these hospitals are delayed in reaching the rear of the army, as

they often are, the bearer company dressing station becomes for the time a very advanced field hospital, where the wounded can receive a rough attendance pending the arrival of the hospitals upon the field.

We now come to the field hospitals. These units have replaced the forty-nine little hospitals which in olden days would have marched in the front line of an army in the field. Every English Army Corps has twenty-five field hospitals, each supposed to accommodate and nurse 200 sick and wounded. Of these twenty-five hospitals two are attached to each division, making a total of six, and six more are in reserve behind the fighting front of the army and ready to replace the divisional field hospitals when the latter become full of sick and are no longer in a position to advance with the force. Thirteen field hospitals are placed along the communication line at the various *étappes* or halting stations of the army, and at the base of operations three or more of these are grouped to form a base hospital, one of the most essential institutions with an army in war time.

A soldier if hit in the front of the army is roughly dressed by the battalion doctor, he is then taken to the divisional dressing station and completely examined and fed, thence he passes to the divisional field hospital, where if he be trivially hurt he remains, recovers, and rejoins his battalion, but if seriously sick or injured is sent back by the lines of communication towards or to the base hospital. Here if he recovers he again is sent forward and rejoins his corps, but if completely injured and broken down, he is placed in the hospital ships, and in due course arrives at Netley and England.

The medical service of the army consists of three bodies, viz., the Army Medical Staff, composed of physicians and surgeons commissioned in the army. These officers are responsible for the working of the medical and sanitary service of the army, command the medical corps, and are governed by a Director General who belongs to the War Office Staff. There is also a Medical Corps of some 2200 hospital attendants trained to nursing and ambulance

duties. This corps has a training school at Aldershot, where the rank and file are instructed in all ambulance and medical duties. Finally, there is the Female Nursing Service, a limited body of ladies serving in some of the larger military hospitals. The Nursing Service has a Superintendent who is its responsible head under the Director General of the Medical Service. She is stationed at the Royal Victoria Hospital, Netley, Hants.

Turning from the regular army to the auxiliary services, we find our large Militia force completely defective in ambulance and medical arrangements, and it is now proposed that a body of militia, some 1200 men, should be trained annually in ambulance drill so as to form a supplementary help for the army in time of war, and this will be highly advantageous to the country.

Our large volunteer army 200,000 strong, is completely unprovided with bearer companies or field hospitals, and has nothing but some regimental help. There are probably not half a dozen ambulance waggons with the whole volunteer force. Public opinion is now being awakened on this head, and it is hoped that a battalion of medical volunteers will be raised in London, Yorkshire, and Lancashire, and that companies capable of forming field hospitals and bearer companies, will be formed in each English and Scottish county, and in many large towns.

It is a great pity the volunteer army is not made completely efficient from an ambulance point of view.

The ambulance service of the military force of this country must be looked upon as completely in a stage of development. The *matériel*, or the waggons and equipment of the bearer companies and the field hospitals, are singularly heavy, cumbrous and unsuited to our varying wars. No complete standard equipment of a field hospital to be carried on mules exists either in this country or in India. Concerning ambulance railway carriage and its development there is still much to learn. It will be useful to note any foreign equipment sent to this Exhibition, and to copy its good points. Field cooking as

now generally provided for in the armies by special portable cooking waggons is also a subject needing much development.

So far as concerns the ambulance *personnel*, an English war hospital for 200 sick is completely undermanned, and it is impossible to make it work efficiently with the small number (thirty-seven) of men supplied to it.

No provision whatever is made for water carriers, washermen or sanitary police, and as a consequence great difficulties arise in war time. It is entirely to the advantage of the country and its soldiers that public opinion should understand what ambulance aid means, so that real field efficiency may ever follow our military ambulance arrangements. The more the ambulance arrangements of the army, the militia, the volunteers, and the red cross societies are developed in England the better will it be for that private soldier on whom in all our wars the heaviest sufferings from ambulance shortcomings fall. All who desire to study further English war medical arrangements should purchase the 'Army Medical Regulations,' to be obtained from any military booksellers, such as Messrs. Clowes

CHAPTER III.

VOLUNTEER WAR AID.

THE KNIGHTLY ORDERS AND THE RED CROSS SOCIETIES.

The Knightly Orders and their work—The United States Sanitary Commission—The foundation of the Red Cross Movement—The Geneva Convention—The good and the weak points of the movement—Little help given to the English Army by Red Cross Societies—The work that might be done by the English Red Cross Society—The Johannritter Order of Germany—The "Deutsche Ritter" Order—The Austrian Maltese Order—The Italian Branch of the Knights of St. John—The English Order of the Knights of St. John—The Addresses of the Head Quarters of the European Red Cross Societies—The Periodical Press of the Red Cross—Gustave Moynier's "Red Cross and its Future."

THE different conditions of an army in peace and in war, as regards the needs of ambulance aid, are so marked that it can easily be seen how great must be the reserve help capable of being called out in war time over ordinary peace needs.

War is an epidemic of injuries and special diseases occurring amongst men who in peace time are little exposed to either conditions.

To maintain permanently the establishments suitable for medical war needs in peace would be impossible, and a reserve system capable of being called out for a campaign is the real need of all ambulance services.

Private humanity has never failed in all our wars to endeavour to mitigate the sufferings of the sick and wounded.

We may presume that it has always been so in the world in greater or less degree.

The spirit that in the crusading time founded the great hospitaller knights orders, was doubtless the humane effort of noble hearts who bled to think of the sufferings of the pilgrims and crusaders on their trying expeditions to the Holy Land. These orders were truly the forerunners of the great red cross movement of our own times.

They commenced, doubtless, in small beginnings, and were poor and weak at one time, but gradually they gained strength and power, and with it came a fading away of that great spirit of self-sacrifice which first gave them birth. Their rich estates and noble commanderies once spread over Europe, but to-day it is only in Austria that the endowment of the orders survives to any extent.

With the decay of the crusading spirit their hospitaller duties passed away, and they really became military knightly orders.

Reformations and revolutions swept away their property in many countries, and what survived of the knights seem to have become intensely narrow, and absurdly aristocratic, and exclusive in their organization, and forgot altogether the object which first brought them into existence. The red cross movement of our own day has been like some great democratic wave which has stricken down the barriers, and both the orders themselves and the world in general have been benefited by the flood of enthusiasm it developed. Private humanity did much for our army in the Crimean campaign in supplying money for the purchase of comforts for the suffering, and it would have done still more had it but known how to do it.

Probably the greatest outcome of national sympathy with suffering ever seen in this world was the work of the United States Sanitary Commission during the war of the rebellion in America, 1861–65. Its stupendous efforts and magnificent results will remain through all the ages as a landmark of humanity acting in its best form to relieve suffering. The story of its work in aiding the regular medical service of the United States army, the new departures it made in hospital comfort and organization,

the many-sided developments it has produced in reducing war suffering, will never be forgotten.

Immediately before the American war, another campaign had occurred in which much misery had been endured by the wounded. This was the Italian campaign of 1859. But out of its great horrors, and out of the depths of its sufferings, came refuge at last, and a better future dawned upon the world.

If one is asked to propose a saint for canonisation and to name in his honour a new order, let the saint be St. Henri Dunant, and let the order be called the Dunantines.

It is to Henri Dunant the world owes the origin of the red cross movement.

Horror-stricken by what he saw, he published a book called 'Un Souvenir de Solferino,' detailing the sufferings of the wounded in the Italian campaign of 1859, and as a result of his work a committee was held to discuss the subject of the treatment of the wounded in war, at Geneva, on the 9th of February, 1863, which led up to an International Conference at the same place in October 1863. The 9th of February, 1863, may be looked upon as the date of origin of this never-to-be-forgotten movement, which has for its aim the mitigation of suffering in war, and the provision of suitable aid for the sick and wounded in the field. The International Conference drew up a series of resolutions and recommendations, bearing upon the need of volunteer assistance to supplement the official help given to the wounded in war. It also recommended the neutralisation of the medical corps and all its attachés, civil, volunteer or military. It also founded a distinctive badge, the "red cross," on a white ground, and recommended it to be borne by all the medical corps, *personnel* and *matériel* of every class and kind.

This International Conference led the way to the drawing up of the "Geneva Convention," signed on the 22nd of October, 1864, by the accredited representatives of the leading European nations.

By it the contracting nations agreed to the neutralisation of the medical corps, and the hospitals and their attachés, and also of civil inhabitants aiding or sheltering the wounded. It recognised the Convention flag, but it in no way specially recognised red cross societies as such. In 1868 and in 1874 some further suggestions were put forward as additions to these principles, but they have not been ratified.

The Red Cross Societies exist now in every European and many other extra European countries; they have, however, no official *international* recognition. The distribution of their badges is still *officially* subject in each country to military supervision. There are still *National* Societies subordinated to the military authorities of their own country. They have of course their centre for administrative and consultative purposes at Geneva, but this Central Committee has no official recognition. These National Societies have done an enormous good to humanity, directly and indirectly. They have, by their direct action, supplied for the sick and wounded an immense amount of assistance, both in *personnel* and *matériel*, and have been the great channel for national charity, and they have indirectly stimulated to a very great degree the slower moving state-controlled action of the official military, and medical authorities. In many countries their *personnel* is more numerous, and their *matériel* more complete, than that of the official medical services, and being freer to move, and being more influenced by public opinion, they have pushed forward ambulance assistance in a very marked degree. The stimulus they have given to the official medical services has been almost all for the best, although, as in many movements, there are weak points to be indicated.

The general outline of the organization is as follows:—At Geneva there is an International Committee keeping up communication with all the National Societies, and publishing a paper quarterly as a circulating agent between the different countries.

In each country there is but a single Red Cross Committee representing the whole national organization. In some

countries there is distinct official connection between the societies and the military authorities, in others this is not the case. Money is collected, ambulance *personnel* and *matériel* collected and trained, and the agents of the Red Cross during each campaign hasten to the scene of action, and endeavour to give what aid they can by money, men, or advice.

Of course in a movement of this kind adverse criticism is also heard.

The distribution of the Red Cross has in many instances been carelessly done; unfit men and unfit women have at times received it, and a crowd of mere idlers have used it for a screen for their idleness. Swarms of *blasé* men have, under the protection of the Cross, to which they had no claim whatever, haunted the battle-fields, and under the guise of giving ambulance aid, have merely gratified a morbid curiosity. Numbers of "wild women," without discipline, without organization, owing allegiance to no chief, have flocked to the armies in the field, to encumber and obstruct the real workers, and to degrade by their extraordinary freaks the noble intentions of the founders of the League of the Red Cross. But, after all, these weaknesses in the movement have been few, and the good achieved has quite overbalanced them. What we need for our assistance in war is trained and disciplined help, come from what source it may. Scratch-teams of sensation-loving men and women we do not need in war. We need to have drilled and disciplined Red Cross volunteers, chosen calmly in peace, medically examined as to physique, morally examined as to character, enrolled with regularity and commissioned in due form, called out at intervals for inspection, and liable to expulsion for breaches of discipline.

Instead of a mere arm-badge, these societies need a complete uniform, not to be worn save by authority, and their documents and their defaulter sheets should be ready to be produced. Then, indeed, such societies of nurses, attendants or officers, would be of value; but we must have discipline, exact, distinct, and unquestioned.

For us, in the English army, Red Cross aid has as yet

done little; our hard campaigns in Ashanti jungles, in New Zealand fern thickets, in the cholera-haunted defiles of Affghanistan hills, or on the burning shores of the Soudan, have not attracted the followers of the Red Cross Societies.

We are the one army in Europe which has to trust almost entirely to our official medical service, and hence the need of its being strong and efficient; hence the need of it having its own trained disciplined and entirely available official reserves. But we still should hold out a ready hand to all well-organized Red Cross aid, provided only it be disciplined, and that we can see it, and inspect it, and test it in peace for war.

What the mission of the English Red Cross Society (National aid to sick and wounded in War) should be, is to stimulate popular feeling by publishing pamphlets, giving prizes for essays on subjects connected with war-hospital work, by purchasing and exhibiting new patterns of ambulance *matériel;* by enrolling, drilling, clothing and disciplining volunteer ambulance companies; by granting money to purchase extra comforts for the sick in war; by continuing its good work of organizing female nursing services on disciplined basis capable of assisting us in our war work; by forming in London an Institute, where war medical equipment could be exhibited, lectures given, and discussions held on war-aid questions, and perhaps by founding a medal of honour for those who did good service in its cause. The Society should be a living force, influencing for good all popular opinion, and aiding us in the official medical service by teaching us and the world what our true needs are. The need of an English Red Cross Journal is very great indeed. The Red Cross movement may then be summed up as the outcome of a desire on the part of the peoples to mitigate in every way the suffering of the sick and wounded in war time. It is an uprising of human sympathy against the coldness and want of energy of official organizations. In every country in Europe, and in many foreign states, it has collected money, men and material—all for service in this good work.

The initiative of Henri Dunant has been taken up far and wide through the world, and the seed he has sown is bearing everywhere good fruit. These societies, beginning in voluntary effort, will gradually become more and more completely identified with the national forces of each country, and eventually, as a result of their labour, the official medical service will become more and more efficient. Such reformations and such developments are bound to occur from time to time in the world, and we should gladly accept the good work done by them. The Red Cross movement will in future ages mark most distinctly the period in which we live.

The following are the names of some of the Knightly Orders aiding the wounded, and the addresses of the various Red Cross European Societies.

A. *The Johannritter Order of Germany.*—The German section of the Knights of the Order of St. John of Jerusalem, a highly aristocratic Evangelistic Protestant organization, occupies a very prominent position amongst German aid-organizations. The Order of St. John had existed in Germany as a Brandenburg branch for many centuries, and was remodelled in 1812, as a Royal Order, but apparently the revival of its war-aid work is of quite recent date. To-day it holds in Germany proper the chief position as the central organizing body, through which the German Imperial authorities deal with the various aid societies of the different countries in the German Empire.

B. *The Maltese Knightly Order of Germany.*—This Order is the Roman Catholic division of the same Order. It apparently works on the same lines as the Johannritter Order.

C. *The Austrian Order called "The Deutsche Ritter," or Teutonic Order (Catholic).*—This Order has long been in the field at aid work, and occupied the ground in Austria from mediæval times, and long before the Red Cross movement. It has a distinct agreement with the State as to its duties, and its ambulance-waggons and its *matériel*, which are found in each division of the army, seem very complete. It divides its war work in a definite manner

with the Austrian Red Cross Society. It apparently has no *personnel*, only *matériel*.

D. *The "Souveranen Malteser Ritter Ordens Gross-priorat von Böhmen,"* or *Austrian Langue of the Sovereign Order of the Knights of St. John*, seems to be a powerful and wealthy military Order, furnishing complete trains of railway ambulance, transport, and field *matériel* to the Austrian army. It provides surgeons, attendants, and the knights themselves also take the field. Its railway ambulance trains, organized by Dr. Baron Mundy, are the most complete in Europe. The Order seems to possess large estates in different parts of the Austrian Empire, having probably escaped the confiscations which reformations or revolutions have brought about in other countries.

E. In Italy the Knights of St. John seem to be useful and active, and in Spain particularly so, working there in direct unison with the Red Cross Society of Spain.

In England the Order of St. John of Jerusalem is not very active in war work, and is more known by its modern civil offshoot, the St. John's Ambulance Association, of which more by-and-bye.

The English Order of St. John (Protestant) has its headquarters at St. John's Gate, Clerkenwell, London, E.C. There is also a Catholic branch of the Order of St. John in England, but it does no war service.

F. The principal Red Cross Societies are as follows :—

International Committee at Geneva.—Rue de l'Athénée No. 3, Genève (Suisse). President, Gustave Moynier.

Central German Committee.—Wilhelmstrasse 73, Berlin.

Austria and Hungary.—Austrian Red Cross Society. Herrengasse 7, Vienna. Hungarian Society. Kettenbrückengasse 1, Buda-Pest.

Baden.—Comité Général de la Société Badoise de Secours. Herrenstrasse 45, Carlsruhe.

Bavaria.—Comité Central de la Société Bavaroise pour les soins et l'assistance à fournir aux militaires blessés. Munich.

Belgium.—Comité Central Belge. Rue Royale 42, Brussels.

Denmark.—Buloswei 24, Copenhagen.

Spain.—Association espagnole de la Croix Rouge. Plazuela del Humilladero 6, Madrid.

France.—Société française de Secours aux militaires blessés. Rue Matignon, 19, Paris.

England.—National Aid Society to Sick and Wounded in War. 5, York Buildings, Adelphi, London.

United States, America.—American Red Cross Society, Washington.

Greece.—Société grecque de Secours aux blessés. Athènes.

Italy.—Central Italian Committee of the Red Cross. Palazzo Lantè, Piazza Capellari 70, Rome.

Holland.—Comité Centrale de la Société Néerlandaise de la Croix Rouge. The Hague.

Prussia.—As for Germany.

Russia.—Comité Central russe de la Croix Rouge. Rue des Ingénieurs 9, St. Pétersbourg.

Saxony.—Comité Central des Secours aux militaires blessés. Dresden.

Switzerland.—Société Central suisse de la Croix Rouge. Zurich.

Periodical Press of the Red Cross:—

1. "Kriegerheil," organ of the German Societies; monthly at Berlin.
2. "Messenger of the Russian Society." Weekly at St. Petersburg.
3. "Caridad en la Guerra." Madrid; monthly.
4. "Military Medical Journal." Stockholm.
5. "Philanthrop." Organ of the Swiss Society; Zurich.
6. "Bulletin International des Sociétés de la Croix Rouge." Organ of the International Committee, and published at Geneva; quarterly.

Those who desire to learn more about the Red Cross Societies should read Gustave Moynier's "Red Cross and its Future," of which Mr. John Furley has made a translation, which is published by Cassell, Petter, Galpin & Co. London.

CHAPTER IV.

CIVIL OR PEACE AMBULANCE ARRANGEMENTS.

The Ambulance arrangements in American Cities—Need of the same in England—The treatment of Drunken men in the streets—Street Stretcher-lockers—A London Ambulance Service—Railway Ambulance arrangements—Poor Law arrangements—Example of a Municipal Ambulance System—The Metropolitan Asylums Board and its work—The Hospitals and Ambulance arrangements—The old Parochial System and its defects—The Ambulance Steamer "Red Cross" on the River Thames—Rural Ambulance Systems—The Battle District of Sussex—Lady Brassey's System—The Town of Brighouse in Yorkshire—Civil Ambulance Societies—The St. John's Ambulance Association and its work—The good done by it—The London Ambulance Service—The St. Andrew's Ambulance Association—The Samaritan Society of Kiel.

We have in a previous page of this Manual pointed out that it was mainly owing to the developments of war-ambulance systems that civil arrangements have sprung up.

The striking effects of a great battle, and its consequent miseries to the wounded, have ever arrested public attention in a manner that the more scattered accidents and sufferings of civil life have failed to do.

Yet when we remember our long-continued industrial warfare, with its daily casualties, and the vast sickness of our civil population, it will be understood how far greater are our civil ambulance needs.

On this point, as on many others, the people want light. Until the average citizen knows what a compound fracture is; how arteries bleed, and why; and understand some of the risks and pains attending the movement of cardiac or dropsical patients, great developments will not come. It is to the great cities of the New World, like New York,

Boston or Chicago, we have to turn to learn lessons as to civil ambulance arrangements.

We find in these cities regular ambulance conveyances, and a special staff of surgeons, attendants, drivers and horses, attached to the great municipal hospitals. The great central thoroughfares, the police stations, and the hospitals, are all united by telegraphic or telephonic communications.

At once on the occurrence of a street accident, a telephonic message is despatched to the District Hospital for aid, and, as a rule, in three minutes after the message is received, a specially constructed ambulance carriage, containing a medical official, with appliances and restoratives, is speeding on its way to render aid to the sufferer. The New York system is singularly perfect, and Boston and Chicago are not far behind. When we remember the vast numbers of persons run over and injured by carriage accidents, fall from scaffoldings, or stricken down by the many risks of our great factories, we all must admit that England generally, and our great cities in particular, need such organization of help almost more than America.

To stimulate all this humane work, what is needed is light. Every one rushes to aid in an accident; but, alas! the people do not know how to give aid, they know not what to do, or what not to do; and so it is that injuries, in themselves light, are gravely complicated by ignorant handling. How needful then is it that we teach the people, and that we by so doing sow the seed for the development of ambulance-organizations!

The removal also of people suffering from heart-disease, rheumatic affections, infectious disease, dropsies, is also a subject of great importance, and it would be possible to tell many painful stories of the suffering caused by the absence of suitable stretchers and carriages for use in such cases.

Take, again, the question of drunkenness in our streets. Can anything be more degrading to human nature than to see a body of policemen struggling with a man in the mad stage of drink-poisoning? The struggles of a drunken man in his excitement are as surely the symptoms of poisoning, as

the muscular cramps of strychnine poison mark the action of that deadly drug. The treatment in one case should be as carefully guarded as in the other; yet have we not seen the murderous and cruel "frog's march" practised on drunken men, where the poisoned sufferer is carried with his head within a few inches of the ground, and all the blood of his body gravitating towards it. How many cases of police-cell apoplexy have really been murders, from ignorance from want of organization and education on this head?

The day will most surely come when such sights will be no more seen. The stretchers so needed for these cases will not be found in police offices only; but in every street of our cities red-painted lockers, like enlarged post-boxes, will contain a stretcher ready for use. Every policeman or local householder will have a key.

Every post-office will have such a stretcher, every railway station in the country; and shall we say every public house also, so that they who sell the poison may also keep on hand a physical relief for its effects?

A drunken man shall then be at once overpowered and strapped on the stretcher, and so borne to the hospital or police ward told off for such cases.

Nay more, we shall one day have municipal ambulance (sick transport) waggons attached to our great hospitals, or to special ambulance stations, and these waggons shall receive both accident cases or drunkenness cases on the stretcher as they are, and so place them in the waggon and drive them rapidly to the relief centre. It is only in this way we can free our streets from painful and degrading sights, and at the same time provide for accident cases.

London and every city should be mapped out in districts, and these districts allotted for ambulance-purposes to the local hospitals and the local police centres.

Telephonic communication should run from the streets to the hospitals and the police depôts, and at the hospitals the waggons or carriages should stand ready for constant use to drive to the scene of the accident. Trained medical

officials should be on duty, ready to leave with each carriage and to assist the injured person. The stretcher in the carriage should be interchangeable with the one in the street-stretcher-locker, and should replace it at once, receiving in return the sufferer and the other stretcher.

For the carriage of the sick, and those enfeebled and handicapped by disease, a special arrangement is needed, which only a strong municipal government will ever be able to organize.

The London Hospitals should come under a central Board, and their funds be "pooled" in a common fund, having in reserve the municipal rates to fall back upon.

The existing hospitals, and the many other municipal hospitals needed, should be distributed with system over our great city. A chain of outposts in the shape of municipal dispensaries should bring medical relief within a quarter of a mile of every citizen. Here first aid should be ever ready, and here the outpatients now swarming and crowding at our great hospitals should be dealt with in detail and by districts. At certain hours in the morning, midday, and evening, the sick-transport waggons from the great central hospitals should call at these outlying dispensaries, and carry in comfort the cases chosen for admission to the district central hospital. But far more than this is needed, for a ring of great hospitals, combining in the same extensive grounds both convalescent and treating sections, should surround London at a distance far removed from the smoke and overcrowding of our great city. Alike on the Sussex coast, on the Surrey hills, or mid the heaths of Berkshire, should be found those great outlying, overflow convalescent and treating municipal hospitals, to which, according to the nature of the case, each patient could be forwarded, but how? By special ambulance railway trains, leaving every morning with sick and returning every afternoon with the recovered. These trains, well fitted for every ailing case, will one day be as common as the sleeping-cars of the Pullman trains are becoming common, and an inestimable boon they will be to all using them.

And this leads me to the subject of railway-ambulance arrangements, now so completely defective. First, (*a*) every railway porter should be taught the elements of ambulance aid, in lifting injured persons. It is easily learnt.

(*b*) Every railway station needs a carrying chair, for carrying invalid travellers from their conveyances to the carriages.

(*c*) A stretcher should be kept by order in every railway station throughout the length and breadth of the land, ready for use.

(*d*) In the guard's-van of every train of every class, such a stretcher should be kept folded up and put away, but ready for use, and iron clamp stanchions, after the "Hamburgh system" (to be described afterwards), kept ready also for suspending the stretchers.

(*e*) To all breakdown trains should be added proper ambulance carriages, fitted up for the conveyance of those maimed in our railway accidents, and similar carriages should be available for passengers, if needed, at fair rates. Charitable societies might well supply the carriages and keep them in order. This would be really practical humanity.

In country districts the Poor Law unions furnish a ready machinery for ambulance aid. At every central union hospital, ambulance carriages, both for sickness and for infectious disease, should be kept; and in all the outlying parishes, stretchers and smaller-wheeled ambulances. Telephone communication would connect the outlying districts with the central hospital. Examples will be given further on of all these systems.

In mining districts and in all our great factories, stretchers should be kept by the owner, and either hand-wheeled ambulances or horsed-carriages be available for aid. The absolute saving of money to the world by preventing a simple fracture becoming compound, would well pay for all appliances a hundred times over.

On our rivers and harbours, ambulance launches and steamers, specially constructed for the injured or the sick,

should be placed by the Local Board responsible for the sanitary police of the river.

We will now describe with more detail some of the existing systems of civil ambulance arrangements.

Municipal Ambulance Systems.

Arrangements of the Metropolitan Asylums Board, London.

Vide Plan, Fig. 4.

The Metropolitan Asylums Board of London has now at work in the Metropolis a system of ambulance arrangements well worth studying.

This Board, amongst other important duties, is responsible for the medical care and hospital accommodation of all cases of infectious disease occurring amongst the pauper class in greater London.

Its schemes of work are yet in the stage of development, and not completely worked out, but they may be explained in general terms, and the lines of work broadly indicated.

Previous to the formation of this Board, the various parishes dealt or did not deal with their own infectious cases. The Metropolitan Asylums Board have now in greater London five infectious disease hospitals. (Vide plan, Fig. 4), viz.: Hampstead, Homerton, Fulham, Deptford, and Stockwell. In these central hospitals the pauper sick of the districts are received up to a certain number, and with special reference to the class of cases. Practically these central hospitals are for grave acute cases, which cannot stand the fatigue or risk of removal to the outlying hospitals, of which we shall speak directly.

A limited number, probably not more than fifty serious cases of small-pox, would be kept in these central district hospitals, and of fever cases a somewhat larger number, but no excessive number will ever remain in them.

Outside London proper, in the country districts and amidst healthy open surroundings, great overflow hospitals for the reception of mild, or convalescing, or convalescent cases, are or will be formed for fever at Winchmore Hill,

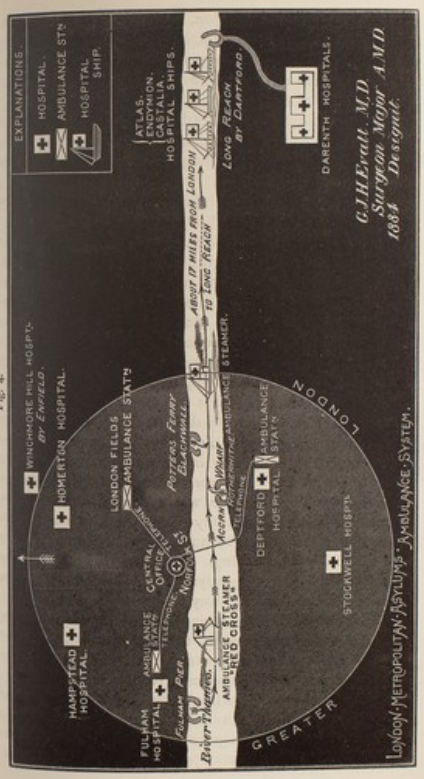


Fig. 4.

by Enfield; and for small-pox, in the three hospital ships, *Atlas*, *Endymion*, and *Castalia*, moored at Long Reach in the Thames River by Dartford and Purfleet, with a further reserve hospital on the shore at Darenth close by the hospital-ships' moorings.

This shore hospital at Darenth will be a great overflow hospital, available for first admission in case of an epidemic, and also as a convalescent hospital for ordinary cases in ordinary times.

To convey patients to these central and outlying hospitals the system is as follows:—

When a case of infectious disease occurs in a locality, the medical officer reports to the district relieving officer. This official telegraphs to the Central Asylums Board office, Norfolk Street, Strand. This office is connected by telephone with the ambulance stations existing and under construction at Deptford, London Fields, and Fulham.

These ambulance stations are admirably organized, and, so far as we have seen them, well worthy of study as patterns of ambulance stations.

A staff of superintendents, drivers, and subordinates are on duty in each station. Suitable (sick-transport) ambulance waggons for conveying infectious disease stand ever ready to be horsed. The horses are in stables close by, ready for hooking in. The whole disciplinary, sanitary, disinfecting, and precautionary organization of the station leaves nothing to be desired, and seem to us to be in every way a model worth copying. When one reads the ghastly record of the style of conveyances used only five or six years ago in London, to convey those unfortunate sufferers stricken with contagious disease to the proper hospitals, one rejoices beyond measure that so successful an effort has been made to render human misery less. Let us fancy the pauper sick of the Plumstead, Woolwich, and Charlton districts, who, up to 1877, when stricken with small-pox had to drive sometimes fifteen miles, sitting on a board, in a conveyance in which they could not lie down. These conveyances used for small-pox were never disinfected,

and stood in sheds with other carriages. Of Shoreditch we read, "In the small-pox cab the patient cannot lie down or even stretch his limbs;" of Marylebone, "The patient cannot lie down;" of Hampstead, "The patient must lie on the floor of the vehicle;" of Clerkenwell and Holborn, "The patient cannot lie down," "never disinfected." St. Pancras, "Patient cannot lie down." What comfort to know this wretched misery is now past and gone!

At these perfect ambulance stations, which we now possess, night and day, on the receipt of a telephone message from the central office, in three minutes a carriage starts for the infected house. As it leaves the gate, a nurse with a basket of restoratives in her hand steps in, and proceeds to the house to superintend the removal.

From the house the patients are taken, if grave cases, at once to the district hospitals. If they be of milder type, small-pox cases are carried to the river ambulance stations, which are or will be formed at Blackwall, Fulham, and Deptford.

At wharves at these stations the special ambulance steamers—one of which, *The Red Cross*, is now at work, and another is under construction—will convey the cases down the river to the hospital ships at Long Reach.

In detail, further on, we will describe the various *matériel* used in this work, but the general outline is as we have described. It will be seen at once that an identical system suitable for non-infectious ordinary disease can one day be developed in London. The existing hospitals will become receiving houses for grave cases and sudden illnesses; and round London, overflow hospitals, combining treatment and convalescence, will be founded. Ambulance sick-transport waggons will collect the sick from the districts for the London central hospitals, and regularly organized ambulance trains will convey the invalids who are relegated to the country outlying hospitals to their destination.

All that is needed to start this important work is a central municipal authority.

Rural Ambulance Systems.

It will be easily understood that for country districts an ambulance system can easily be adopted to the present union organization.

Every centre of a union should have a sick-transport carriage for infectious disease, and another for non-infectious disease.

The various outlying parishes should be united to the central office of the union by telephone, and the carriages could then be despatched as needed to the various places.

Fig. 5.

AMBULANCE ORGANIZATION ROUND THE BATTLE DISTRICT OF SUSSEX.

For accidents and non-infectious cases, stretchers with wheeled appliances should be kept in each village, local police office, local post-office or other place, the stretcher fitting into the central sick-transport waggon, and being exchanged with the patient on it for the stretcher in the waggon, which would be returned to the place from whence the stretcher was taken.

The diagram shows the system on which Lady Brassey, a regular ambulance missionary, has organized the Battle district. The secretary dwells in the Battle centre, and the outlying parishes are organized in connection with it,

and supplied with ambulance *matériel*. Any day our Poor Law unions could be so organized, but to achieve it we should teach every guardian what a compound fracture means. Until this is understood, progress cannot come.

Town and Village Ambulance Arrangements.

As an example of good work done in towns and villages, we would mention the ambulance organization of Brighouse in Yorkshire. Here a branch of the St. John's Ambulance Association was formed, and, under an active secretary, the local police, firemen, and many inhabitants, have been trained in first aid to injuries. An ambulance institution has been founded, and we find the following *matériel* available on the spot. One-horse ambulance (sick-transport) carriage for four patients, four two-wheeled Ashford litters, seven stretchers, one police-stretcher for drunken cases, one hamper of appliances for dressing, books, bandages, and diagrams, and a wooden coach house for the ambulance (sick-transport) carriage. Is not this highly creditable? and why should it be an exceptional case?

Civil Ambulance Societies.

It is to the St. John's Ambulance Association (chief office, St. John's Gate, Clerkenwell, London, E.C.), that we owe in England a great debt of gratitude for its successful efforts to popularise ambulance and first-aid knowledge amongst the people. It is an offshoot of the Order of St. John of Jerusalem in England, and has for its object the giving of lectures and demonstrations of first-aid to the injured in accident cases, and the provision of ambulance *matériel* for use in accidents.

Medical men are employed to give a course of lectures in first-aid in accidents, and in nursing. A regular syllabus is laid down; an examiner is sent down to hold examinations, and on his report certificates of first-aid or nursing are issued to the successful candidates.

Ambulance *matériel* is supplied by this association to many hundred places in England; but truly its important work is the education in the first principles of help it is giving to the people generally in all that concerns the human body. After considerable experience as an examiner, we can safely say that it has spread the first rays of the light of knowledge amongst thousands of people of every class, from the highest to the most humble in the land, and its work has been entirely for good. We feel quite certain that any medical man who takes up these classes in his town or village will be conferring a real benefit upon his district. Laymen of great intelligence and occupying prominent positions have frequently stated, that in any previous mistakes they made in giving help to sufferers, it was entirely their ignorance that was to blame. We have not taught the people enough, and it is to the credit of the St. John's Ambulance Association that they have fought the good fight, and victory is now theirs. To Colonel Duncan, Mr. John Furley, Mr. Barrington Kennett, and the hardworking secretary Captain Perrott, a national debt of gratitude is owing. Any further particulars as to formation of classes, method of work, and supply of ambulance *matériel*, can be had of the Secretary St. John's Ambulance Association, at St. John's Gate, Clerkenwell, E.C., London.

The London Ambulance Service.

In 1882 a movement to start a "London Ambulance Service" was originated, and is now at work in a small way. H.R.H. the Duke of Cambridge is President of the Committee; Mr. J. H. Crossman, Chairman; and Mr. Haggard, Secretary London Hospital, is Honorary Secretary. It has for its aim the provision of ambulance sick-transport carriages for London by means of public subscriptions. It has already supplied Howard's pattern of sick-transport carriages to Stoke Newington Police Office, to Fulham Police Office, and also to Lambeth Police Station. A hand-

ambulance, covered in, and built on Howard's system, has also been supplied to Stepney Parish, and the Vicar informs us it has been of much use. In all cases where these ambulances are supplied, a minimum charge of 5*s*. is made, increasing with the distance to 10*s*.

It will be quite evident that the poor are completely unable to pay such a sum, and even many people of that struggling body who form the lower middle class. One would like to see some charitable or municipal funds pay all charges in these cases, so as to lower the cost to that of an ordinary cab—or to abolish it altogether. As far as one can find out, the very existence of the "London Ambulance Service" is unknown to most people, and the London hospitals have not joined in any way in the movement. Further information can be obtained from Mr. Haggard, Secretary London Hospital.

Provincial Ambulance Associations.

There is an Ambulance Association at Glasgow called the St. Andrew's Ambulance Association. It works an arranging ambulance instruction for the people, and the provision of sick-transport waggons and *matériel* for the use of the public in cases of accidents or illness. Office, 93, West Regent Street, Glasgow; Mr. W. M. Cunningham, Secretary, who will afford any further information needed.

In Edinburgh some steps are being taken to form a similar Association.

Continental Civil Aid Societies.

Professor Esmarch, after studying the St. John's Ambulance Association system in England, has started a "Samaritan Society" on the same lines, with Kiel as its centre, from whence the movement is spreading over Germany.

Baron Mundy is the founder of a society on somewhat similar lines at Vienna.

CHAPTER V.

PERSONAL "FIRST-AID" EQUIPMENT.

The Surgical Havresack—Water Bottles—Field Companions—The Soldier's first Dressing—Means of carrying it—Identification Label—Esmarch Triangular Bandage—Esmarch's Braces.

THE difficulties of transport in war, and the sudden needs of "first-aid," in peace, renders it essential that a certain amount of *matériel*, in the shape of instruments and bandages, should be carried by the ambulance staff of an army, and by the individual fighting soldier himself in war time, and that in peace readily adopted means of aid should be more generally available. Thus in war, scabbards, bayonets, stirrup-leather, rifles and other articles are used as splints; just as in peace, garden-palings, rolls of paper, and walking-sticks are utilised.

In our army every medical officer carries a case of instruments in a pouch worn over the left shoulder. With every battalion and battery, small portable medicine cases, called "Field Companions," are found. These contain compressed drugs, restoratives, bandages, and the materials needed in first dressings.

With the bearer companies a regular havresac, called the "Surgical Havresac," and containing bandages, restoratives, a simple dressing-case, and tourniquets, is found.

This valuable aid is only issued to one-fourth of the number of bearers; but it should be issued to every one of all ranks in the bearer company, and each regimental bearer should likewise have one. They are made by Savory and Moore, of New Bond Street, and cost about £3 each.

Water-bottles are also carried in certain proportions by the bearers; but we would like to see every bearer, without exception, so equipped.

The method of carrrying the surgical havresac and water-bottles is shown in the picture on the title-page.

In Continental armies knapsacks containing very much the same *matériel* as is found in our "field companion" are much used, and for cavalry special saddle-bags (*sacoches d'ambulance*) are issued containing like equipment. In our army the cavalry first-aid appliances of every kind are very defective, and it will be interesting to note foreign equipments of this kind sent to the Exhibition. In our army a certain number of the fighting soldiers carry a bandage and

Fig. 6.

FIELD COMPANION FOR PORTABLE DRUGS AND FIRST DRESSINGS.
(*From Surgeon-General Longmore's Book, 'Gunshot Injuries.'*)

some dressing, either in their havresac or in their pockets. This most important help to the wounded in war needs to be completely and definitely dealt with in our service. Unless a distinct pouch is made for these dressings, they will never be either clean or available. There is room on the waist-belt, between the ammunition-pouch and the bayonet-frog, on the left side for a very small leather pouch, about four inches in breadth by six in depth. Such a pouch, kept in store in peace, should be issued in war to every fighting-man. It would contain an Esmarch triangular bandage, a roller bandage, some lint, oiled silk, and such antiseptic dressing as may be desirable. All these articles would be pressed by force into a small bulk, and placed in a waterproof cover in the pouch, and with them the absolutely essential "identification label." This would be a calico label, like that used for marking luggage; and when the war began, it should be filled up with all the particulars of the man's name, number, and regiment, so as to avoid delays and mistakes made on the field when men are wounded and faint, and cannot speak distinctly, or indeed, at all, at times. It should have counterfoils to the slip for the regimental surgeon, the bearer-company adjutant, and the field-hospital adjutant. The surgeon should only have to fill up the particulars of the wound on the field, all else being filled up leisurely at the beginning of the campaign.

IDENTIFICATION LABEL TO BE CARRIED BY THE SOLDIER IN THE BANDAGE POUCH.

Field Hospital Adjutant. (*Keep this.*)	Adjutant Bearer Company. (*Tear off.*)	Regt. Surgeon. (*Tear off.*)
REGT.—1st Battalion King's Own Borderers.	REGT.—1st Batt. K. O. B.	REGT.—1st Batt. K. O. B.
NO.—4239.	NO.—4239.	NO.—4239.
NAME.—Private Thomas Atkins.	NAME.—Pte. Thos. Atkins.	NAME.—Pte. Thos. Atkins.
WOUND.—	WOUND.—	WOUND.— .. .. ..
— day of ——, 188–.		
Surgeon ——.		

The label would be three times this size.

When hit, the regimental surgeon would fill up the main portion of the label, and tear off the regimental surgeon's slip for his own information. The adjutant of the bearer company would do the same with his slip, and thus fuller and clearer information would be obtained, and also the dead distinctly identified.

The Esmarch triangular bandage, now well known to ambulance students, should form part of all field-dressings; it is so useful for slings and head-bandages.

Professor Esmarch has also invented a pair of braces

Fig. 7.

ESMARCH'S TRIANGULAR BANDAGE FOR FIELD DRESSING.

which can be used as an elastic tourniquet for stopping bleeding.

There will probably be further developments of this idea as time goes on, so that one day interchangeable articles suitable for ordinary life and for surgical aid may be common. It will be remembered that the existing crimson sash of infantry officers was originally introduced for use as a hammock to carry the wearer when wounded off the field.

As far as regards the uniform of the ambulance staff of the various European armies, it is possible that one day an

international medical dress may be decided upon by an international conference. There would be advantage if medical officers and their men could be recognised at once, no matter to what army they belonged. In this, as in many other points, the system of ambulance-aid in war is quite in a germ condition.

The uniform decided upon for ambulance wear should be easy, free, and rational, and free from all tightness and display. The dress of women who desire to serve in war hospitals should also be completely rational, and all extra articles needing washing reduced to a minimum. The present outdoor dress of army nurses is certainly not suited for war service.

CHAPTER VI.

AMBULANCE SICK TRANSPORT APPLIANCES CARRIED BY MEN.

STRETCHERS, HAMMOCKS, DHOOLIES.

The Faris Stretcher—Baron Percy's Stretcher—An Ideal Stretcher—Furley's Lowmoor Jacket—Hammocks—Dhoolies—Dandies—Need of Stretchers in the Streets.

The one great essential in all ambulance aid is some means of carrying the injured person from the scene of his injury to the hospital. This is provided in the "stretcher," which consists practically of two side poles, and a sheet of canvas stretched between.

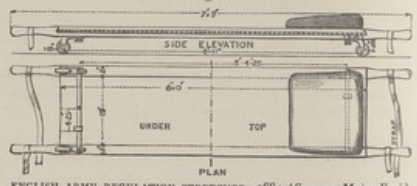
The "Early English" stretcher used in the Crimean campaign was simply of this pattern. There were two side poles kept apart, when open, by two iron rods called traverses, and a canvas sheet for the wounded man to lie upon. If the traverses were unhooked, the poles came together, and the stretcher could be rolled up into a small space. It had no legs, so that, if laid upon wet or stony ground, the canvas did not protect the patient, and there were no slings.

To the invention of stretchers there is literally no end. Their name is legion. Every modification of hinged and folding-up mechanism has been tried, some light and some heavy, and some mere curiosities of structure. It would be impossible to notice them farther.

The present regulation stretcher of the English army is known as "Surgeon-Major Faris's Stretcher." It is most solidly built, and consists of two side-poles of ash, brown

canvas bottom, a pillow, two self-locking traverses, which lock under the stretcher and keep it open. There are four wheels of *lignum vitæ*, on which the stretcher rolls into the ambulance waggon, and which act as legs when used as a camp bedstead, a use to which all army stretchers are liable. It weighs 32 lbs., and costs at the Royal Arsenal, Woolwich, about £3. Carter & Co., 47, Holborn Viaduct, London, can supply it at the same price.

Fig. 8.



ENGLISH ARMY REGULATION STRETCHER, 1884 (*Surgeon-Major Faris*).

To aid the bearers it has two leather slings, one at either end, which the bearers put over their neck like a milkman's yoke, and so relieve their arms of part of the weight.

Fig. 9 is a picture from Surgeon-General Longmore's book of a field stretcher, designed by Baron Percy, and the equipment of the stretcher-bearers themselves is also shown.

It will be seen that the stretcher, when not in use, is divided between two bearers, who, when it is to be used, rig it up by passing the poles through the wooden end-pieces carried over the knapsack, and put on the canvas bottom.

It would be absurd to think that we have in any way arrived at finality in our stretchers. We have little doubt that a stretcher will one day appear, to which the existing pattern will bear the relation of a country cart to a bicycle. The stretcher we may see will not be designed either by an

ambulance amateur or an official artillery carriage-builder, but rather by a skilled mechanical engineer, well acquainted

Fig. 9.

BARON PERCY'S STRETCHER; BEARERS IN MARCHING ORDER.
(*After Longmore.*)

with steel and it uses, and knowing what is needed to be produced. The men who have built our spider's-webs, called

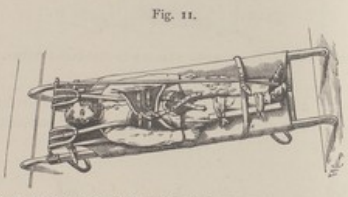
Fig. 10.

THE SAME, WITH STRETCHER FITTED FOR CARRYING WOUNDED.
(*After Longmore.*)

bicycles, must surely be able to construct a light and useful field stretcher. It should be so light as to be carried by one

man with ease when folded up; the side bars or poles should be of steel, so strong as not to yield if used as a camp bedstead. The canvas should be detachable, so as to be easily cleaned, and perhaps carried by the bearer, rolled up like a soldier's great-coat. The traverses should be light, yet strong enough to keep the sides firmly apart. The legs would need careful study, and all the parts should be completely interchangeable. The pillow need only be an empty case, buttoning up, and ready to be filled with hay or grass in the field. The leather slings could be replaced by light steel chains, so strong as to hold up the stretcher and the patient, if the stretcher was hung up in a luggage van for travelling. The weight should not be more than 15 to 20 lbs., if so much.

Fig. 11.



FURLEY'S "LOWMOOR JACKET," FOR USE IN MINING ACCIDENTS, ETC.

While writing of stretchers, we may here describe FURLEY'S LOWMOOR JACKET, which seems to be a singularly useful article. In the shafts of mines, sewers, and other narrow places, it is not possible to remove an injured person in the recumbent horizontal position.

Mr. Furley has designed a jacket which encircles the injured person's chest and abdomen, and which has strong back pieces which run up behind the patient's back, and cross over an iron bar, which is slipped by iron rings over the handles of the stretcher. There is also a strong support passing between the legs, and fastening to the jacket. The legs are kept in their place by a strap—and

additional support is given by a web-stirrup, into which the sound foot can be slipped if desired.

The patient can thus be drawn up vertically out of the mine or sewer, or lowered into a boat, without injury to the wounded part.

Extempore stretchers are made out of rifles and soldiers' great-coats, or the valise may be hung between two rifles and a kind of stretcher so improvised. A number of improvised seats for carrying injured men have been previously pictured—vide Fig. 2.

HAMMOCKS have been frequently used to carry injured persons. They are quite unsatisfactory for such a purpose, as the sides close in very much when slung, and they offer no secure resting-place in case of broken limbs. After the battle of the Alma, many of the wounded were carried to the shore in hammocks slung on oars; but this wretched makeshift is only permissible when, as on that occasion, regular ambulance arrangements were completely absent.

In mountainous countries various methods of carrying sick and wounded in baskets or chairs borne on the backs of mountaineers are in vogue. The patient faces to the rear, and sitting in the chair, is carried over the ground like an ordinary load.

In Eastern countries, where wheeled-carriages, owing to bad roads, cannot travel smoothly, there is an immense variety of means of human transport by bearers. Any one who has travelled in India will remember the many patterns of such conveyances that exist.

There is the Dhoolie, a closed-in litter, carried by four bearers, with two others as a relief. This highly commodious means of carriage has formed the staple sick-transport in all our Eastern wars. Carriage for 10 per cent. of an Indian army is generally allowed during a campaign, and this would imply some 600 bearers with a fighting battalion 1000 strong.

To-day in India the dhoolie-bearer class is gradually disappearing before the progress of railways and horse-conveyances, and it may be necessary as time goes on to

preserve the caste absolutely for military purposes, as around our Indian frontier wars are almost perpetual, and the dhoolie-bearer is much needed.

There are many modifications of the dhoolie in existence, and the number of new dhoolies invented is considerable. Surgeon-Major Bourke, of the Army Medical Department, has invented a dhoolie which fulfils many needs. It can be used as a stretcher, and a hospital bedstead as well as a dhoolie, and the poles and covers of a few dhoolies form also a tent for the sick.

The DANDY, a cot slung from a pole, and carried by two men, with two more as a relief, was much used in the

Fig. 12.

THE INDIAN DHOOLIE. (*After Longmore.*)

second Affghan war, and it will probably be as much utilised in future campaigns.

Dhoolie-bearers accustomed to the plains dhoolie carry the hill dandy with ease.

Palanquins and jhampans are modifications of the dandy and dhoolie, types common in India.

We have in an earlier chapter recommended that stretchers should be kept in every street in our great cities, in a "stretcher-locker," of which the police and certain residents should have keys. Every railway station should also have one, also every guard's-van in all passenger trains. No public school, factory, institution, or asylum

should be without such aid in carrying injured people. Probably many chemists would be glad to keep such stretchers in their pharmacies, and exhibit a notice to that effect in their windows, if any philanthropic society would provide the article.

But in the end, municipal, parochial, or Poor Law district governing bodies will be made responsible for this important work.

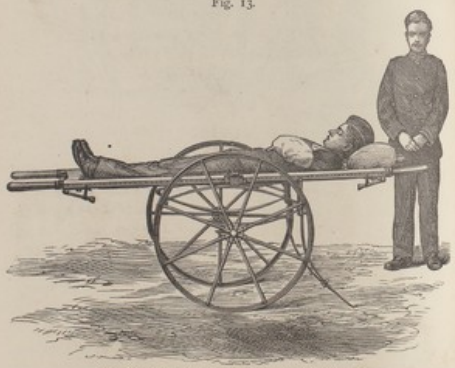
CHAPTER VII.

AMBULANCE SICK-TRANSPORT CONVEYANCES WHEELED BY MEN.

English Military wheeled Stretcher—The Ashford Litter—Neuss Litter with wheeled support.

WITH the view of diminishing the number of bearers and attendants employed in transporting sick or injured persons, various patterns of wheeled-stretchers have been designed. They are mainly of use for civil purposes where

Fig. 13.



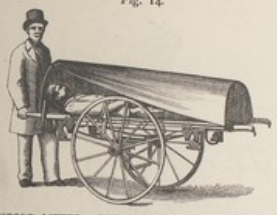
MILITARY STRETCHER ON WHEELED SUPPORT.
(*From Surgeon-General Longmore's 'Gunshot Injuries.'*)

in cities or towns good level roads are available, and the jolting which would be caused by uneven tracks reduced to a minimum.

For military service a pattern of a wheeler stretcher is sealed. The stretcher is detachable from the wheeled support, and when loaded, one man can thus wheel one patient. In the field where battles have to be fought over every kind of broken ground, these stretchers are of little use, and no records exist of their being used to any extent in any army.

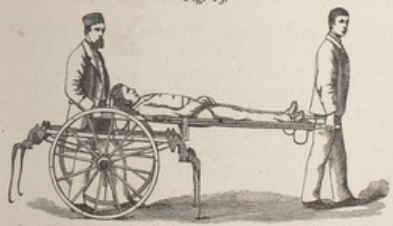
The Ashford litter consists of a folding stretcher with

Fig. 14.



FURLEY'S ASHFORD LITTER. THE STRETCHER, WITH COVER, PLACED ON THE WHEELED SUPPORT.

Fig. 15.



THE ASHFORD LITTER. THE STRETCHER DETACHED FROM THE WHEELED SUPPORT.

pillow and removable cover, resting without any fastening on four small iron crutches, with an under-carriage of two wheels on elliptical springs.

This litter has the advantage of a crank-axle, enabling the bearers to pass with the stretcher between the wheels, so that lifting over the wheels is avoided. The stretcher by itself costs two guineas, and the litter, complete, ten guineas. It can be obtained at the Director of Stores, St. John's Gate, Clerkenwell, London, E.C.

Fig. 16.

ST. JOHN AMBULANCE LITTER, COMPLETE ON WHEELED SUPPORT.

The St. John Ambulance Wheeled Litter. Price £16. Weight: complete litter, 1 cwt. 2 qrs. 14 lbs.; truck, separate, 3 qrs. 7 lbs.; litter, separate, 3 qrs. 7 lbs.

This litter is the invention of Messrs. Neuss, of Berlin, and was first employed by the Prussian *Johanniter Orden* (Knights of St. John), during the Franco-German War, where its practical advantages in alleviating suffering first became apparent. Considerable attention has been paid in the design of this litter to secure an easy and steady position for a patient while being transported in it. The patient does not lie in a completely horizontal posture; his head and back are somewhat raised, and inclined at an

angle with the pelvis and thighs. The head of the patient rests upon a pillow covered with glazed cloth or leather; the back, pelvis, thighs, and legs upon a flexible support of painted sail-cloth. There are two padded supports for the arms and elbows of the patient. A folding sail-cloth hood is fixed to the upper end of the carriage, and can be drawn over the head and shoulders of the patient, so as to form a sun-

Fig. 17.

STRETCHER DETACHED.

shade or protection against rain, without interfering with the free access of air. A cover of sail-cloth is also rolled up, and fastened by two straps at the foot of the litter. This covering, when unrolled, can be drawn up so as to lie under the upper edge of the expanded hood, and be fastened to the upper part of it. By these means the patient, during transport, can be protected against dust or inclement weather on every side. Under the part which is made to support the head and shoulders of the patient there is a wooden receptacle capable of carrying refreshments, bandages, or other parcels, or of receiving any articles belonging to the injured man who may have to be transported to the hospital. To facilitate the litter being

carried upstairs, into the wards of an hospital, or into the narrow alleys of a town, the stretcher is made to be easily detached from the iron frame. When so detached, it is kept off the ground by four short iron legs, which are fixed to the side poles at the head and foot.

This litter can be obtained from the Assistant Secretary, Order of St. John, Clerkenwell, E.C.

Those who desire further information concerning wheeled litters should write to the firm of Lipowsky-Fischer (Manager: C. Maquet) of Heidelberg, for their copiously illustrated catalogue of ambulance equipment of various kinds. It contains a vast number of interesting ambulance and invalid-furniture illustrations.

CHAPTER VIII.

AMBULANCE EQUIPMENTS CARRIED BY MULES OR HORSES.

Need of good Mule Equipment for our varying wars—The English Medicine Panniers—Mule Cacolets—Mule Litters—Ideal Mule-loads for a Field Hospital.

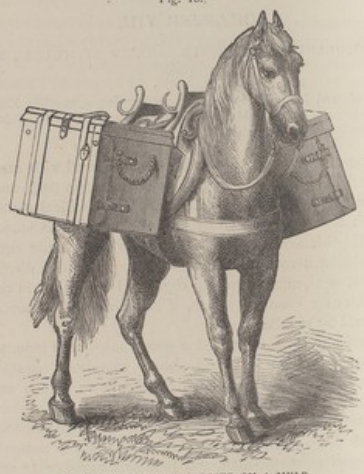
PACK-ANIMALS have always been much used with armies in the field. They can travel on any mountain path, and it is essential to have much of the *military* medical *matériel* of such description as can be carried easily in this manner. The English army is still deficient in good mule equipments from a medical point of view. We have no field hospital equipment regularly organized for mountain campaigns, or for countries which, if not mountainous, are not traversed by regular roads.

Practically if we once had a good mule-borne mountain hospital equipment it would almost completely equip us for our own little wars, for we have only to give a mule pannier to two coolies to carry in campaigns like Ashanti, or to hang two panniers over a mule as in Affghanistan, or to pack four panniers on a Maltese cart for a campaign like Egypt or the Soudan, and to stow away 8 or 12 mule panniers in a field waggon for any European war. If once we could so equip a 25-bed unit hospital, the difficulties of our many wars would be solved; for, after all, a 200-bed hospital only needs eight 25 bed-units of equipment. We would need a pair of mule-panniers completely equipped as a cook-house load. Its pots, pans, and various utensils, complete for 25 men and the load itself, forming a distinct unit. We also need a 25-man clothing-load, viz. towels,

sheets; and feeding-utensils, plates, knives, cups, salt-cellars, for 25 men. Eight such loads would equip a 200-bed hospital.

We also need an "office pannier," containing all the records, stationery books, forms used in war-time. The

Fig. 18.



MEDICINE PANNIERS CARRIED ON A MULE.
(*From Surgeon-General Longmore's 'Gunshot Injuries.'*)

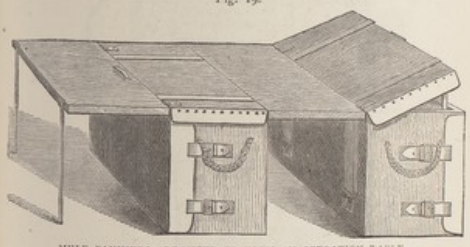
panniers themselves forming a writing table and a seat, as needed.

We also most urgently need a "Conservancy load," consisting of the picks, shovels, latrine-vessels, bed-pans, latrine screens—needed, and so urgently needed, by the sick in war time—the frame to form the latrine seats and to

enclose the vessels on the march. We also need a portable operating table of a simple kind, to be carried by a mule, and our loads of blankets, and waterproofs, could easily be made of suitable bulk for mule carriage, which is about 80 lbs. for each side box, or 160 lbs. to 180 lbs. for a mule.

It is hardly credible that in India, where we have been so long campaigning, that no defined field hospital mule equipments exist. The want of such equipments was much felt during the Affghan war. Towards the end of the same campaign, mule hospitals, as mobile as mountain batteries, were ready with the army, but they grew up under many

Fig. 19.



MULE PANNIERS ARRANGED TO FORM AN OPERATION TABLE.
(*After Longmore.*)

difficulties, as no code exists defining their correct organization.

The English medicine panniers for mule carriage are probably our best unit of medical equipment. They are carried on either side of a mule or pack-horse, and when placed on the ground form an operating table if opened out. They cost at Savory and Moore's, £48 10*s.* per pair.

These articles, which carry only medicines and dressing, should be the model of the unit of the future to which all our field equipments should be reduced. It could then be possible for the staff of a war hospital to carry their own

Fig. 20.

Fig. 21.

MULE PANNIERS OPEN TO SHOW CONTENTS. (*After Longmore.*)

equipment on board ship, with themselves, and so disembark in an enemy's country. To day our equipment is singularly cumbrous. Reduce it to mule units, and all will be well.

For the carriage of wounded two different mule equip-

Fig. 22.

MULE CACOLETS OR CHAIRS. (*From Longmore's 'Gunshot Injuries.'*)

ments are used. Cacolets (*caque au lait*), copied from the Pyrenean dairy folk, are really slung chairs hooked on to a pack-saddle, and the wounded sit on either side of the animal. A pair of cacolets weigh about 56 lbs., and cost about £5 per pair.

The mule litter, or *litière*, is really a slung couch carried

on either side of a mule, and supports a person at full length lying down. A pair of litters empty weigh 106 lbs., and cost about £19.

Opinions differ as to the value of both those articles, and doubtless much depends on the training of the animal used. If the mules be unbroken, great risks occur to the

Fig. 23.

MULE LITTER WITH WOUNDED SOLDIER. (*After Longmore.*)

sick, and many men have been thrown out by a kicking animal.

During the recent Egyptian war a new departure was made in this branch of ambulance work, by utilising horses for this purpose, and it is to be hoped that trained cavalry horses will in future be largely utilised instead of mules for our cacolets and litters, leaving mules for pack-carriage proper.

Every regiment of cavalry in our army should have two

cacolets per troop regularly fitted to its troop-horses, and four or more litters for the regiment. At present our cavalry ambulance equipment is very defective, and it will be interesting to study foreign systems of help to wounded troopers.

If English mechanical genius could solve the problem of how to carry our severely wounded men lying at full length along the back of a horse, a great boon would be conferred on humanity.

There would be difficulty in achieving this arrangement, but it should not be impossible. Any one who desires to bestow a boon on an English army should offer a prize for the best cooking-appliances load capable of being carried by a mule, able to utilise wood as a fuel, and divided into two portions for either side of an animal, neither weighing beyond 80 or 90 lbs. It should carry all things needed for cooking for 100 men, or say 50 men on either side.

A "conservancy" load carrying all latrine arrangements would also be a real boon to the sick soldier. The other articles of nursing and feeding appliances are not difficult to stow away in any empty mule pannier-box that may be sealed as a pattern.

Water supply is always a difficulty in mountain campaigns, and for this purpose either small barrels are used, fitting on the pack-saddles of the mules, or large leather bags, called in India *puckalls*, are used. These are slung over the pack-saddles, and so water is carried. It is advisable to spread a tarpaulin over the saddle, to save it from damage by the water. A pair of iron tanks made to fit the mule-saddle, and made available in camp by adding a wheel and a pair of handles, might be utilised as hand water-barrows. All tents used for mountain campaigns should have their poles cut and socketed for use, so that in passing through defiles the ends may not catch against the rocks. In all that concerns mule equipment for warfare we have in the Indian mountain batteries singularly perfect models for us to copy. A more workmanlike unit does not exist in our English army.

CHAPTER IX.

CAMEL CARRIAGE.

Camel Kadjawas—Bryce's Camel Dhoolie.

CAMELS are used throughout the whole of the East for the carriage of human beings as well as goods.

For the carriage of sick they have been utilised; but they are not an agreeable means of travelling for a sick man.

In the Affghan campaign, several convoys of sick and

Fig. 24.

CONVOY OF SICK IN CAMEL KADJAWAS, AND IN BRYCE'S CAMEL DHOOLIE. (*After Longmore.*)

wounded were sent down in camel *kadjawas*, but they are more useful for convalescent than for those actually sick. Here is a picture showing a camel convoy on the line of march, and one of the camels has a pair of Bryce's camel

dhoolies—an attempt at providing lying-down accommodation for a sick man on the line of march.

The fact is, no study has of late been given to devise suitable camel-carriage for the sick, and it is in an entirely primitive condition. It should not be impossible to devise a well-balanced camel-litter or dhoolie, in which a sick man could lie at full length, and which by some suspension system would counteract the swinging motion of the camel. When it is remembered that to carry two sick men in two dhoolies twelve bearers are needed, and that all their kit has to be separately provided for by other means of transport, and that if two or three bearers get sick, the whole gang break down, it is essential not to lose sight of some means of utilising camel-carriage for Eastern campaigns.

CHAPTER X.

WHEELED AMBULANCE EQUIPMENT AND SICK-TRANSPORT VEHICLES DRAWN BY HORSES.

Ambulance Equipment Waggons—The Surgery Waggon of the Bearer Company—The Pharmacy Waggon of the Field Hospital—The Store Waggon of the Field Hospital—The Kitchen Waggon of a Field Hospital—The Water Cart—The Laundry Waggon—The Electric Light Waggon—The Army Regulation Sick-transport Waggon—Its construction—The Austrian Red Cross Sick-transport Waggon—The United States Rucker plan of arrangements of Seats and Stretchers—Civil Ambulance Sick-transport Waggons — The Howard Sick-Transport Waggon — Davy's Ambulance Waggon—The Furley Sick-transport Waggon—The Atkinson-Philipson (Newcastle) Sick-transport Waggon — Infectious-disease Sick-transport Waggons.

In all civilised countries where made roads are found, wheeled vehicles drawn by horses will always be the most important element in conveying aid to the injured, and in conveying the injured themselves to a place of shelter.

These wheeled vehicles divide themselves into two main classes: viz. ambulance *equipment* waggons, and ambulance *sick-transport* waggons; the former being the conveyance used to carry the supplies, medicines and appliances needed for the relief of the sick, the outfit of the hospital, the medical stores, the water supply, the cooking arrangements, and all the various details of hospital interior economy; while the ambulance sick-transport waggons are intended for the carriage of wounded or diseased men only. We shall deal with the ambulance *equipment* waggons first in order.

A. Ambulance equipment waggons.

The various waggons included under this head may be detailed as follows.

1. The Surgery Waggon of the Bearer Company.
2. The Pharmacy Waggon of the Field Hospital.
3. The Equipment Waggon of the Field Hospital.
4. The Kitchen Waggon of the Field Hospital.
5. The Water Cart of the Bearer Company and Field Hospital.
6. The Laundry Waggon of the Field Hospital.
7. The Electric Light Waggon of the Ambulance Column.

The Surgery Waggon of the Bearer Company.

If we were asked to say what vehicle in the medical corps of an army in the field is, after the ambulance sick-transport waggon, for the wounded soldier the most essential, we should say the surgery waggon of the bearer company.

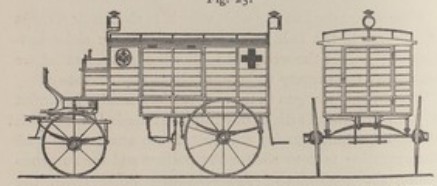
It is in this waggon that in all modern armies is carried those first essential articles of equipment needed to establish the all-important dressing station. These articles would be the operating tent to shelter the patient and the surgeons during the operations; the operating table itself, the surgical knives and bandages, the all-important cooking utensils for the life-saving soup, and such blankets as may be needed to shelter the wounded if they lie on the field at night.

The reader must remember the functions of the bearer company, and must study its position in the war diagram forming the frontispiece. It is to the bearer-company dressing-station all the divisional wounded are carried for further dressing and for food. If this waggon be incomplete, the wounded in their hour of supreme suffering will not be suitably cared for. If it be complete, all that is urgently needed by the surgeons will be there.

In our army we use an ordinary general-service (lock-under) waggon, used in the everyday transport work of the service as our surgery waggon. The vehicle is identical, it is its contents which are peculiar.

All the equipment is detached, and is merely packed in boxes and baskets into the waggon, and in this procedure we must all agree. So peculiar and so different are all our English wars, that all specially fitted waggons must be reduced to a minimum, and our loads of every kind be reduced to the mule-carrier standard, and so packed into varying waggons. The waggon then needs no special description; it is made to take to pieces and to pack up on board ship; it has four wheels (two lock-under), and is drawn by two horses, and may either be driven postillion fashion or from the box. It costs at Woolwich Arsenal,

Fig. 25.



SURGERY WAGGON OF THE AUSTRIAN RED CROSS SOCIETY, BY LOHNER OF VIENNA.

empty and unequipped, £127 12*s.* and weighs empty about 17 cwt.

The Operating Tent supplied to the surgery waggon is an ordinary bell tent of the army pattern, price £5 5*s.* It is light, it is true, but it has no other special qualifications. It is quite unfit for operating in, for the doctors have not room to turn in it, and the central pole is in the way.

In the German service a special pattern of "operating tent" is issued; it has a ridge pole, two upright poles, and can have one side raised like a verandah, forming an open shelter for the operating work.

Fig. 25 is a picture of the surgery waggon of the Austrian Red Cross Society, made by Lohner of Vienna. By comparison with our English surgery waggon it is light

and very easily moved. It does not take to pieces like our waggon. It costs, without any fittings, 750 florins, Austrian. We have here a plate of the same waggon, with its operating tent pitched over the waggon, turning the whole space into an operating theatre. This system of arrangement is criticised, as of course we cannot always secure ground suitable for the waggon and the tent. But the plate shows the size and character of the operating tent and how much more suited it is for the surgeon's work. Some such tent is needed in the English service. The price of this Austrian tent is 400 florins, Austrian currency.

Fig. 26.

SURGERY WAGGON OF THE AUSTRIAN RED CROSS SOCIETY, SHOWING THE SPECIAL OPERATING TENT PITCHED OVER THE WAGGON.

The Operating Table.—Two kinds of operating tables for ambulance work exist in our service; one pattern for the bearer company, and one pattern for the field hospital. The latter, which costs 10 guineas and weighs 77 lb., is very elaborate, and is modelled on civil peace-hospital operating tables; the bearer-company table is like an ordinary camp table, folding up in a compact way, and it seems quite useful enough for war work. It can be used as an ordinary office table if not needed for its special duty, and this is an important fact to be remembered, for, despite the popular idea to the contrary, army surgeons are not always operating, and a table that would be interchangeable seems to us to be more generally useful for war work. Price of operating table of bearer company, £3 10*s.*; weight, 52 lbs.

The instruments, medicines, medical comforts, cooking and feeding equipments are all carried in eleven separate boxes or baskets, which fit in two layers into the waggon. Some of these boxes and baskets are of extraordinary dimensions; the F basket, which contains the reserve dressing, being amongst baskets a very leviathan, and not suited for many of our frontier wars. In the ideal surgery waggon, every box and basket should be ruthlessly cut down to mule-pannier size (80 lb. weight), the number of them if needs be increased; but with our petty wars we must have a general service equipment, and our loads must be available for coolie carriage, mule carriage, &c., and waggon carriage. This can only be done by choosing a small general service unit of size and weight, and fearlessly compelling all loads to be modelled upon it. Such a surgery waggon with uniform mule-pannier loads can be very easily produced, as only a few baskets and boxes need change.

It is impossible to dwell too much on the need of having efficient and ready means of cooking broths for the wounded. This battle-field aid is all-important, and whatever develops it should be encouraged. The baskets of the bearer-company surgery waggon, empty, cost £46 15*s.*, and are supplied at present by Savory and Moore, New Bond Street, London.

The A, B, and C canteens cost about £23, and the two medical-comforts boxes about £7 5*s.*

2. *The Pharmacy Waggon of the Field Hospital.*—This is found in most European armies. It is the general medicine store and dispensary of the field hospital, and the waggon used in our army is singularly complete in every detail, and well worth studying. It is somewhat like a baker's cart with covered-in roof, and has numerous drawers and slides holding drugs and dressings. There is a dispensing table at the rear of the waggon, and a pent-house cover over it. Its price without the drugs or instruments is about £217. In this, as in all war equipments, we must measure all things by our peculiar campaigns. We English, with all our humanitarian ideas, are the great fighting nation of the world. Our temple of Janus need hardly have any gates, so rarely do they need closing. This constant warfare means constantly changing war conditions, and hence we need again the interchangeable unit. However much we may wonder at and admire the pharmacy waggon, we seem compelled to say "C'est magnifique, mais ce n'est pas la guerre." It is heavy (weight 18 cwt. 3 qrs. empty), and perhaps top-heavy. But its prime defect is that its contents cannot be taken out and loaded on mules, or carried by coolies, if the waggon breaks down, and these are the true tests for our varying wars. Probably several sets of mule medicine-panniers, containing the same amount of drugs, would be more generally useful, and would do for Egypt, Ashanti, or Affghanistan, and would suit, when packed in a waggon by the dozen, for a European campaign.

3. *The Field-Hospital Store-Waggon* contains all the bedding, feeding utensils, and cooking arrangements for fifty sick. It is a four-wheeled, two-horsed, "lock-under," general service waggon, with some slight alterations to suit its special work. In this, as in all war-equipment waggons, the 80 lb. mule-pannier unit should be as far as possible the rule. Price, £151. Weight, 20 cwt. 34 lbs.

4. *The Kitchen-Waggon of a Field-Hospital* is a special waggon which does not exist in the English service, but is found in several European armies, for cooking for the sick and wounded. It is generally made of two sizes, one to cook for 200 men, and the larger size for 400 men. The former is an arrangement of boilers, with a furnace or grate below, mounted on wheels, and drawn by one horse. The cooking is done in the open air, and can be done on the move as the column marches. In the larger size waggon the cook stands in the waggon, and it is really a small cook-house on wheels. This latter vehicle is for English wars quite out of the question, but it is probable the 200-unit cooking or kitchen-waggon could be utilised if made to pack on mules. Those desirous of studying this

kitchen-waggon question further will find pictures and description of both such vehicles in the ('Freiwillijer Sanitats-Dienst in Kriege'), being the official handbook of the Sovereign Order of the Knights of Malta (of the Bohemian Langue.) Vienna, W. Seidel & Sons, 1879. The cooking-waggon or portable field-kitchen in use by the Swiss medical service seemed to me to be light and portable. It may perhaps be in the Exhibition.

5. *The Water-cart of the Bearer Company and Field-Hospital.*—Water-carts of the general army pattern are supplied to field-hospitals and bearer-companies. They are simply wooden hogsheads (108 gallons) on a wheeled stand, Maltese cart (mark III.), very like ordinary civil water-carts. They are drawn by a pair of horses. Every field-hospital and every bearer-company has two such carts. In our Eastern wars skins are largely used for water-carriage, and the human water-carrier, or *bihisti*, is a conspicuous figure in every Eastern campaign. He carries water in a goat-skin *masak* borne upon the hips. He takes his place in the fighting-front of the line, and is often one of the most popular men attached to a company.

The water-barrel of the English army water-cart is very difficult to cleanse within—this can only be done by taking out one of the heads. The number of taps also is not sufficient to ensure rapid filling of many water-bottles. In warm climates, if not in daily use, the hogshead warps, and is not serviceable for some time, until the wood swells again.

Captain J. Jones, of the Royal Engineers, has designed a water-cart consisting of a galvanised-iron tank, mounted upon a Maltese cart (mark III.). It contains 119 gallons. It has a man-hole with cover, for filling and cleansing the tank. An iron partition divides the tank within into two compartments, and the partition is pierced with holes, which allows the water to pass through gradually, thus breaking the rushing of the water about the waggon when the tank is partly full. There is one large tap and six small ones, thus allowing several water-bottles to be filled

at the same time, which is of great importance when many men have to be supplied.

For bearer-company work, and indeed for field-hospital service, a certain number of galvanised-iron cans with spouts should be hung on to the water-cart, for aiding in distributing the water to the bearers to fill their water-bottles; a few drinking-cups of metal might also be attached by chains to the cart, as men drink slowly out of their bottles, but quickly out of open cups.

At the School of Engineering at Chatham water is distributed to the working parties in small kilderkins mounted in wheel-barrows. They are really miniature water-carts. A few such hand water-carts would be useful with a bearer-company or field-hospital. It should not be difficult to make an iron tank of such size as to be utilised for a mule pack-saddle water-barrel, to be borne in pairs on a pack-saddle, and to which tank a pair of removable iron handles and a wheel might be attached, converting the whole in a hand water-cart.

This wheelbarrow system could also be applied to the conservancy arrangements as suggested by Dr. Veale in the Egyptian campaign. The barrow to be utilised as a latrine receptacle capable of being wheeled away from the camp when necessary to be emptied, and on the march forming a mule load, or packing into the store-waggon of the field-hospital. We are merely on the threshold of many such inventions, which will be intensely useful in peace as well as in war.

6. *The Laundry-Waggon of a Field-Hospital.*—No one with any war experience will controvert the opinion that an efficient laundry with a good working staff is essential in all war-hospitals, be they field, general, or ship medical establishments.

We learned in the long Afghan campaigns to value the washerman and the conservancy man in the very highest degree. For sick men to become infested with vermin is lamentable, and against such suffering efficient laundry work is the only safe defence. In all general war

hospitals we must ever regard the laundry as needing very accurate and detailed organization before the army takes the field. Dr. Parkes dwells with great urgency on this point. Dr. Bleckley, in his hospital-ship report, also refers pointedly to it, and all war surgeons must echo the cry for laundry efficiency.

Up to the present time we can find no record of any army having a war-hospital mobile laundry, or laundry-waggon. European armies campaigning on the European continent can find in the conquered districts civil labour ready to do this work. The English medical service in this as in many other points is entirely dependent on its own previously organized resources. We find no local aid on Crimean steppes, in New Zealand fern-thickets, on Afghan mountain sides, nor midst the dense Ashanti jungles. We must in all cases arrange our laundry staff in England and carry them to the seat of war. We shall be the first nation probably to equip a mobile laundry-waggon, combining boiler, washing-machine, and drying closet. Dr. Parkes mentions that Mr. Hooper, superintendent of the Renkioi Hospital during the Crimean campaign, designed a laundry-waggon to accompany troops in the field. This was in 1856, and washing-machines were then in their infancy. To-day there would be nothing easier than to design a portable boiler, washing-machine, wringing-machine, and mangling-machine, all in one waggon; but as to the drying-closet, one is not so clear, but doubtless this too is not impossible. There may be some laundry-waggons in the Exhibition. It is difficult to over-rate the need of such an article of equipment with war hospitals. It should be so made that, on arrival in camp, the horse which drew the waggon should also furnish the motive power for washing the clothes, somewhat like a mill-horse system.

7. *The Electric Light Waggon of the Ambulance Column.*—Baron Mundy of Vienna, the well-known ambulance organizer, has applied the electric light to the searching of the battle-field at night for wounded.

A four-wheeled carriage contains the necessary apparatus, including engines and dynamos. It is quite mobile. The whole apparatus is manufactured by *Sautter-Lemonier*, 26 Avenue de Suffren, Paris.

Several demonstrations of this adaptation of the electric light took place at Vienna during the Electric Exhibition, and it is not unlikely we may have such a display in London during the Exhibition.

For military purposes in its wider sense such a waggon ought to be very useful, and it will probably be found to be much used in all future wars.

Military Ambulance Sick-Transport Waggons.

In a mere primer such as these pages are intended to be it would be quite impossible to deal at any length with the voluminous subject of military sick-transport waggons. Those who desire to drink deeply of the stream of literature on this subject are referred to Surgeon-General Longmore's classic and exhaustive work on the transport of sick and wounded troops, published by authority and to be obtained at any military bookseller. Price 5*s*. In this work every variety of waggon of this and every other country is fully dealt with by descriptions and illustrations. Certain conditions are needed in English war sick-transport waggons, which Surgeon-General Longmore summarises as follows:—

1. There must be suitable springs, to diminish the shocks and force of concussions in passing over bad roads.
2. Provision must be made for men lying down as well as sitting up—that is, for seriously ill and for convalescing cases.
3. The carriage must take to pieces for embarkation in ships for foreign wars.
4. All parts of all waggons should be interchangeable.
5. Durability and lightness are essential in proper amount.
6. Water must be carried in the waggon; also stretchers,

and some articles of surgical dressing and restoratives. Also means of carrying the arms and kit of the sick.

7. It must be covered from the weather, be it hot or cold.
8. It should be easily loaded with its sick.

Fig. 27.

ENGLISH ARMY SICK-TRANSPORT WAGGON, SHOWING THE FARIS' STRETCHER RUN IN ON THE FLOOR OF THE WAGGON.—CENTRE BOARD NOT SHOWN IN ENGRAVING.

The English Regulation Sick-Transport (Ambulance) Waggon has four wheels. Two of large size (56 inches diameter) behind, and a smaller pair (36 inches in diameter) in front, locking under the carriage, and thus enabling it to

turn round on a small axis, and greatly obviating the risks of upsetting. Waggons which have equal wheels before and behind are called "equirotal waggons." The body has a floor space, 9 feet 4 inches long by 5 feet 3 inches wide, and rests upon the axletrees by semi-elliptical springs, with a check-spring under the centre of the waggon.

The wooden sides are about 20 inches high, and from them run up from sockets three iron standards on either side, supporting an angular framework of ash hinged along the centre, forming the waggon roof, which, with the sides, is covered by white canvas, dropping as curtains over the waggon, and forming also a hood to protect the driver and patients in front, and curtains to shield those sitting behind. A canvas curtain also closes the front of the waggon behind the driver's seat, preventing wind and rain entering the waggon from that end. The interior of the waggon is divided longitudinally by a partition 14 inches high, which separates the floor into two equal portions, and these portions are occupied by two stretchers of the ordinary "Faris" pattern, which are run in on their wheels into the waggon. Besides these lying-down arrangements for two patients, three individuals, viz. the driver and two patients, can sit on the front driving seat; and three more, two patients and an orderly, can sit on a hind seat on a level with the floor of the carriage, with their legs hanging out, and protected by a tail-board and leather apron. A sliding partition of wood is placed across the waggon near the rear, acting as a backboard for those sitting on the hind seat. Both seats have leather-covered cushions. Water is carried in a tank (9 gallons) under the body of the waggon, and there is also a corn locker at the rear of the floor of the waggon. A ladder, for use of the patients entering the vehicle, is carried along the sides of the waggon. There are two lockers, one on either side of the sides of the waggon in front, one being used for restoratives, and the other for tools, &c. A double-screw brake worked by a cranked lever handle acts on the hind wheels; a drag shoe is also carried.

The rifles and kits of the sick are placed on the floor of the waggon. The waggon weighs about 17¾ cwt., empty, and with eight persons and their kits, 30 cwt., and costs at the Royal Arsenal £186.

For shipment, the vehicle takes completely to pieces, the iron supports, and the roof come off, and the wooden sides are likewise collapsible. The wheels are taken off and the tail-board, and the whole can be packed into a ship-space of about 3½ tons. The waggon is usually drawn by two horses, and can either be driven, by pole or shafts, from the seat in single or double harness, or by a postillion riding one of the horses.

The existing new-pattern waggon which we have just briefly described, also differs from the old-pattern waggon by not having a special "waggon-stretcher." The waggon-stretcher was a special article to which the wounded were transferred from the field-stretcher, and then run into the waggon. Surgeon-Major Faris having adapted wheels to the field-stretcher, it is alone used, and runs in along the waggon-floor without the patient being shifted in any way. Spare field-stretchers to the number of four are carried in each sick-transport waggon, rolled up, and suspended by straps from the iron standards on either side.

This waggon cannot be regarded as final of its kind, and we shall refer to its interior arrangement and the system of carrying its patients in due course, but it is in every way a great improvement on the original patterns of waggons introduced after the Crimean campaign.

It must always be remembered that all military carriages in the English service are built by the same department that construct the gun-carriages of the Artillery.

As a result of this system, our ambulance sick-transport carriages are heavier and more weightily constructed than is needed. No doubt the officials charged with their construction can produce many examples of broken vehicles which have given way before the shocks of field service. But it is to be remembered that if one sees carriages constructed on artillery lines, the tendency is to

use them in the rough artillery fashion, and to so load them, and so drive them, as if they were horse artillery gun-carriages taking a "bee line" across country. This very rudely strong construction then probably defeats its own end, and lighter carriages, built like the tradesmen vans we see so largely used in business work, would probably never be so heavily loaded, nor would the drivers attempt to thoughtlessly cross country with them.

If one had the power, one would like to withdraw all ambulance-carriage construction from the Gun-carriage Factory, and place it in the hands of civil coach-builders, explaining to them what was needed for us, and offering a prize for the most suitable article.

It is absurd to think that the mere fact of having to take a vehicle to pieces for shipment should necessarily handicap its construction. Such needs could easily be met by civil coach-builders, and no doubt many new combinations would be seen.

The National Aid Society, with its blank cheque on the wealth and philanthropy of the public, might well offer a prize for such a vehicle.

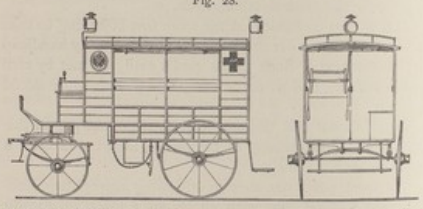
We must point out then in criticising our military sick-transport waggon, that, with all its huge space, practically only two seriously wounded men can be carried lying down, and that four more slightly wounded are carried, two in front, and two in the hind seat of the carriage. Can we consider this as a perfect waggon? Can we consider that a seat with the driver on a wet or snowy day or night is a suitable place for a wounded or sickly man?

The verdict would frankly be no. Nor can we consider the hind seat, with its apron and tailboard, a very desirable place for delicate men in bad weather, apart from its back-board blocking up the thoroughfare or free entrance for the attendants into the sick men lying within. In point of fact, the two patients with the driver would be frozen with the cold, and the patients behind completely stop the way to allow the orderlies to feed or supervise the serious cases within.

These defects have then to be dealt with, and they point to the absolute need of arrangement for four lying-down patients, or two lying-down patients, with four others sitting in omnibus fashion, well protected within the vehicle. This arrangement would leave the driver's two seats available for carrying the nursing orderlies of the hospital, and also the hind seats for the same purpose.

It is absolutely essential to remember that if we make our nursing orderlies march, without any carriage being given them, they become so wearied as to be unfit for work on arrival in camp—the very time when doctors' and

Fig. 28.



SICK-TRANSPORT WAGGON OF THE AUSTRIAN RED CROSS SOCIETY, VIENNA, BY LOHNER & CO., VIENNA.—CARRYING FOUR PATIENTS LYING DOWN, OR TWO LYING DOWN AND FOUR SITTING OMNIBUS FASHION.

orderlies' work begins. Of course, the seats we speak of would always be available for sick or wounded in great emergencies, but for routine purposes the interior of the waggon should be ample and sufficient.

Let us first glance at the construction of some foreign waggons.

The sick-transport waggon of the Austrian Red Cross Society, built by Lohner & Co. of Vienna, seems a very lightly built yet strong vehicle. Its whole construction is more after the fashion of the hickory and steel combinations of America than of our artillery-waggon-like structures. At the Berlin Exhibition the waggons built by this well-

known Viennese firm seemed to be the lightest in construction of any present, although practically all Europe was represented, England excepted.

Any who desire to see the various designs of ambulance vehicles made by this house should write to Lohner & Co., Hofwagenbrik, Vienna, Austria. Price of this sick-transport waggon, 850 florins; cost of packing for London, 40 florins; transit cost, viâ Hamburg, 200 florins.

We are not able to give absolute data of weight of this waggon, but the whole impression given was one of extreme lightness. It does not take to pieces for embarkation, as that is not a factor in Continental waggons; but it is probable that this packing-up difficulty is a mere bugbear, as any coach-builder should be able to simplify his construction so as to let the structure be easily taken to pieces and set up. The whole of the woodwork seems very light, the heavy hind seat and tailboard is absent, and the whole style is like a private omnibus rather than an ammunition waggon.

Four stretchers for seriously wounded cases can be carried, loaded with patients; but if this is done, the entire interior of the waggon is filled. These four are carried in this way: two suspended above, and two below on either side of the waggon.

The mode of running in the stretcher, always difficult with us, is simple.

Halfway up the sides of the waggon runs a narrow iron rail or tramway, about a quarter of an inch wide; a similar tramway is supported down the centre of the waggon by a central standard of iron. On this tramway on either side runs four tiny wheels, which run easily on the narrow rails. From these four wheels hang four leather loops.

When a patient comes on the stretcher, the four wheels and their dependent loops are drawn to the rear of the waggon, and the handles of the stretcher slipped into the pair of loops belonging to the right or left side, and the little wheels are then run down the tramway, and the stretcher dependent from them glides into its place, the

rear handles being fitted into the rear loops. This method is repeated on either side, and at the top of the sides is a similar tramway which takes the two upper stretchers, thus holding four in the interior. If two patients are carried lying down, one above the other on one side, the opposite side can be used like an omnibus seat for four or more patients, sitting in an ordinary omnibus fashion—a most important arrangement; sheltering them from the weather, and allowing the attendant to pass in, to nurse the serious cases if needs be.

It must also be remembered that in war and in peace many men are not seriously ill, but want suitable conveyance, only seated. Our English waggon constantly has its interior empty if there be no lying-down cases, but owing to the absence of any removable omnibus side-seat system in the interior, the invalids must either sit with the driver, and be exposed to cold and wet, or with the hind-seat attendant, also an uncomfortable position.

The Rucker plan of interior arrangement of a sick-transport waggon is very interesting. It was favourably reported upon by the United States Army Medical authorities. Four patients can be carried lying down, or eight or ten sitting in omnibus fashion. No. 1 (Fig. 29) shows the carriage arranged as an omnibus for eight or ten men, the seats being along the sides of the waggon. In No. 2 the seats have been lowered to the floor of the waggon, ready for two seriously ill cases, and the backs of the seats have been raised to a horizontal position to receive the two stretchers carried previously suspended from the roof.

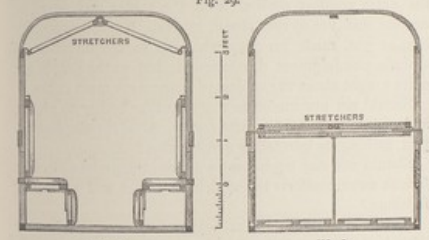
Both these systems seem to be rational and common-sense. A waggon carrying only two serious cases is not the best for the great demands of war, and the alternative omnibus system of side seats is absolutely essential for peace work, and for the sick convoys which in war time contain many convalescent men who, while not needing lying-down space, could not sit on a coach-box in bad weather.

It will be seen, then, the lines on which change might be made in our waggon.

First of all, a definite removable omnibus side-seat system, either of the Rucker or Lohner type, is as essential as it is easily done. It will be a great boon to the soldier.

Second: while maintaining, as at present, the two-wheeled stretchers on the floor of the waggon, a tramway of iron might be fastened to the existing iron standards, and a

Fig. 29.



NO. 1. NO. 2.

CROSS SECTION OF THE RUCKER WAGGON.

No. 1, arranged for patients sitting. No. 2, arranged for patients lying down; the seats being detached, lowered, and acting as stretchers. The back of the seats being raised, and supporting two stretchers brought down from the roof.

central standard erected in the waggon. Along this tramway small wheels with dependent loops, after the Lohner system (Austrian Red Cross), might be placed so as to run in two upper stretchers, making a total of four lying-down patients' spaces.

In everyday work we would find that two stretchers on one side would be used, and the omnibus side-seat on the other side would be simultaneously utilised. Few will deny that so simple a change will be fraught with comfort to the sick. The seats with the driver and the

hind seat can then be utilised, if needed, for the nursing staff, for which they alone are suited.

It should not be impossible to devise a sick transport-waggon, which, when not in use, could be completely dismantled; its seats being utilised in the field-hospital tents as seats or benches; its sides as tables, its cover as a *tent d'abri* for the driver, its pole for a flagstaff, and its water-tank as a water-tank. In this way the exposure to the sun and the rain, which in war time injures greatly all vehicles, might be minimised, and the sick benefited by the extra comfort derived from the tables and seats, so needful, and yet so ever absent in war. English ingenuity has, as yet, made no step whatever in the direction of ambulance-equipment development; but as the people get more taught about the subject, development must come.

Should not our medicine-waggons take bodily to pieces, and go in under cover as part and parcel of the dispensary-tent, making up into tables and benches?

Should not our equipment-waggons themselves likewise furnish extra comforts to the sick, as tables and articles of furniture?

Should not every hospital-waggon of every kind carry with it its share of the hospital staff. The storekeeper seated on the store-waggon, the dispensers on the medicine-waggon, the watermen on the water-cart, and with the bearer company, should not the omnibus arrangement of the interior of the sick-transport waggon be in war time, and in the urgent need of rapid advance, utilised as a means of carrying the ambulance-bearers themselves to the scene of action? Just as a horse-artillery battery can move more quickly than a garrison battery, so should a bearer company be able to move rapidly to the field of action. This is certain to be one day the rule.

It is thus that gradually the noble dreams of Larrey and Percy, and the wishes and aspirations of those hopeful English army surgeons who lived in the far-away past, will one day be realised.

The one way, the only way, to achieve it is to tell the nation our wants, and to teach the people how to be humane. That good work once done, all the rest will assuredly follow.

Civil Ambulance Sick-Transport Waggons.

For civil ambulance sick-transport waggons, such as would be needed for municipal or rural work, the requirements are different from what is essential for military work. In the first place, the carriages need not take to pieces for embarkation, a difference affecting the character of the structure.

Secondly, the carriage can be made with a crank-axle, that is, one which sinks much lower than the height of the centre of the wheel, enabling the waggon-body to ride at a level near the ground; this is seen in Dr. Howard's ambulance transport-waggon.

Thirdly, the whole of the fittings can be of a more luxurious character in civil conveyances, and lightness can be carried to a very marked degree.

Howard Ambulance Sick-Transport Waggon.

Dr. Howard's sick-transport waggons are now fairly well known to the public. They are the waggons used by the London Ambulance Service, and are to be found at the Fulham, Stoke Newington, and Lambeth Police Stations, as before mentioned.

It is practically a little apartment on wheels, 6 feet 6 inches by 4 feet 1 inch, in which on a sliding litter a patent can lie, with an attendant seated beside him. The vehicle can be placed on a railway truck or steamer without difficulty. It is drawn by one horse, and is very light, owing to the crank-axle the floor of the waggon is within 15 inches of the ground, and the tail-board drops down to form a step halfway between the distances. The hind wheel is large, and is in the centre of the vehicle. The floor is below the centre of motion, and the spring from which the body of the carriage is suspended is a very long semi-

ellipse. The four wheels have rubber tires. The entire carriage turns on its own axis. Beneath the driver's seat

Fig. 30.

DR. HOWARD'S AMBULANCE SICK-TRANSPORT WAGGON. (External view.)

Fig. 31.

DR. HOWARD'S AMBULANCE SICK-TRANSPORT WAGGON.

is a box for surgical appliances, and there is an opening to it from the interior of the carriage. Shafts and poles are

supplied, and either one or two horses may be utilised. In the interior the right half of the floor is occupied by a light tramway, with india-rubber roller tires. The tramway rests on four elliptical springs, the pair at the head being 6 inches higher than those at the foot. Between the side of the tramway and the side of the vehicle are india-rubber buffers. Resting upon the india-rubber rollers is a light

[Fig. 32.

DR. HOWARD'S AMBULANCE SICK-TRANSPORT WAGGON.

(*a a.*) Tramway. (*b b.*) Rubber rollers. (*c c.*) Counterpoise springs. (*d d.*) Litter. (*e e.*) Sliding handles. (*f.*) Attendant's seat. (*g g.*) Tailboard. (*h.*) Folding stretcher. (*k.*) Suspension loops. (*m.*) Supporting bar for police stretcher. (*p p.*) Patient's aid straps. (*s s.*) Lateral buffers.

cane-bottomed litter with sliding handles. Upon the litter is a thin hair-mattress and pillow.

The front litter-bearer walks into the carriage, and rests the litter on the rear roller, the rear bearer then pushes in the litter into position. A suspended strap is for the patient to lift himself up if desired, and a corresponding strap at the lower end may support a fractured limb.

The other half of the interior has in it a seat for the attendant, and is otherwise clear at ordinary times; but if a second patient needs to be carried, a stretcher is kept in the roof of the carriage, and can be lowered and suspended by loops hung from iron supports in the floor, and lies at the same level as the left-side litter.

If four patients have to be carried, two other stretchers are needed, and these rest with their front handles on an iron bar, running across the back of the front of the carriage, and the rear handles rest on the iron-bound top of the tail-board.

For ventilation and lighting, openings covered by canvas curtains exist, and doubtless for our climate some of the openings should be covered in by light wooden shutters.

If desired, the carriage can be cleared out of all its contents, and will remain available for any ordinary carrying purposes.

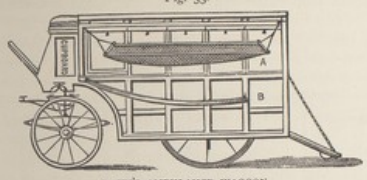
The price of this carriage is about £60, and it is made by the Alexandra Carriage Works, 12, Long Acre, London, W.C., from whom no doubt plates and price-lists could be obtained by any persons enquiring on this subject. A much smaller size of this waggon is made, to hold a single patient, without room for any attendant, and to be drawn by a man, or by a donkey or pony. It seems to me to be very useful for village work, and the vicar of Stepney, who has one for use in his parish, writes favourably of it. Its price is £40, from the same makers: with shafts the cost is £45.

Both these classes of waggons may be supplied to suitable districts in the London Metropolitan district by the London Ambulance Service as a philanthropic work, and applications for further information should be addressed to the Honorary Secretary of that Service, A. H. Haggard, Esq., London Hospital, Mile End, London, E.

Davy's Ambulance Sick-Transport Waggon.

Mr. Davy, one of the surgeons of the Westminster Hospital, London, has constructed an ambulance transport carriage, in which he utilises slung hammocks or suspended

Fig. 33.



DAVY'S AMBULANCE WAGGON.

cots. The waggon can be ran on to a railway truck, and the patient, without leaving the original conveyance, is taken to his destination.

Furley Ambulance Sick-Transport Waggon.

This is a one-horse ambulance carriage of varnished wood, with English oak wheels and sliding windows. It carries three patients; two on stretchers on the floor, and a third suspended from roof, and two attendants. The driver's seat is hooded, and there is room for the two attendants on the box. The third stretcher is suspended by a hook from a little trolly with four wheels, which runs along two wooden rails (*f*) fixed to the roof of the vehicle. The handles of the stretcher are placed in the loops, and the trolly runs down to the far end of the carriage, the rear end of the stretcher resting on a padded bar (*b*) which juts out from the side of the vehicle, and can, if not needed for use, be detached at pleasure.

Mr. Furley has also devised a system by which any private omnibus or such-like conveyance can be converted

pro tem. into an ambulance transport-waggon. This is done by the same trolly system running along the roof of the carriage, and with loops suspended from it.

The handles of the stretcher are placed in the loops, and the trolly slides along the tramway, and runs the stretcher home into the carriage; the rear handles are then rested on a padded bar, which can be removed when not needed.

Fig. 34.

THE FURLEY AMBULANCE WAGGON.

This system of a convertible omnibus ambulance is very useful, as there are many country houses which have omnibuses, but which only once in a way need to use them as ambulance transport-waggons. This interchangeable system of Mr. Furley may be considered to fill up a distinct want in everyday life. Further particulars as to Mr. Furley's waggon could be learnt by addressing that gentleman at St. John's Gate, Clerkenwell, E.C.

The Atkinson-Philipson Sick-Transport Waggons.

Messrs. Atkinson and Philipson, 27, Pilgrim Street, Newcastle-on-Tyne, have devoted considerable attention to ambulance construction for accident cases and for infectious disease. They are able to supply a very comfortable and well-finished sick-transport waggon for from £65 to £75, and have also cheaper patterns as low as £45 to £50.

Their best pattern waggon carries two patients lying down—one resting on the floor of the waggon, and one suspended above it on the same side by hooks from the roof, and on the opposite side is room for one sitting patient and two attendants. An attendant can also sit with the driver in front of the waggon.

The waggon has four wheels, the two in front being locked under, and having crank axles the body of the carriage rides conveniently low. The firm forward plates and prices of waggons to all applicants.

Ambulance Transport Waggons for Infectious Disease.

These ambulance waggons should not vary externally in any marked degree from ordinary accident-waggons. What is needed for them is extreme simplicity of internal arrangement, every possible means of harbouring infection being removed. Every portion of the carriage interior should be removable, and the litter or stretcher should have a wicker or canework bottom. All iron-work should be galvanised, as the disinfectants used destroy the ordinary paint, and rust the unprotected iron.

Some waggons are lined throughout with sheet zinc, unpainted.

To save the labour of attendants, and to secure complete disinfection, a small hand pump which forces the disinfecting fluid into every part of the carriage is useful; it saves the labour of mopping out the interior.

The need of ample ventilation in such conveyances is

self-evident, especially for the sake of the nurse or attendant seated in the carriage.

For communication between the driver and the attendant, a speaking-tube is not desirable; but a dial, with faces on the outside for the driver, and on the inside for the nurse, with an index pointing to the words, "Stop"—'Go on"—"Drive gently"—is useful. There should be no special compartments for medicines or restoratives in such carriages, as these nooks harbour disease, and cannot be easily disinfected. A basket containing all needful medicines or dressing articles should be taken by the attendant in his own hands into the waggon. The blankets used for keeping patients warm should of course be at once disinfected after each case.

On the rigorous precautions as to the clothes of attendants there is no need to dwell here.

The Alexandra Carriage Factory, at No. 12, Long Acre, manufacture infectious-disease ambulances for the Metropolitan Asylums Board, at a cost of 72 guineas each.

The same firm make an infectious-disease ambulance on Dr. Howard's principle at a cost of 90 guineas. The firm issue engraved pictures of their infectious-disease sick-transport waggons. Some singularly neat-looking infectious-disease ambulance conveyances are made by Lohner of Vienna—the well-known carriage-builder—and those interested should write to him for his pictures of the conveyance. Lohner & Co., Hofwagenfabrik, Vienna.

CHAPTER XI.

RAILWAY AMBULANCE AND SICK-TRANSPORT SYSTEMS.

Crimean Railway carriage of Sick—The younger Baron Larrey's work—Dr. Gurlt's efforts—The American Railway Sick-transport systems—Description of Baron Mundy's organization of the Austrian Maltese Knights Order's Ambulance Trains—Descriptions of the various carriages in it—Extemporised use of Railway Carriages for Sick-transport—Zavodovsky's system—Grund's system—Beaufort's system—The Hamburg system—Civil Railway transport systems.

THE important part played by railways in modern war has reacted to the very fullest extent on the medical services of the various European armies. The removal of the sick and wounded to the base of operations, or to far-removed hospitals in their own countries, is now as recognised a part of a great war system as the use of the railway in mobilisation is a factor in military administration.

We find that from the first development of railways, some forty-five years ago, no war on a large scale took place on the European mainland giving an opportunity of trying the use of railways for the removal of wounded until our own times.

In the Crimean campaign, the railway built from Balaclava towards the front was used in a haphazard way to carry wounded and sick, but without any *matériel* suited for the purpose.

In 1857, the younger Baron Larrey made some experiments at the Camp at Chalons in this direction, and some rude contrivances were adopted for use in carrying sick men to the general hospitals.

In 1860, Dr. Gurlt of the Prussian service devised a

system of hammocks slung from the roof of carriages for conveying the sick.

But for the true era which marks the fuller development of the railway idea in removing sick and wounded in war time, we must look across the Atlantic, and we find that in the great war of the Rebellion in the United States these ideas were very fully carried out.

The United States had everything in its favour for achieving success. When a nation has the common sense to devise a system by which everyday travellers can pass from carriage to carriage in a train; by which in warm weather they can, as they need it, utilise iced drinks, and bathe and wash themselves; by which in winter the carriages can be warmed to any needed temperature by a stove common to a large carriage, and by a system which enables latrine accommodation to be available while actually *en route*, it does not need any very brilliant intellect to devise a very perfect hospital train. The American cars opening from end to end longitudinally, and all united to each other by a kind of drawbridge, are at once ready for sick, if only lying-down accommodation is devised for patients.

The Americans placed a certain number of upright posts along the central gangway or passage of the carriages, and on these uprights and against the sides of the carriages they hung strong india-rubber rings, into which the handles of the stretcher were thrust, and such stretchers placed in two tiers, one above the other, on either side of the central gangway, turned the carriage at once into an hospital waggon. Water was already provided, latrine-accommodation already existed, the stove was always there, and with these essentials arranged for, the wants unattended to are not many.

With such trains as these the Northern medical authorities carried back from the front, by the thousand, sick and wounded soldiers; and a great departure for good, and a distinct minimising of human misery may date from that era. There is really not much to say about the American

system, it is so self-evident, so common-sense, that it explains itself.

Ventilation of course must be very fully provided for, probably by roof ventilation, or by windows left open in the carriage. Add a cooking waggon, and a dispensary waggon and a store waggon, with a sleeping-car for the medical staff, and in such a train you can carry wounded wherever rails are laid.

In Europe, of course, all this is different. We still cling to the old coach system of separated compartments in our railways, and to say nothing of being murdered now and then, we get baked in summer, frozen in winter, and suffer much inconvenience in long journeys from want of suitable latrine arrangements in a truly Old World spirit.

Railway ambulance systems in Europe are practically of two kinds. One is the definite *train* system on the American plan, where the carriages are made to open at either end, and a free thoroughfare exists from the engine in front to the guard's-van behind. As the most perfect development of this *train*-type of ambulance-railway transport, we will glance at the elaborate trains of the Sovereign Order of the Bohemian (Austrian) Branch of Knights of Malta.

The other system may be termed the *carriage* system of ambulance-transport, where there is no central gangway through the train; but owing to various reasons, mainly the absence of end-communications, each carriage has to be dealt with independently, and as a separate unit.

All who desire to study from an exhaustive, complete, and elaborately detailed source the construction and equipment of ambulance trains, should obtain the official volume issued by the Austrian Branch of the Sovereign Order of the Knights of Malta, called "Freiwilliger Sanitats-Dienst im Kriege," printed by L. W. Seidel and Son of Vienna for the Order. This most noble volume, which is entirely the outcome of the energy and self-sacrifice of Baron Mundy, the greatest living authority on ambulance organization, is so complete in detail, that, placed in the

hands of any railway carriage-builder, an ambulance train of singularly perfect character could be made up without one further word of explanation.

These trains now to be described are constructed and maintained at the cost of the Austrian (Bohemian) Branch of the Knights of Malta, an Order which still retains its estates of which the Order in most other countries has been deprived. Each train consists of 18 vehicles of every kind, and communication is open throughout. As it stands upon the railway line it would be marshalled as follows :—

1. Engine and tender, ordinary pattern.
2. Guard's-van with railway guard, ordinary pattern.
3. Carriage of special construction for the sleeping-places of the Knight representative of the Order and the medical officers.
4. Store waggon for carrying the wines and various eatables for use of the sick. Special construction.
5. Kitchen waggon of special construction, with all the culinary utensils and equipment needed by the cooks.
6. A refectory waggon—or dining-waggon—where the staff of the train and the convalescent patients who are able to move about can sit at regular tables, and have their food in comfort away from the sick carriages.

7, 8, 9, 10, 11, are five ambulance sick-transport carriages, each carrying ten patients lying down, on stretchers suspended along the sides of the carriages.

12. A magazine waggon containing the linen store, and the dispensary or pharmacy, containing all the medicaments, instruments, and technical equipment needed by the medical officers.

13, 14, 15, 16, 17. Five more ambulance sick-transport carriages, each containing ten patients.

18. The guard's-van of the guard conducting the train.

We thus see that 100 patients can be carried lying down in the carriages, and that the train is absolutely self-contained, and is completely a unit in a military sense.

We may briefly notice the individual carriages.

The Medical Officers' Carriage does not need a special picture. It is divided into distinct cabins for each medical officer. It has a lavatory, latrine, and in each cabin a couch, mirror, washhand-basin, drinking-vessels, &c., for the occupant. You must make your staff comfortable if they are to live in the train, and this Baron Mundy has done. It is absolutely essential to secure good work from good men. This carriage is joined by a movable bridge, over the coupling-irons of the train, with the *Store Waggon*, in which are contained in presses or cabinets along the sides the wines, the preserved stores, the biscuits, and the various food-supplies of the train. On the floor of the carriage are a series of ice-boxes for ice, and store-boxes for bread, meat and vegetables. This carriage does not need any special picture, as any intelligent carriage-builder would at once understand what was needed.

It practically amounts to a number of store-cupboards along the sides of the waggon, and ice-boxes and meat-safes below them. In the corner of the carriage is a screened-off compartment for an official. We then pass on to the

Kitchen or Cooking Waggon.—(Figs. 35, 36.) This is a special waggon, and we give here a section of the carriage and a plan of its construction. How completely essential good cooking is to the sick and wounded, medical men of all others recognize, and this waggon is very complete, enabling good work to be done.

On either side of the central gangway stand the cooking-stoves, warm-water holders, the water cisterns, the chopping-blocks, and the various cupboards to contain the articles needed by the cooks.

Along the sides are hung with order the culinary implements for cutting, chopping, &c., the meat, and the saucepans are placed on the shelves. We have made such progress of late in England in stove building and kitchener arrangements, that, given a suitable carriage, any leading manufacturer ought soon to fit out the cooking-waggon. Next to the kitchen waggon comes the *Refectory or Dining-room Carriage*, which needs no special description. It has the

usual passage down the centre, and six tables with benches placed along the sides of the carriage. A sideboard with shelves above holds the various plates, tumblers, and table requisites needed by the train staff, and these are arranged somewhat like a ship steward's pantry or washup room. In fact, a ship's dining-saloon would be a capital model for equipping this carriage. There is a small bath-

Fig. 35.

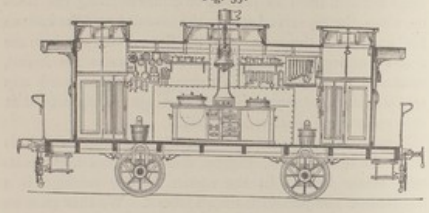
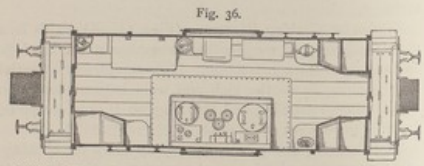


Fig. 36.



RAILWAY KITCHEN WAGGON OF THE AUSTRIAN AMBULANCE TRAINS OF THE KNIGHTS OF MALTA, AUSTRIAN BRANCH.

Upper plate—section; lower plate—plan.

room for a douche bath, screened off from this carriage. How important it is to have the dining-room specially told off and separate, and to prevent eating in the sick carriages as far as possible, all medical men will agree.

The five sick-transport waggons now are come to, and we have here a plate showing their arrangement. (Figs. 37, 38.)

Each carriage holds ten patients lying down, the space

for two patients being occupied by the stove, lavatory, and latrine, with which each carriage is fitted. These occupy the middle compartment on one side, reducing the accommodation by two lying-down spaces.

The arrangement of the stretchers is very simple; they are placed in an upper and a lower tier on either side of the gangway, six on one side, and four on the other.

Fig. 37.

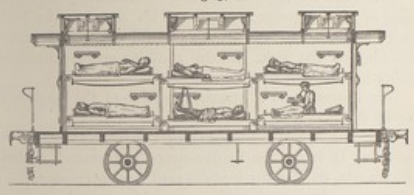
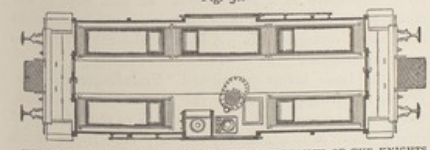


Fig. 38.



SICK-TRANSPORT WAGGON OF THE AUSTRIAN BRANCH OF THE KNIGHTS OF MALTA.—FOR TEN PATIENTS LYING DOWN.

Above—the section; below—the plan.

Special iron standards are screwed into the floor of the carriage, and also fastened to the sides of the carriage, and these may be readily compared to the iron standards of our barrack-room tables, or somewhat like a small bed-room towel-horse. On these standards the stretchers are laid in two tiers, one above the other. The whole thing is most simple and easily understood. Ropes for the patients to help themselves up by are hung over each cot, and there

is a shelf to hold bottles, drinking-vessels, &c., screwed on to the walls of the carriage.

Ventilation of an elaborate character is arranged for by opening in the roof. The provision of a lavatory, latrine and stove in each carriage we have noted already.

Electric, and we presume telephonic communication, or speaking-tubes, unite the carriages, and keep touch between each portion of the staff of the train.

Five such carriages are placed consecutively on either side of the magazine waggon. This contains the linen store of the train, and all the needful changes of under-clothing for the sick. It also contains spare mattresses, pillows, stretchers, &c.

The Pharmacy or Dispensary portion of the waggon is easily described.

It is like a very first-class ship's dispensary placed on wheels. In it are the medicaments, instruments, medical documents, &c., for the medical staff, and a couch for the dispenser. Any naval architect would fit up such a carriage for a dispensary in a day or two. In fact, both in the dining-room, kitchen and dispensary we could learn much from ship's arrangements. A bath is also fitted up in the magazine waggon.

In the book before mentioned "Freiwilliger Sanitats-Dienst im Kriege," issued by the Malleser Ritter-Orders, will be found every detail of construction of these trains, so clearly drawn as to enable any ordinary constructor to act at once upon them.

The trains are kept ready at all times by the Maltese Knights for the Austrian War Office, and a definite agreement exists defining the duties of the Order, and the rights of the Government.

In the various European countries trains of this description, more or less elaborate, either exist, or the *matériel* needed for their instalment is ready to hand in the store-houses of the Government or the Aid Societies. In Germany the 4th-class railway carriages are now made to open at the end instead of at the sides, and these 4th-

class carriages are converted into ambulance trains on the outbreak of war. When once we understand the main lines which have guided Baron Mundy in the organization of the Austrian trains above described, we can easily grasp the various arrangements of other countries, for they are all based on the same idea.

We now turn to note the arrangements made in countries or places where *train* systems are not possible, owing to the carriage opening at the sides and not at the ends. In all these cases the custom seems to be to utilise the goods waggons of the various railways, and in the clear space these carriages allow, to fit up extempore arrangements for the wounded.

What is mainly needed is some method of breaking the jarring of the railway carriage as it traverses the line, and some method of suspending the wounded on their stretchers in the carriages. We may note four methods of achieving this, viz.:

Zavodovsky's system;
Grund's system;
Beaufort's system; and the
Hamburg system.
There are also many others.

Zavodovsky's System consists of fastening a cable (Fig. 39, A. A.) into hooks (*a a*) screwed on to the top of the sides of the carriage. To this cable a pole is fastened by ropes, from which pole hang down ropes (*c c c c*) with loops, in which the handles of the stretchers are placed in two tiers, one above the other.

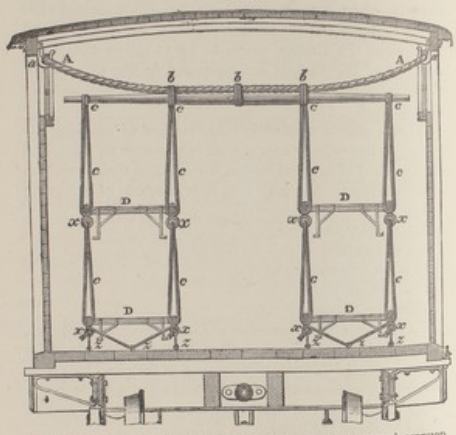
The lower tier of stretchers are fastened by ropes to the floor of the waggon, to prevent the swaying motion induced by the carriage in its progress.

This system is useful when a number of luggage waggons have to be rapidly converted into ambulance waggons. A single waggon will thus hold eight patients lying down; four on either side of the door of the waggon.

Grund's System (Fig. 40) of converting goods waggon for use of sick or wounded consists in placing two spring supports

on the floor of the waggon. A pole is fastened from one spring to the other, generally sufficient in width to rest three stretchers. On this pole, supported by the springs, the heads of the stretchers are rested, and a similar pole on similar springs receives the foot of the stretcher. By this

Fig. 39.



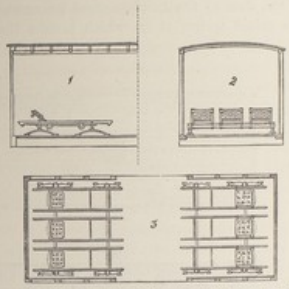
TRANSVERSE SECTION OF GOODS WAGGON, SHOWING ZAVODOVSKY'S METHOD OF SUSPENDING STRETCHERS BY ROPES.
From Surgeon-General Longmore's 'Gunshot Injuries.'

system each goods waggon can hold six lying-down patients.

Count Beaufort's system of converting a luggage waggon for carrying sick is practically the same as *Grund's* system. A portable case, Fig. 41, No. 1—which packs up for transit as in No. 2—receives the stretcher as

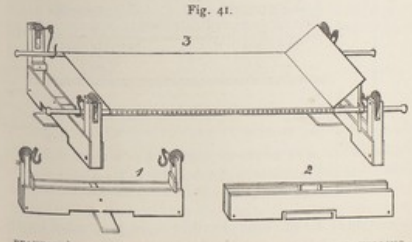
in No. 3—and the springs receive the handles of the stretcher, and thus the shaking of the carriage is counteracted.

Fig. 40.



GRUND'S SYSTEM OF CONVERTING GOODS WAGGONS INTO SICK-TRANSPORT WAGGONS BY A SPRING SUPPORT UNDER THE STRETCHERS.

Fig. 41.

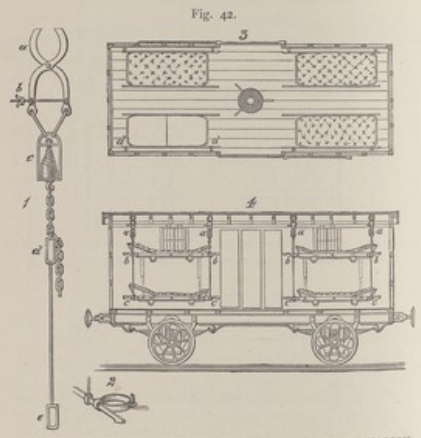


BEAUFORT'S SYSTEM OF STRETCHER-RESTS FOR RAILWAY TRAVELLING.

This system is very portable, and the rests can be made up in any number before a campaign, and can be at once ready for war service.

The Hamburg system of goods waggon conversion seems very simple, and has much to commend it. A spring-suspender (Fig. 42, No. 1) has at its upper extremity a clamp (*a*), with screw (*b*), which can fasten on to the timber of the roof of the carriage, and be screwed there. There is a coiled spring at (*c*) which breaks the force of

Fig. 42.



HAMBURG SYSTEM OF STRETCHER SUSPENSION IN A GOODS WAGGON.
No. 1. The spring-suspender, with clamp. No. 2. The side-fastening. No. 3. Plan of carriage. No. 4. Section, with stretchers inside.

the motion of the carriage. Further down, suspended by an iron chain, which can be raised or lowered, is an iron rod with a rectangular holder, into which the stretcher-handle can be slipped.

There is a second stretcher suspended in a similar manner lower down on the same bar.

Four such spring-suspenders will support two stretchers, and the patient travels with much comfort. These suspenders were much commended by some German army surgeons who had tried them, and they certainly are more rapidly adjusted than Zavodovsky's cables.

To prevent swaying during transit, there is a side-fastening which binds the stretcher to the side of the carriage. The complete equipment for eight patients, consisting of 16 clamps, complete with chains, bars and hooks, packed in a chest, can be obtained from the firm of F. G. Dittmann, Wagen-Fabrik, 52 Markus-Strasse, Berlin. Each spring-suspender costs about 17 German marks, or the complete outfit for a carriage for eight patients, minus stretchers, would cost about 300 German marks.

In all these systems of extempore conversion of carriages one will miss the completeness of the Mundy Austrian trains; but war is a time when extempore action is constantly called for, and with the four systems described above, there should be some chance of making a good extemporised ambulance conveyance. There are several other systems of conversion, but they practically group themselves into suspension from the top of the carriage, or rest on the floor of the waggon.

Civil Railway Sick-Transport Systems.

Very few conveniences are at present available for civil sick-transport by rail. Invalids still travel with difficulty and expense by our railway systems. What is much needed is suitable invalid carriages on our main lines, to be hired at rates within the limits of ordinary incomes.

We very much need in England better arrangements for the many railway accidents we are liable to.

Every guard's-van of every passenger train should have a stretcher compulsorily carried in it, and a basket of bandages and restoratives.

Every railway station should have a stretcher as part of

its equipment. A carrying chair for invalids is also much needed at every station. There should be means of suspending a stretcher in every guard's-van, either by the Hamburg system or other ready method.

To every "break-down train" sent to aid at accidents on railway lines should be attached a regular sick-transport waggon, and the company on whose line the accident occurred should provide suitable conveyance for its victims. In this waggon should be dressings, restoratives, and stretchers for conveying the wounded to the carriage, and to the hospitals afterwards.

The development of sleeping-cars we should watch with interest, as at once on the outbreak of any war we could annex these carriages and convert them into ambulance conveyances. As our great City hospitals develop country branches round London, we may probably find ambulance trains running from London to the outlying hospitals, as a matter of routine daily.

CHAPTER XII.

MARINE AMBULANCE ARRANGEMENTS.

Various Rope Knots used by Sailors in carrying wounded men—The ordinary Navy Cot—The Lowmoor Jacket—MacDonald's Ambulance Lift—MacDonald's Ambulance Lowerer—The Gorgas Ambulance Cot—Ambulance Launches—Ambulance Steamers, 'The Red Cross'—Hospital Ships, 'The Victor Emmanuel.'

WE may here say a very few words about marine ambulance arrangements. Very much progress does not seem to have been made in this direction in naval circles, whether of the Royal or Mercantile Marine.

Inspector-General Macdonald, R.N., is the chief authority to be consulted on this subject; and in his 'Naval Hygiene' the subject will be found fully dealt with.

The existing arrangement for naval ambulance aid may be classified as follows:—

1. Various rope-knots used for carrying wounded men.
2. The ordinary Navy cot.
3. The Lowmoor Jacket.
4. Macdonald's Ambulance Lift.
5. Macdonald's "Ambulance Lowerer" for ship's tops.
6. Gorgas Ambulance Cot.
7. Ambulance Launches—Portsmouth Launch.
8. Ambulance Steamers—'The Red Cross.'
9. Hospital Ships—'The Victor Emmanuel.'

We will briefly deal with these headings.

VARIOUS "SAILORS' KNOTS" USED IN TRANSPORTING, OR LOWERING WOUNDED—

Inspector-General Macdonald states that sailors, with their proverbial handiness in dealing with ropes, contrive

to make very useful knots, with which they can lower or lift helpless men about the ship. These knots are—

The bowline.
The running bowline.
The bowline on the bight.
The clew hitch.
The grummet.

Some of these knots are made round the body of the injured person, and form both a seat and a support in which the patient sits and is lowered.

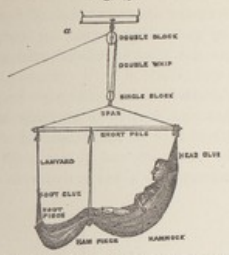
The Ordinary Navy Cot.—This cumbrous article is sometimes used for carrying sick and wounded men. As it is at least 6 feet long by 28 inches wide, the patient rolls about in it; and if it is at all out of the horizontal, the patient slips downwards towards the bottom. As sick men have on board ship to be passed through narrow hatchways, this cot is extremely undesirable.

The Lowmoor Jacket, previously described in the chapter on stretchers, seems to be a useful article for naval ambulance service. It is separate from the stretcher, and hence the army-pattern stretcher could be utilised for naval service if the detached jacket were supplied with it. It is simply a jacket surrounding the chest, with strong back pieces running up behind the patient's back and passing over an iron bar, which is slipped over the handles of the stretcher. Another canvas support passes between the patient's thighs, and still further aids in supporting the weight. A web stirrup can be made for the feet, and this is a great aid also.

Practically, the lowering of a man through a narrow hatchway, or drawing him up a narrow mine-shaft, needs the same, or very similar, appliances.

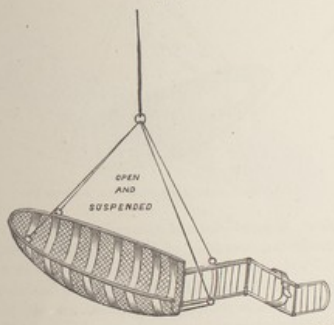
Macdonald's Ambulance Lift.—With the view of remedying the defects of the naval cot or hammock as a means of carrying or lowering patients, Inspector-General Macdonald, R.N., has devised an "ambulance lift." An ordinary

Fig. 43.



MACDONALD'S NAVAL AMBULANCE LIFT.

Fig. 44.



INSPECTOR-GENERAL MACDONALD'S "AMBULANCE LOWERER," FOR USE IN THE "TOPS" OF WAR VESSELS.

hammock is used, the clew and lanyards remaining intact. A short rounded piece of wood, called a "ham pin," is secured transversely beneath the hammock, so as to

correspond with the bend of the patient's knee. Three points of suspension are thus obtained from a short pole, which is hung to a longer pole, or simply connected by a span with the blocks (pulleys) used in lowering the patient.

Macdonald's Ambulance Lowerer. — Inspector-General Macdonald has also devised a lowering apparatus, here depicted, which is kept in the "tops" of a ship, and in it a man can be easily lowered at an angle of about 30°, through a hatchway only 4 feet in diameter.

Fig. 45.

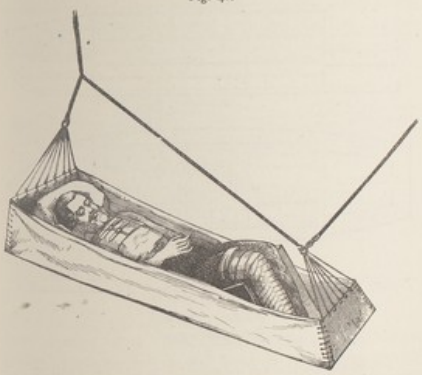
MACDONALD'S AMBULANCE LOWERER, FOLDED UP.

Medical Inspector-General Gorgas's Ambulance Lift.— This cot is the invention of Dr. Gorgas, an officer of the United States Navy. The cot is 5 feet 8 inches long by 21 inches wide, and this small size, with the addition of a breast-band, aids in securing the patient.

The important part, however, is a double inclined plane placed under the buttocks, thighs and knees, and legs, as in the plate. This prevents the patient slipping down in the cot. By the ropes attached, the foot of the cot may be lowered until the position of the patient is almost vertical, and so he can be lowered into the hatchways. It is recommended to have canvas loops or beckets on the sides of the frame of the cot, to act as handles for ordinary lifting, and through the same handles poles may be passed, converting the cot into a stretcher.

Ambulance Launches.—For the conveyance of sick from ships lying off a port, to hospitals on shore, or [from the shore to hospital ships, as in war time, the arrangements have up to our own days been very imperfect, and no

Fig. 46.



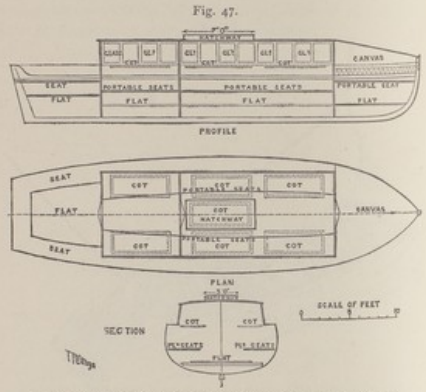
AMBULANCE COT OF DR. GORGAS, UNITED STATES NAVY.

regular arrangements have ever been made to shield the sick from the weather, or to carry them without fear of their injuries being aggravated.

A new departure has now been made in this respect, and through the courtesy of Sir John Watt Reid, the Medical Director-General of the Royal Navy, we are enabled to give a drawing of an ambulance launch just completed at Portsmouth Dockyard. It is to be used in carrying sick and

wounded from the vessels in Portsmouth Harbour to the great Naval Hospital at Haslar. It is an ordinary service pattern launch, 42 feet in length, housed in, and divided into two compartments ; the smaller for four officers lying down, the larger for eight men in the same position. There is also room for others not needing lying-down accommodation. There is a cot-hatchway in the centre of the roof, through

Fig. 47.



AMBULANCE LAUNCH FOR CONVEYING SICK MEN FROM SHIP TO HOSPITAL.

which the sick men lying on their cots, as removed from their ships, can be lowered and placed under shelter on the cot-stands in the cabin. When all the cot-stands are filled, the portable seats can be drawn out, and further utilised for lying-down accommodation.

This valuable boon to the sick will doubtless soon be copied in other large ports, and such a launch will doubtless form part of the equipment of every hospital ship in

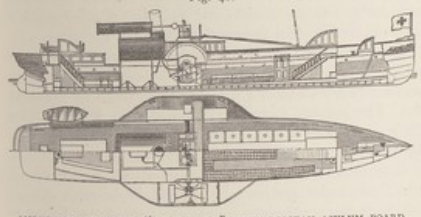
the future. The launch we have been describing has no steam-aid of its own, and requires to be towed by another vessel.

It is well lighted and ventilated, and a stove can be fitted for use in winter time.

Ambulance Steamers.

There is, as far as we are aware, but one existing specimen of an ambulance steamer devoted solely to the carrying of sick and wounded persons ; this is the ambu-

Fig. 48.



AMBULANCE STEAMER "RED CROSS," METROPOLITAN ASYLUM BOARD, LONDON.

lance steamer 'Red Cross,' built for the London Metropolitan Asylums Board, and used for the conveyance of infectious cases of disease from the London receiving wharves to the hospital ships off Dartford.

This paddle-wheel steamer was designed by Mr. Adam Miller, N.A., and built by Edwards and Symes, Cubitt Town, Poplar, E. London. It is 105 feet long, 16 feet wide, and 6 feet 9 in. in depth ; the hull is principally of iron, with a strong keel.

It has a silent discharge steam-apparatus to prevent the noise caused by the safety-valves blowing off steam when the engines are at rest.

The vessel is built in six water-tight compartments. An account of the steamer, with large drawing, will be found in the 'Marine Engineer' newspaper of March 1, 1884.

It consists mainly of two portions; one, the fore part, forward of the funnel, devoted to the reception of infectious cases; and the stern portion, which has a saloon or waiting-room for the use of the patients returning cured from the hospital ships.

Forward of the infectious section, but separate from it entirely, is a small room for the crew, and the captain has a cabin near the saloon or stern-end of the vessel.

The infectious disease portion of the steamer, or "hospital," is divided down the centre by a partition into two parts, one for males and one for females—with a doorway between, for the medical staff and nurses.

The lying-down accommodation consists of couches or settees, running continuously round the sides of the hospital, and on these settees the patients lie, covered by blankets, &c. The hospital is reached by a sloping stair from the deck, and is well lit and partially ventilated from the deck by side-lights.

Glancing at this steamer, one is led to ask the question if this down-stairs system of hospital is suitable for an infectious-disease conveyance vessel; and one is forced to think that a deck-house system on the deck level, and freely open to the perflation of air, would be a better plan. The little steamer is for use in the River Thames only, so no great sea-going power is needed, and by deck-house state-room cabins, raised from the level of the deck, the sick would be carried at once into the hospital, and the hospital itself could be very readily ventilated. Doubtless there may be nautical reasons against this proposal, but at first sight it seems a better method of construction.

Hospital Ships.

Type, the 'Victor Emmanuel.' For the transportation of sick and wounded from the seat of war to our own country, regularly equipped and specially furnished "Hospital-ships" are now requisite. In our old wars, even so lately as the Crimean campaign, the horrors of the middle-passage were extreme, and the condition of some of the so-called hospital ships, used at first to transport sick and wounded men to Scutari from the front, was completely bad.*

It is absolutely essential at the outbreak of a war to have a definite plan ready in the War Office for the equipment of this class of vessels, and that their staff of attendants and interior economy should be completely understood. We have made great progress in this direction of late years, and during the recent Egyptian campaigns the 'Carthage' hospital-ship was of immense use to the army. The outline of the system adopted is to choose a vessel with roomy 'tween-decks. This is done by the Transport Department of the Admiralty; the same officials fit up and equip the vessel, and then hand it over to the War Office for its staff of officials and attendants.

The main-deck is generally converted into the hospital, and cots or portable hanging bedsteads, so arranged as not to swing with the motion of the vessel, are suspended in regular lines on this deck.

A certain portion of the space is usually screened off for sick officers as special accommodation.

The convalescent patients are lodged in a lower or gun-deck, and the hospital attendants are also berthed in the same deck.

The main needs of hospital-ships are a defined nursing staff, so numerous as to afford regular hours of rest for those employed in this fatiguing duty, and to provide fully for the very important night-nursing.

The latrine arrangements also need to be very complete.

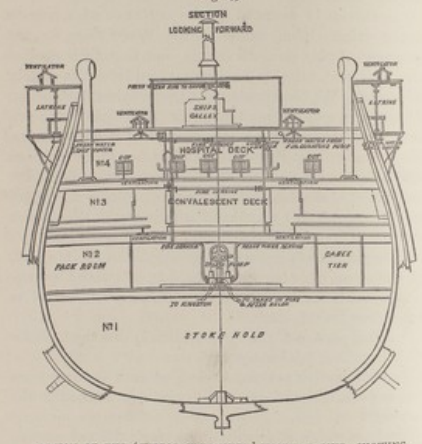
The cooking, as in all hospitals, needs to be carefully provided for, and spacious galleys are always needed.

* Those who desire to read a very complete and interesting account of a hospital-ship, will find Surgeon-Major Bleckley's report on the 'Victor Emmanuel' very useful. A.M.D. Blue-book, 1873.

The laundry is a most essential part of a hospital ship, and on this point Dr. Bleckley's report is very important.

Nothing so degrades the *moral* of sick men as being attacked by vermin; and despite the so-called pomp and glory of war, the almost constant attendants on the soldier

Fig. 49.

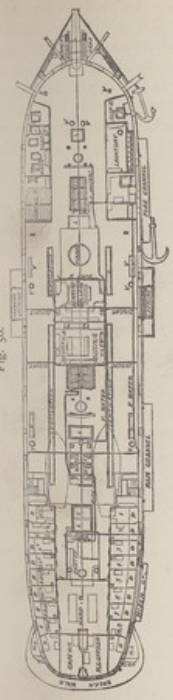


SECTION OF THE 'VICTOR EMMANUEL' HOSPITAL SHIP, SHOWING "HOSPITAL DECK" AND CONVALESCENT DECK.

in the field are vermin. It is only by the very utmost care an army can avoid being lice-infested.

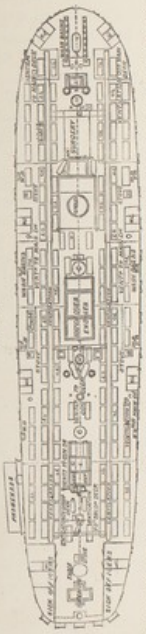
When men fall into bad health, or become helpless in hospitals, the need of keeping them free from lice is paramount. It cannot be done without good laundry arrangements, so as to wash and constantly change the clothes. Every general hospital, every field hospital, and certainly

Fig. 50.



PLAN OF UPPER DECK OF 'VICTOR EMMANUEL' HOSPITAL SHIP, SHOWING PORTION OF THE KITCHENS, LAUNDRY, LAVATORY, MEDICAL OFFICER'S CABINS, AND CABINS OF THE OFFICERS OF THE SHIP.

Fig. 51.



PLAN OF HOSPITAL DECK OF 'VICTOR EMMANUEL' HOSPITAL SHIP, SHOWING GENERAL ARRANGEMENT OF COTS, SURGERY, SICK OFFICERS' QUARTERS, ETC.

every hospital-ship, should have a completely equipped laundry, so that our men may escape this degrading and

disgusting scourge. Ghastly stories are told of the condition of the sick in the earlier days of the Crimean campaign from this odious and loathsome parasite, and the like must never happen again. It can only be avoided by organization beforehand, and by adding to the hospital staff men with washing-machines. Every convenience exists on a hospital-ship to accomplish this work, or if there be a want of space, a separate vessel should be fitted up for a laundry. The *moral* of a sick man is ruthlessly killed out, if he be vermin-covered.

The plates given here are copies of those attached to Dr. Bleckley's interesting and instructive reports on the 'Victor Emmanuel' hospital-ship utilised during the Ashanti campaigns.

The addition of an ambulance launch, and of definitely constructed ambulance-lifts to the equipment of hospital-ships, will doubtless be made in any future campaign.

CHAPTER XIII.

AMBULANCE TENTS AND HUTS.

Proposals for the more general use of Huts and Tents in infectious disease—The English Bell Tent—The Hospital Marquee—Indian Tents—American Tents—The Tollet system of Tents—The Doecker Felt Huts.

FOR the protection of sick and wounded in war, portable tents and huts will always be largely used, and the probability is that, even in civil communities like cities and towns, we are only at the beginning of the use of temporary shelters such as tents and huts for housing infectious diseases, surgical operation cases, and other ailments where abundant air is needed.

Hospitals, however well constructed and however sanitary in their surroundings, would benefit by having their wards left empty and idle for a time, and one ready way of doing this is to be able to pitch in the hospital grounds suitable tents, or portable huts, in which during certain seasons of the year most cases could be treated. The military medical service, with its abundant stores of tents, will probably be the first to push this system into a regular practice, and it will be of much use to that service as giving it the opportunity of testing its *matériel* under conditions similar to war service.

There is, unfortunately, an idea in many untravelled Englishmen's minds as to the discomfort of tents; but all of us who have served in India are well aware that comfort can be completely secured under a canvas roof. There is also a sense of freedom from bad ventilation and unhealthy house-conditions very much felt by those who live in tents.

For infectious diseases' treatment, the idea seems daily to gain ground that expensive substantial stone or brick edifices are hardly the most suited, and it will probably be for the housing of such cases we shall see the first steps taken in providing tent or hut-accommodation.

When we remember the extreme difficulty with which scarlatina, diphtheria, and the various infectious diseases are separated in ordinary private houses, is it too much to hope that one day, on the occurrence of such cases in a household, it may be quite easy to apply for a suitable tent, with proper flooring and camp furniture, which could be pitched in the garden or grounds of the house attacked, and where the nurse and the patient would be completely separated from the remainder of the family?

One may compare the feeling on this head to the very common opinion existing in the past, that patients with high temperatures in fever should not be placed in cold baths, lest internal congestions should ensue, and probably the tent treatment of infectious cases, surgical operations, and perhaps of obstetric cases, may one day be quite as common as cold immersion now is in the high temperatures of fever. Tents with double roofs are very common in India, and keep out the heat, and keep in the warmth very well. Stoves are easily used in tents; our hospital marquees have regularly cut floorings that fit the interior; and surely, with all these aids, comfort can be well secured, and segregation be made as complete as it is to-day incomplete. Tents and huts too can be easily disinfected by washing or by heat, and it may one day be possible to receive on loan from the municipal authorities the needful tents required for the treatment of special disease.

The complete manner in which the *dejectæ* can be dealt with in tent hospitals is an important point, as it prevents all use of the house closets.

We may briefly notice some ordinary tents in the following order:—

(*a.*) The Bell or Circular Tent.
(*b.*) The Hospital Marquee.

(*c.*) Indian Tents.
(*d.*) American Tents.
(*e.*) The Tollet-system Tents.
(*f.*) The Dœcker Felt Huts.

(*a.*) *The Bell or Circular Tent* is the ordinary war tent of the English army. It is also used for the movable field hospitals in the front, and for the operating tents of the bearer-companies. It is 10 feet high, 14 feet diameter, weighs 65 lbs. and cost £5. It is intended to hold 18 men in war time, 12 at ordinary times.

For hospital purposes it is not appropriate. Four men on stretchers can be laid in it rectangularly, but four is a

Fig. 52.

THE ENGLISH BELL, OR CIRCULAR TENT. THE ENGLISH HOSPITAL MARQUEE.

bad unit for supervision and nursing; and the construction is not favourable to moving about in it for nursing purposes. Its ventilation is defective, and must be so, so long as it has only one doorway.

For the bearer-company operating tent it is useless, as the operating table cannot stand in it, and if it could, the doctors cannot move round it with comfort.

The English Hospital Marquee is the regulation tent for permanent hospitals: it is 28 feet long, 14 feet wide, 12 feet high, and weighs 500 lbs. Its price is about £22 13*s.* at the Royal Arsenal, Woolwich. It is supposed to hold 18 sick, but really takes 10 with comfort. It is a singularly, nay absurdly, difficult tent to pitch correctly. As it is not rectangular, but has rounded ends, the laying out the tent pegs and marking the space needed is a geometrical problem, completely foreign to rapid war-pitching.

Further, it is a clear principle that all hospital tents should be able to join together end to end to form larger combinations. The absurd circular ends of this tent prevent another tent being closed up upon it to form a larger hospital ward. This is very fatal to its prestige as a useful article of equipment, and we should not regret to see it consigned to the flower show or the lawn-tennis ground. For war, it is not the thing we want.

A war hospital-tent should be before everything rectangular, able to join on end to end with other tents, and very easily pitched, so that on a dark night or early morning march it can be pitched or struck without the geometrical problem now needed with our hospital marquee. It should have very few pegs indeed, while our present marquee has a bewilderingly needless number, 184!!!

Indian Tents.—The ordinary Indian *privates' tent* does singularly well for a hospital tent, holding eight men with great comfort. It is rectangular, with two uprights, and one cross-pole supporting the roof. It is used commonly all over the plains of India as a hospital tent.

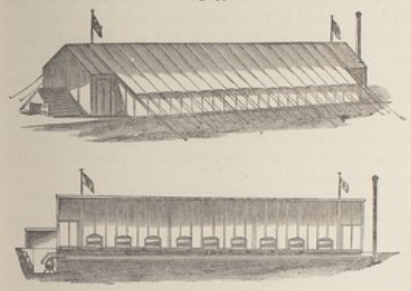
The Lascar Pall Tent was used with much comfort during the Affghan war as a hospital tent. It is easily pitched, and very safe in storm or gales. It is a tent with three upright and one ridge pole, and is like the section of a prism. It holds eight men with comfort in mountain campaigns. Probably it would suit well for any kind of European campaigns as a hospital or operating tent, as the sides can be raised, and there is perfect ventilation.

Mountain Battery Tents.—Some very useful tents are issued to the Indian Mountain Batteries; they are small and light, and would do well for the staff of the field hospitals.

American Tents.—A plate is here given, showing a favourite shape of American war hospital-tent. A good hospital tent would be made by cutting this long tent into sections holding ten beds, five on each side, with curtains closing the ends. Such section tents could be united, end to end, at any time to form larger combinations.

The system of warming tents for winter campaigns is shown in the lower picture. A furnace is built at one end of the tent in a hole dug in the ground, and the heat is

Fig. 53.



AMERICAN WAR HOSPITAL TENTS.
The upper representing the tents as pitched; the lower showing the system of warming for winter campaign.

carried either by iron pipes, or by a stone-lined or brick channel running under the tent, and ending in a chimney at the opposite end of the tent.

Fig. 54.

FRAME WORK OF A TENT ON THE TOLLET SYSTEM, SHOWING THE IRON RIBS RUNNING INTO A CENTRAL RIDGE-POLE—STOVE AT A.

The Tollet-system of ambulance, or hospital tents or barracks, is spoken favourably of, and has been adopted in the French and Italian services (Fig. 54.) The central tent-poles are abolished, and the structure is supported by curved iron ribs running into a longitudinal ridge-pole. The curves are ogival in form, and there is no dead angle of non-ventilation. The interior of the tent is lined with a non-combustible canvas, and there is an external covering of a waterproofed material. The sides can be raised at any place, for ventilation or to form a verandah. A stove can be placed in the interior, and in a Swiss winter is said to keep the tent perfectly comfortable.

The only drawback is the difficulty of transport, but this is not insurmountable.

Inspector-General Mouat, M.D., of the Local Government Board, speaks very favourably of this system of housing sick.

The prices we are unable to state, but the address of the contractors is Société Nouvelle de Constructions Système Tollet, 61 Rue Caumartin, Paris.

The Dœcker Felt Hospital Huts.—This is a system of huts or houses devised by Captain Dœcker of the Royal Danish army. It has received the Gold Medal of the German Empress at the Berlin Hygienic Exhibition of 1883. It consists of light wooden frames, covered with a special felt called Carton felt, lined with canvas.

The fastening of the frames is so simple, that the erection of huts can be very rapidly carried out. The weight is said to be one third that of wooden huts, and they are said to last much longer. The price is about one-third that of wooden huts.

They maintain a very equable temperature, a simple stove being all that is needed to warm them. After use, the tent can be taken down, each panel washed with a disinfectant, and packed away flat in a case.

Professor Esmarch is said to approve of them, and to be himself using them.

Sir Robert Rawlinson has commended them highly.

At the Kings Norton Rural Sanitary Authority, near Birmingham, they are used for small-pox cases, and have given satisfaction.

A hospital hut with ridge ventilators, size 36 feet in length by 16 feet in width, and the walls 7 feet 3 inches, with deal flooring and packing-cases, cost, delivered in London, £175.

The address of the maker's office or agents, is Puggaard and Galschiot, 50 Boulevard Haussman, Paris—to whom those needing further particulars should apply.

TO

JAMES CANTLIE, Esq., M.A., M.B., F.R.C.S.,

Sub-Dean, Charing Cross Medical School; Surgeon, Charing Cross Hospital;

AND

Surgeon London Scottish Rifle Volunteers,

To whose untiring devotion to the interests of the Medical Student, the development of Ambulance Training in the Medical Schools of London owes so much, these pages are inscribed.

G. J. H. EVATT.

R.M. Academy,
Woolwich,
January, 1885.

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PART II.—Volunteer Medical Aid in Foreign War.

SUGGESTIONS FOR THE ORGANIZATION

OF

THE VOLUNTEER MEDICAL SERVICE

AND FOR

THE UTILIZATION OF VOLUNTEER MEDICAL AID IN WAR.

PART I.

1.—The Organization of the Volunteer Medical Service.

I propose in this paper to offer some suggestions on the organization of the Medical Branch of the Volunteer Forces in this country, and also to put forward a scheme for the development of volunteer war aid as a supplement to the regular army medical service in war time.

It is necessary in the first place to say that the existing attempt at medical organization in the volunteer service is entirely defective. A medical department practically does not exist, and the very first attempt at a war mobilization of the volunteer force would be signalized, as far as medical matters are concerned, by a complete breakdown. Yet there is probably no branch of the force which could be so perfectly and completely put into an efficient condition as this same service.

I look upon the volunteer force as the basis of the home defensive army, and consider that as such it should be complete in itself in every needful unit, and this is I believe the opinion of the volunteer force itself. All volunteers

seem to consider that the force should be complete in its medical service, in its commissariat service, in its transport service, and in all the other branches needful in a modern army.

There is no difficulty standing in the way of such developments, and it would be far better to aim at having 200,000 men fully provided with all the war units needed, than to increase the numbers of infantry or artillery battalions *ad infinitum* leaving them simply organized to break down when war occurred from absence of departments.

I am not concerned to day to deal with any question outside the volunteer medical service, and in the following paragraph I will suggest a scheme for its development.

2.—A General List of Volunteer Medical Officers.

The whole of the existing Volunteer Regimental Surgeons to be placed on a list as Volunteer Medical Staff, and placed after the Army Medical Staff in the Army List. The names to be also shewn in the regimental lists as at present, in the same way that the names of the Guards Medical Officers are shewn in two places in the Army List.

This is needful to preserve the seniority of the existing regimental volunteer surgeons and to prevent their being superseded by any medical officers commissioned in the volunteer medical staff as proposed in the next paragraph.

3.—Volunteer Medical Staff.

Such a number of Medical Officers as may be needed to be commissioned in the Volunteer Medical Staff only, to officer the Volunteer Bearer Companies and Field Hospitals it is proposed to form.

These officers would be added to the list referred to in para. 2, and all future medical officers, whether commisioned

in regiments or in the medical staff, would be shewn in the general list according to date of commission.

No change whatever to be made in the existing status of the regimental volunteer surgeons.

4.—Unit of Administration.

As the Division in war, and the Military District in peace is now the medical unit of administration, it is proposed to follow it for the volunteer service.

Two companies of volunteer medical staff corps, capable of forming a bearer company, and a field hospital for 100 beds, to be organized in each regimental military district. The whole of the companies so organized to be grouped for administration and general command into a divisional battalion for the military district or division.

The needful officers to command these companies, together with such reserve as may be needed to meet emergencies, to be commissioned in the volunteer medical staff referred to in para. 3.

These companies and medical officers to be entirely in addition to all existing regimental aid, but power to exist for medical officers to exchange from or to regiments or staff as they desire.

5.—Brigade Surgeons of Volunteers.

A Brigade-Surgeon of Volunteers to be commissioned to be the administrative head of the Volunteer Medical Service in each district, and to command the Volunteer Medical Staff and Corps in the district, under the Principal Medical Officer of the Regular Army in the district.

This officer is needed to free the military P.M.O., who is every day more heavily worked, from the mass of detail matter which must be dealt with in the divisional medical

volunteer battalion, and also to give to the volunteer medical officers opportunities of rising to a position corresponding to the commanding officer of a volunteer battalion.

An adjutant from the army medical staff to be allowed for each volunteer divisional unit to be the secretary, adjutant, and instructor in ambulance drill, &c., &c., of the medical volunteers in the district, and to serve under the command of the brigade-surgeon of volunteers above referred to.

6.—Honorary-Deputy-Surgeons-General of Volunteers in each District.

An honorary-deputy-surgeon-general of volunteers to be allowed for each district, to correspond with the honorary colonel allowed in volunteer rifle battalions, to be the honorary head of the volunteer medical service in each district.

7.—Quartermasters.

Such a number of Quartermasters of the Volunteer Medical Staff as may be needed to provide Quartermasters for the Bearer Companies and Field Hospitals to be commissioned.

Such a reserve number of commissions as quartermasters as may be needed to meet emergencies to be also commissioned.

8.—Sergeant-Instructors.

Such a number of Sergeant-Instructors from the Regular Medical Staff Corps to be allowed to the Volunteer Medical Staff Corps, as is allowed in the case of Engineer Volunteers.

9.—Capitation Grant.

Capitation grant for all efficient medical officers and men of the volunteer medical staff corps to be paid over to the

Brigade-Surgeon of the district medical volunteers as in any volunteer battalion.

Such equipment as may be needed for training and practice to be furnished by the state.

10.—Honorary Surgeons to Her Majesty.

Such a number of Volunteer Medical Officers as may be deemed sufficient to be made Honorary Surgeons to Her Majesty as a reward for special services in the volunteer force.

This is equivalent to the post of aides-de-camp to the Queen, now conferred on a certain number of volunteer officers. The right of the volunteer medical officers to share in the distribution of the Order of the Bath to be recognized as in the case of ordinary volunteer officers.

11.—Retirement by Age.

All surgeons, surgeons-major and brigade-surgeons of volunteers to retire at 55 years of age. Honorary-deputy-surgeons-general to retire at 60.

12.—Honorary Promotion on Retirement.

Medical officers of volunteers to be eligible for a step of honorary promotion on retirement if recommended.

13.—Rank.

That surgeons of volunteers be granted the rank of surgeon-major, ranking with major after 15 years service, and the increased rank of lieutenant-colonel after 23 years service.

Brigade-surgeons to be chosen from the whole grade of surgeons-major for special efficiency.

No surgeon to be promoted surgeon-major without examination, nor brigade-surgeon without some special test.

14.—Mounted Officers.

All Volunteer Medical Officers to be allowed to be mounted on parades and on the line of march.

This is needed as it is impossible for a medical officer to fully discharge his duties when on foot. As volunteer medical officers would provide their own horses, this implies no cost to the state, but means a greater efficiency for work.

15.—Courses of Instruction.

Volunteer medical officers to be allowed to go through a course of instruction at Aldershot, with pay and allowances as given to artillery volunteers attending the Woolwich courses.

A "short course" of instruction at Netley to be feasible for volunteer medical officers, with pay as above during courses.

16.—Certificates of Proficiency.

Ambulance drill, and ability to command a bearer company, to be added to the existing syllabus laid down in volunteer regulations. A general knowledge of field hospital system and administration to be required. The elements of military law to be also a subject. Riding to be a requisite. If a volunteer surgeon does not pass this examination before five years' service has expired, seniority to stop until examination be passed *i.e.*, promotion to surgeon-major to be ten years after passing examination.

17.—Certificates of Efficiency.

Certificates of efficiency to be gained by medical officers for any year in any of the following ways—

(a) *By attending the annual drills and lectures laid down for an efficient medical volunteer* of the volunteer medical staff corps.

(b) By attending such a series of lectures and demonstrations on military medical organization and administration as may be deemed an equivalent for the above annual course.

(c) By attending and studying the system of a military hospital for such a time as may be considered to be equivalent to the annual course.

(d) By attending the Aldershot or Netley course proposed in para. 15.

(e) By attending at the muster of the militia reserve of the medical staff corps, and going through such days' drill as may be deemed equivalent to the course.

(f) Volunteer surgeons serving in the field with the regular army to be *de facto* considered as efficient, and the capitation grant paid over to their district corps.

18.—Employment with Regular Forces at Home.

Volunteer surgeons employed at home with the regular troops to receive the pay of their volunteer ranks at the same rate as in the regular army while so employed. Volunteer medical officers to have preference for such appointments if they desire to take them; the senior to have first choice, and so on by seniority. If no district officer desires to accept the charge a volunteer from another district to be chosen if available before a non-volunteer.

19.—Exchange.

The power of exchange of officers between districts and corps and staff without losing seniority to be recognized.

20.—Battalion Medical Officers.

At least two medical officers to be allowed to each battalion, as 1st and 2nd medical officers; their rank to be regulated by seniority in the volunteer medical staff.

21.—Uniform.

The Uniform of the Volunteer Medical Staff and Volunteer Medical Staff Corps to be identical with the regular medical service. Gold lace to be worn, and the only distinctive mark to be the letter "V" on the shoulder.

The time has now arrived to do away with such petty distinctions as between gold and silver lace.

Existing regimental surgeons to wear their regimental dress. Future officers so appointed to wear the staff dress if they so desire. Queen's honorary medical officers to wear the distinguishing sash.

22.—Employment with the Regular Army in Foreign War.

Every facility should be given to allow volunteer medical officers, if they desire it, to take part in foreign wars as part and parcel of the military medical service. They should carry with them their rank, status, and all the rights of the volunteer service, and every effort should be made to let them serve with the local medical units mobilized in their own districts.

We have in the concluding portion of this paper dealt very fully with this part of the subject.

The same principle also applies to the rank and file of the medical staff corps of the volunteer army. They also should be granted every facility to take part in foreign war if they so desire it. This subject is also dealt with further on in this paper.

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so would be to grant honorary commissions, up to the highest rank in the army, in the volunteer medical staff, to specially chosen men from the civil medical profession. Such men, wearing our uniform, knowing our system of work, and animated like ourselves by the desire to give the nation the very best aid in achieving victory, would be a tower of strength to us, and the testimony of such men as to our needs in war, as to our shortcomings, as to the character of our work, and as to the general system of army administration would be of great value to us and to the nation.

We need above all things to be wide in our views on this point. The weak point of the old service, before the recent organic changes in our army, was its separation as a class from the nation as a whole.

It is our aim and our interest to link ourselves in the fullest way with the civil profession of medicine, and though we are soldiers, seeing the nation in the army, we are nevertheless medical specialists charged with a special line of medical practice.

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23.—Power to grant Honorary Volunteer Medical Commissions to specially chosen Civil Medical Men as Field Consultants in War Time in Medicine, Surgery, and in Sanitary Science.

A system exists in some foreign armies of commissioning leading men amongst the civil profession of medicine as "*consultants*" in war time in medicine and surgery, and there seems to be no reason why it should not work fairly in our army. Sanitary science might also be so represented. It is our interest to place at the disposal of the armed people every aid which modern science can bring forward to assist in achieving victory in war.

If such aid comes from civil sources it is our duty to avail ourselves of it, and a method of doing so would be to grant honorary commissions, up to the highest rank in the army, in the volunteer medical staff, to specially chosen men from the civil medical profession. Such men, wearing our uniform, knowing our system of work, and animated like ourselves by the desire to give the nation the very best aid in achieving victory, would be a tower of strength to us, and the testimony of such men as to our needs in war, as to our shortcomings, as to the character of our work, and as to the general system of army administration would be of great value to us and to the nation.

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If the country can find in the civil profession a physician who in the midst of a cholera-stricken camp in a mango tope in Oude can teach us how better to save her soldiers, let him come.

If the country can send to us surgeons from civil life who in the midst of a Khyber defile can operate more skilfully than we can, and who after an operation can carry a shattered soldier miles and miles over every form of rock and hill, let them come by all means.

If the country can send to us from India and elsewhere sanitarians or health officers more efficient than we are, let them come and we shall learn of them what our weak points are.

But it is for us to determine that they shall not excel us, and so state our demands and our needs to the country, that we may become the very best men of our specialism that can be found.

Personally I have no fear for the result as I feel certain we have little to learn as to what we should do, but much to gain in power and authority and the means to do it. Such consultants coming to us in war and in peace would at any rate be able to see how the work was done; they would silence the misstatements of ignorant prejudiced critics, and they would be able to point out to the nation why and where we failed. It is by such criticism we progress, and we want above all things to progress towards real professional efficiency. Let us welcome then such consultants as these into the midst of our war camps and field hospitals.

PART II.

24.—Volunteer War Aid for the Army Medical Service.

In the preceding paragraphs I have dealt with the question of the organization of a medical department for the volunteer forces, so as to place that service, as far as medical matters are concerned, on a completely independent footing, so that in case of foreign war draining the country of all the regular medical service, the volunteer force could take the field in England fully equipped as regards ambulance arrangements.

But quite apart from this home defence duty of the volunteers, it is most easy so to throw open the door of the volunteer service and to utilize its organization as a frame-work to enable a contingent of trained volunteer medical aid to take part in our foreign wars, and in no department of the service is such a volunteer aid so needed or would it be so useful as in supplementing the medical service of the regular army in its endeavours to cope with the heavy demands made on the army medical staff by any great campaign.

The English military medical service is the only great national service in the world trusting entirely to its own permanent officers with the colours for war and peace demands.

Conscription and general military service in all the great nations catch in their clutches the whole profession of medicine, and places it at the disposal of the state as a war reserve, while the varied character of the conscripts serving in the ranks of the foreign armies render available for subordinate work many chemists assistants, druggists, cooks, and a variety of persons completely absent from the rank of the average British regiment. We in the army medical service stand then completely isolated and alone as regards our power of meeting war emergencies by medical reserves, and this too although there are in England abundant

medical men full of public spirit ready if called upon, and suitably dealt with to serve with us as a temporary and supplemental aid in foreign war. Many English civil surgeons have served in the Continental wars as ambulance doctors, but we have in our army no definite place, no defined status, no organized rules and no authorized code of regulations placing in a clear and unmistakable light before the younger members of the civil profession of medicine the terms and conditions on which we can accept their temporary services for a campaign.

We seem as it were to starve in a land of plenty, and besides very frequently sending out to foreign war medical officers of the regular army but shortly returned from trying foreign tropical service, we place great difficulties in the way of efficient home work in the garrisons owing to the paucity of regular medical officers remaining in the country for duty.

The volunteer medical staff and its due organization would I think abolish many existing difficulties on both these heads, and do very much to aid us in attaining that efficiency in war medical work which is so much dependent on an abundant medical *personnel*.

It is not to our interest as a specially selected staff of the regular army to rush into the professional market at the outbreak of any great war, and by a competition which under the circumstances must be rather feeble to admit into the permanent medical service of the army a vast number of medical men. Crowds so recruited in an emergency cannot be always really efficient men, and crowds so placed on the army permanent list encumber promotion and in peace time are a great and needless expense.

We want a means of employing for a campaign, and for a campaign only, a number of young active trained medical men to supplement the regular medical service in its exhausting work.

I do not think there is any chance of attracting to foreign war medical men of mature years, and settled definitely in civil practice, nor do I think we particularly need such men in any large numbers, and it is only in case of actual invasion such men should be called upon to take the field. What we need to my mind above all things are young active energetic men with whom the question of submission to senior medical authority will not arise in any marked way, and who can remain absent from England for a year or so without the dread of their civil practice melting away during their absence.

Such men as we need are to be found by the score in those active young surgeons newly qualified who fill the important and trusted posts of house surgeon, and like appointments in the civil hospitals throughout the country, in the specially selected demonstrators and assistant teachers in our medical schools, in the young men who have obtained their double medical qualifications, and who having in their view to succeed to special practices are anxious to spend a year or two in seeing the world and gaining experience of life before finally casting anchor in a country practice.

They are the young men whom we find going on voyages to see the world, travelling as physicians in charge of special cases, visiting various places in yachts and such like, and from young medical men of this class we can develope a temporary reserve for war as good as any country could provide.

But I do not propose that we should accept such aid haphazard, untaught and untrained in our own special work and by mere chance; we need to define what we want, what special qualifications we need, what rewards we propose to hold out for special devotion, what the penalties shall be for neglect of duty. They must not come without training, without passing some examination, without knowing the way

in which military laws will affect them, and all such rules should be openly and fully laid down in peace, circulated freely in the medical schools of the country, and the system of mobilizing them for war fully understood. It is needless to say that such a body of aid for war could not be a permanent body.

It would have to be recruited yearly, and the young officers would only be available from year to year as they registered their names for the work.

But as the older men passed off the mobilization list, and settled down in civil practice, the younger men would be coming up and taking their places, so that at any one time in any one year such aid as we needed would be available.

With this introduction I will now discuss how to form such a reserve for war as I suggest.

25.—Medical Cadet Companies and the Training of Medical Students in Ambulance and Field Hospital Drill in the Civil Medical Schools.

During the Crimean campaign, and at various times since then, we have in our emergencies sent out civil medical men to assist in our wars.

As to their special training, their status in the army, their discipline, their subordination to authority, their uniform, practically nothing was laid down.

They were entirely civilians, untrained in military habits, and rushed into the field. It is true that in these past days medical war organization was in a chaotic unorganized condition; the army surgeon was in those days hardly if at all removed from the civil doctor, and had not become the specialist he is to day.

By comparison with 1850 we are in 1885 a body of specialists as much removed from the average civil physician

as the special occulist, or special aurist, or special medico-legal authority is removed from the average doctor.

We all belong it is true to the same profession, but we have since 1850 specialized our work in a very great degree. Our own internal corps' discipline once non-existent is rapidly developing, our power to achieve good war results has never been better, our grip of our work and how to achieve success in it is far greater than it ever was before; we at any rate know what we want.

But just as we progress in our speciality, just as we differentiate our work from average civil practice, by so much do we isolate ourselves from possibility of falling back on ordinary untrained civil medical aid in war time, and just in the same degree do we need to teach our new knowledge to others so that it may be no longer a specialism.

Bearing in mind this governing idea, how are we to achieve our end. Simply by carrying the teaching of our specialism into the medical schools of the country. We desire not to shut up in our own narrow corps' circle the special knowledge we have attained of war work, gathered at such great suffering to ourselves, but rather to carry it into the medical schools and to diffuse it amongst our civil brothers, feeling that in the end it is entirely in the interest of both sections of the profession that it should be so.

The army is to day going back rapidly to the nation. It is no longer a narrow class shut off by barriers from the people; it is the people itself. It is entirely our interest and entirely our duty so far as we are concerned as being a corps in the army to go back to the civil profession and population for sympathy, for aid, for real help in our important work.

We need then to foster by every means the idea now sown in the civil medical schools, that training in the discipline, the organization, the drill, the subordination of individuals to

attain an end, the power of obeying orders, and the force of character to make oneself obeyed, needed in a military service should not be our exclusive possession. We need to utilize this volunteer idea and to ask these students of medicine in the name of England to learn as students and as juniors the work of the ambulance companies and the field hospitals. We must ask them to continue, as they are now doing, to practice as private volunteers, as corporals, as sergeants, and as under officers the routine and the discipline of the regular medical corps. They are now doing this with much public spirit in many medical schools, and are devoting their spare time to learning this special work. It deserves the fostering care of the state. The ambulance *materiél*, the field hospital equipment, the capitation grant and the sympathetic aid of the State may well be extended to a work of actual national importance, viz., that the civil profession of medicine may be trained to be able in case of invasion to work with accuracy the ambulance aid of the volunteer force, and further, as we now suggest to afford temporary war aid in our foreign national wars. The provision of trained instructors from the regular medical service, and the careful forwarding of specimens of all new ambulance developments to the schools for experiment may cost some money.

Can any one deny that it would be money well spent? I can safely say that no person has denied that it is entirely utilitarian in character and deserves well of the country.

Let us then agree that all sympathy and financial aid shall be given to such national work and that a medical cadet corps shall be fostered in our great medical schools, to practice all these war details until we shall have the civil profession leavened with some of our knowledge. It is from such students trained to discipline and to habits of command that we shall develop the young surgeons we need for this

special war aid work and to officer our volunteer medical service.

26.—Commissions in the Volunteer Medical Staff.

We have in the preceding paragraph shown that to-day the students are learning the elements of this ambulance work. When the specially-trained student has been doubly qualified as a physician and surgeon, I would then offer to him a volunteer medical staff commission as surgeon, or if many applied for it, I should again select by competition the number annually needed.

I would allow the young men thus commissioned to go to any part of the country and settle in any medical capacity they desired, keeping their commissions, and serving in the volunteer medical staff according to the rules laid down in the first paragraph of this paper. They would join the district medical staff and earn the annual capitation grant for the district corps in any of the ways we laid down in the efficiency paragraph.

Thus far we deal with the home service peace aspect of the question.

27.—Organization as a War Reserve.

To the number of young men yearly leaving the schools doubly qualified and trained in ambulance work, and if they desire it, commissioned in the volunteer medical staff, I would say, "I want this year, 1885, 50 young volunteer surgeons to go on a year's campaign," wherever it may be. "You will go out with volunteer commissions, uniform, defined position, in every way an officer in the volunteer service, and when you return you will retain your volunteer commission, and wherever you settle in practice will join the district volunteer medical staff, and rise in it. But we need qualifications and terms to be stated beforehand.

28.—Qualifications for War Volunteer Medical Officers.

(A) *Age.* The age of such an officer should not be over 30, so as to prevent his having to serve under regular medical officers perhaps his junior in age, a very fertile cause of undiscipline in any service.

(B) *Physical Fitness.* To be tested by examination by a medical officer of the regular army, and by a personal statement of efficiency from the candidate.

(C) *Double qualification in Medicine and Surgery.*—This is of course essential.

(D) *Riding.* A certificate from some public person that that the candidate can ride is essential.

(E) *Drill and Discipline of Medical Volunteers.*—A certificate from the instructor or adjutant of the school company or corps that the candidate is acquainted with his drill and is able to command a bearer company. This is an important test as shewing a knowledge of military detail.

(F) *Examination Test.* In para. 16 we laid down the "certificate of proficiency" to be needed from volunteer surgeons in the ordinary volunteer service. This examination is capable of very full development.

We propose to allow no young volunteer surgeon to go out as a war aid who does not pass this test. Three army medical officers would form a board and examine the candidate in the treatment of army diseases in war, military surgery, military hygiene, the principles of military medical organization, and the general principles of military law.

There is no real difficulty in passing such an examination, but we need a test, and this test is the volunteer "proficiency" standard. The adjutant or instructor of the school companies would teach the outlines of this work as part of his ordinary duty.

29.—Terms of Employment.

To encourage young men to join such a volunteer aid for war the terms need to be liberal and honourable, and there is no difficulty in arriving at an understanding. There should be honours and rewards, and liberal pecuniary recompense for good service, just as there would be trial by court-martial and dismissal for neglect of duty.

(A) *Outfit allowance, or advance of field allowance.*—It is needful to give a fair sum to enable the young volunteer officer to provide uniform and to purchase his field kit, and to make arrangements at home for safe custody of his effects. £100 would be a fair sum, as it is essential that uniform be provided by the officer. It is a great aid to discipline—and the want of that would be highly injurious to the working of the scheme.

(B) £50 for a horse—if a public horse is not provided. This is as allowed to an army surgeon going to war.

(C) The daily pay and allowances of every kind of a young surgeon of similar rank in the regular service including batta, prize money, half-pay for sickness, pension for wounds, &c., as in the regular service.

(D) To be eligible for special promotion in the volunteer medical staff, in the same way as regular medical officers are promoted in their corps for special and distinguished service.

(E) Medals and decorations as for the regular medical service. The red-cross decoration to be divided into classes, and to be available for such officers as shall volunteer aid in war.

(F) A certain number of specially recommended volunteer war surgeons who have done good service in the field, to be allowed to enter the regular medical service by a *qualifying*, and not by a competitive examination.

(G) *Gratuity or Deferred Pay on termination of war.*—A gratuity of one year's pay of rank for every year employed in the field. It is better to give good deferred pay than to pay a high daily rate, as this causes unpleasantness.

(H) *Free passages in every direction the officer may be sent*, and to be brought back to England after the campaign.

(i) *Contract for Service.*—If needed a contract to serve for so many months should be drawn up to prevent abrupt termination of service; but practically any army officer can retire at any time in war or peace.

(j) *Commission to be Retained.*—The commission of the volunteer war surgeon to be retained on his return to this country, and to continue his when he resides down in his district. Such officers would be a backbone of great strength to the volunteer medical service.

30.—Employment of War Volunteer Surgeons.

There are many positions where such volunteer officers as those we now propose may be usefully employed. They would not be, of course, so efficient as a trained army surgeon habituated to discipline, and accustomed to war work. For this reason, whenever I would withdraw an army surgeon I would replace him by two young volunteer surgeons. Thus in the hospital ships we could withdraw one or two of the regular army doctors, and replace them by two or four volunteer surgeons.

Again: at the base hospital the same process might go on, limiting the volunteer element to one-fourth of the medical staff.

Again: in each of the stationary hospitals on the communications, we could withdraw one of the army surgeons and replace him by two volunteer surgeons.

Probably place might be found for a volunteer surgeon in addition to the stated staff of the bearer companies, and two volunteer surgeons might replace one of the surgeons in each of the advanced field hospitals.

Again: we now allow but one medical officer to each battalion in war, as a battalion surgeon. Probably, with our present strength of regular doctors we can afford no more; but we all agree that it is too little for the strain of tropical war, and we could supplement him by a volunteer surgeon

acting as an aid in each battalion. Every Continental army allows at least this number of medical officers to a battalion when mobilized for war.

By this system we could increase our field medical staff by a small amount, but we would set free for other duty some thirty regular army medical officers in an army corps, and from these officers we could easily supply our present urgent need for staff and secretariat aid to the different chiefs of the medical service in the field, as well as lessen the demands on our permanent medical service for war contingencies.

Unless a medical officer returning from a tropical climate, or from a hard campaign, has at least three years' home service to recuperate and recover from his fatigues and exposure, he is not fit for a new campaign, or a new tour of foreign service. This volunteer aid would diminish, in a small way, war demands upon us.

Further, we could post a senior medical officer, to be the chief medical officer of each infantry brigade in war, to act as the sanitary officer of each brigade, and the adviser of the major-general commanding the brigade on medical matters, and who could see that the different battalion doctors were doing their work thoroughly. This brigade doctor everyone seems to agree is needed in war time—he is always missed if not present.

Again: we could separate the duties of the present divisional staff-surgeon in medical charge of the officers of the divisional staff from the duties of sanitary officer of the division, a most important—nay, most highly important post, but which cannot be properly filled by a man engaged all day in looking after the sick officers, clerks, and numerous odds and ends of a divisional staff. The two duties are dissimilar, hopelessly apart, and it must be difficult to find a man combining both classes of work efficiently. By the officers set free from the introduction of volunteer surgeons

we can appoint a special sanitary officer to each division—a very needful reform.

Again: we can give to the divisional principal medical officer that highly important key-stone of the medical aid in a division—a staff-officer and secretary. Everyone agrees he is needed, but a short-handed corps cannot spare the man. Remove a man from the base hospital, put in a volunteer surgeon, and make the removed man secretary. This would be a very great aid to war efficiency. The staff of the surgeon-general of an army corps could also be increased.

There are many other points which could be brought forward showing the utility of the temporary class of volunteer officers we suggest. Why should we not utilize them?

As to cost, let us remember these officers are all to be charged, not to the annual medical estimates, but to the war vote, and in the bill for the war they form a very small item—almost inappreciable. Under this scheme we can provide a volunteer doctor for a campaign at a cost less than a few shots of the 80-ton gun.

Let us then fall back on the civil population. Let us utilize members of the civil profession of medicine; but if we are to do so let us also teach them our specialism, organise their service in peace, and let them come to us knowing their responsibilities, and well prepared for the war work needed of them. In the preceding paragraph I have endeavoured to show how alone this can be done—that is by definite systematic training in peace.

31.—Extension of the same War Aid Plan to Quartermasters and to the Rank and File of the Volunteer Medical Staff Corps.

No difficulty ought to exist in applying the principles of the previous paragraph to the services of quartermasters,

apothecaries, or non-commissioned officers and men of the rank and file of the medical volunteers.

If men choose to come for a campaign, there should be a local list of such men kept at the district head-quarters, and they should undergo an examination as to physical and educational fitness and knowledge of their technical work.

If men do volunteer, place should be found for them in the army field hospital mobilized in their own district, so that they might be amongst friends, and after the war they should be returned home again to their own district. The principle of deferred pay or gratuity could also be applied to them.

32.—Female Nurses in War Time.

The same principles here laid down apply exactly the same to female nurses. There is no reason whatever why a defined body of volunteer war nurses should not be organized in peace for war, and such nurses could be obtained from our large civil hospitals by carrying into them the principles of a volunteer corps with a war reserve. Lists of names would be kept in the war office of nurses ready to go to war if needed.

33.—Conclusion.

Nothing now remains to be said save to explain that this paper is written to endeavour to weld the medical service of the army more and more completely with the civil profession, so that war efficiency may be achieved by conjoint action.

However much at first sight it may seem to be a relinquishment of rights, and a sharing with those not in our own special corps the high privilege of rendering good service to the nation in war, we must conquer such a feeling and stand by this one principle that the interest of the army and the nation are one and identical, and the more

completely they are welded together the better it will be for both. Let us learn from the bitter history of the past that an army isolated from the nation, standing up for exclusive privileges, claiming to possess an exclusive knowledge, may so weaken its hold on the nation as to perish in any great struggle with none to help it.

Such a catastrophe fell upon our Crimean army. Forty years of peace, of non-organization of the national forces, of neglect of the militia, of complete disappearance of the volunteers, of entire absence of military training of the manhood of the nation, of isolation of the military class from the people as a whole, left our army to perish on the heights before Sebastopol with not a man in the country trained behind it as a reserve for war.

Of the magnificent battalions who marched past before the Sultan in 1854, 20,000 perished in the Crimean winter, and there was not in England a citizen trained to take their place.

We stand in different conditions to day. The nation as a whole is being leavened with military knowledge, and defective though our organization may still be in important links, we are infinitely more ready for any great war than ever before, since Waterloo.

The aim of these paragraphs is to urge on the organization of the medical and sanitary and ambulance side of the national army, and no difficulty exists why what we aim at should not be realized.

Royal Military Academy,
Woolwich,
January, 1885.

F. J. CATTERMOLE, PRINTER, ARTILLERY PLACE, WOOLWICH.

ON THE

MEDICAL ORGANIZATION

OF THE

Base of Operations in War Time.

BY

Surgeon-Major G. J. H. EVATT, M.D.,

ARMY MEDICAL STAFF.

WOOLWICH:
F. J. CATTERMOLE, ARTILLERY PLACE.

1885.

TO THE MEMORY OF

THE LATE

DEPUTY-SURGEON-GENERAL

OLIVER BARNETT, C.I.E.,

PRINCIPAL MEDICAL OFFICER SUAKIM EXPEDITIONARY FORCE.

Who Died from the effects of the Soudan Climate, on July 24th, 1885,

THESE PAGES ARE INSCRIBED.

G. J. H. EVATT, M.D., Surg.-Major,

Army Medical Staff.

Royal Military Academy,
Woolwich,
August, 1885.

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ON THE MEDICAL ORGANIZATION

OF THE

BASE OF OPERATIONS IN WAR TIME:

BY

SURGEON-MAJOR G. J. H. EVATT, M.D.,

ARMY MEDICAL STAFF.

INTRODUCTION.

I PROPOSE in the following brief paper to deal with the question of the organization needed at the base of operations by the Medical Corps of an Army in the field to enable the Medical Service to do its duty with efficiency, and according to the demands of modern ideas as to the working of a Medical Corps in the field.

We are now going through the constructive stage of Military Medical Organization. We have really no tradition of the past to copy implicitly as a guide for our work. We have to day to originate, to lay down first principles, so that those coming after us may have easier work to do and more to guide them in doing it than has been our lot.

We should take courage in this matter from the enormous progress made in military medical organization between the years 1882 and 1885, and should remember that between

these few years the *personnel* of the field hospitals was practically doubled. We have now to deal calmly and accurately with the subject of medical organization at the base of operations in war time. Its efficient working is of paramount importance to the success of the army, and that efficiency can only be achieved by thoughtful forecasting of its needs in peace, and laying down a definite scale of officers, men, and material for its due working.

In foreign armies fighting on the mainland of Europe, and starting from their garrisons for the field, practically their whole country is for them a base of operations, and the German army can draw supplies of men and equipment from the whole extent of the German Empire in war time.

With us it is quite different. Our armies are flung down on a hostile coast; they have to land all their supplies often at a single and perhaps indifferent port, and all the vast converging mass of men and materiel coming from England have to pass through the narrow tunnel of the base of operations before they again expand into the army in the field. The base is like the narrow construction in the centre of an hour-glass, the upper division of which may represent England pouring out her supplies with a lavish hand from her shores, every particle of which must run through the base before it again expands into the lower division which represents the army spread out in the field. For the Medical Service the highly important fact has to be borne in mind that in addition to landing all its *personnel* and *materiel* from England at the base, through that base must also re-pass the whole of the sick and wounded returning from the field to England; and further, that large accumulations of sick and wounded are likely to be collected for treatment in and about the base itself.

We should now in peace time quietly think out what machinery is needed at the base of operations to discharge

this duty, and openly submit the demands to English public opinion so that every one in the nation may know what the medical service of the army needs for its successful administration in war.

We must put on one side altogether the idea that the nation will not grant the men needed, or that it will refuse the extra cost the needful establishment will entail in the war estimate. This is not the case. It is quite certain that if we can calmly and accurately show the need of the special aid we require it will certainly be granted. This labour of accurately studying our needs in peace for war is one only beginning in every branch of our army, but it is certain that without this preliminary study successful war cannot be made. The whole history of the past in the medical service has been the highest, fullest, and most excellent aspirations on the part of the medical officers to succeed in war, and with this a complete absence of the means of reducing these aspirations to the level of practical work.

It is no use theorizing as to what we are to dream of in a future campaign; the true course is to frame a clear demand for so many officers, men, materiel and transport, and say definitely that without these success cannot come. All happy-go-lucky makeshift endeavours are not organization. Organization is above all things accurate definite forethought applied in peace to the study of the national needs in the field.

Up to the present I cannot find that any single military leader has ever thoroughly gone into the question of medical field organization, however ready they may have been in the field to blame all short comings. To-day we are doing this work for ourselves, and endeavouring to educate public opinion on this matter so important for the well being of the army, particularly in its lower grades.

The subject of the Medical Organization at the base of

operations may be considered under the following heads :

Section.

I. The Principal Medical Officer at the base. His staff, &c.
II. The Sanitary Officer at the base.
III. The Medical Transport Officer at the base.
IV. The Medical charge of the base military and general staff.
V. The Medical store depôt at the base.
VI. The Base Hospital.
VII. The Hospital Ship.
VIII. The Sick Transport Ship for England.
IX. Medical staff corps depôt at base.
X. Reserve hospitals parked at the base.
XI. The Statistical Officer to the Army Corps.

Section I.—The Principal Medical Officer at the Base.

The principal medical officer of the base is one of the most important officials needed in the medical corps of an army in the field, for on his energy depends much of the successful working of the whole medical field system. He should be active, of good physical health, and able to endure fatigue. It is a question of the existing age of retirement for deputy-surgeons general, viz. : 60 years is not much too high, and that an officer who has to undergo the physical labour now demanded of a deputy-surgeon-general should not retire at 55 years of age. These last five years from 55 to 60 years are the last straws on the camel's back, and officers full of tropical service, and who have seen several campaigns are not well fitted when over 55 for such active work. With surgeons-general it may be different—but for deputies, 55 should probably be the age of retirement.

The P.M.O. on leaving England should take with him, in the same vessel his secretary, who should be a surgeon-major. This officer should be the office assistant, and representative of his chief, and should sign all routine letters, returns and orders " by order " for him. No secretary is

allowed to the P.M.O. at the base by the existing field service regulations, and anything more painful than the result of this absence of a secretary cannot be imagined. It is painful beyond measure to see old and experienced officers filling this post wearied and tired out with petty routine details.

To send a P.M.O. to work the base, and to give him no secretary is to run the risk of failure in war with our eyes open. If the P.M.O. goes from his office to a board, or to visit the base hospital, or to inspect the hospital ship, a constant and important duty, one finds his office empty and some sergeant in charge. This is completely wrong. We cannot do our duty or speak with sergeants on important confidential subjects such as medical matters are. Even if we in the medical service did discuss matters with sergeant clerks, other officers of other branches will certainly not do so, and thus hitches, misunderstandings and failures occur. The secretary should be always on the spot in the absence of his chief, and should be fully aware of all the various lines of work at the base, so that if the P.M.O. goes sick, or is invalided, the whole working may not collapse, but the new P.M.O. will find the office work going on fairly under the secretary when he takes charge. We cannot dwell too strongly on the need of this officer. He may cost £500 a year for his pay, but in the war charges this is nothing, and without him a P.M.O. cannot do his work, and failure is quite certain to occur. This should be clearly understood, and none will deny it. There is no doubt whatever that our P.M.O.'s are to day completely overburdened with petty details in the field, owing to the absence of secretaries.

During the whole of the voyage out the P.M.O. should discuss matters with his secretary and lay down his system of work, and if others of the base staff be on board with him he should call them together frequently and regularly drill

them by lecture and explanations into what his system of work may be.

There is no great difficulty in working the base if this be done, but if all the base staff land ignorant of their work and have to learn it there, confusion will result.

Doubtless this base organization routine should form part of the senior examination now introduced into the department.

The P.M.O. of the base is, of course, subordinate to the P.M.O. of the communications line, but within the base itself he has a free hand and full power to act. The P.M.O. of the communications is really a travelling Inspector-general, whose power extends from the immediate rear of the army in front to the extremest point of the base towards England. This communications P.M.O., should probably be perpetually on the move up and down this line, and he really is the vivifying influence along the whole line. It is difficult to overestimate the importance, the efficient working of the line of communication bears to the medical service. It is the very basis of good medical war work that the communication be well organized. To-day, of course, we deal merely with that section of the communication called the base of operations. In addition to his secretary the base P.M.O. needs a junior officer of active habits and good address as his orderly officer. There are a great number of points which come under the P.M.O. of the base which can be settled at once by a personal interview, or by a personally delivered message, and for this purpose an orderly officer is of great importance. Practically all P.M.O.'s in the field strive to develop such an officer, but he is only to be obtained by filching him from one of the medical field units, which unit is thereby injured in its efficiency. The true method is openly and boldly to say to the nation that such aid is needed to ensure the efficient working of the base. Tradition gives us

no aid in this matter. The chaos of Scutari teaches us not what to copy, but rather what to avoid. Deficiency of staff is the thing we must avoid.

So far as I have seen of army life the shorthandedness of the medical corps in its war work receives not the slightest sympathy from the army generally. They rightly think that it is is entirely our own fault in not openly stating our needs, and referring the matter to those who know what labour war really is. If England desires her soldiers to be cared for when ill she must grant the staff needed for the work, and I have in every case found that the military officers simply wondered at our going into the field shorthanded. The need of secretaries is of paramount importance to us, not only at the base but at the divisional head quarters where the P.M.O's. are entirely devoid of secretarial help, being in this way far worse off than any other commanding officer of a corps. The very life of the P.M.O.'s are at stake in this question of continuous overwork from petty details which should fall on secretaries.

The P.M.O. of the base takes out with him in the same vessel his sergeant and private clerks. These are trained disciplined men of the Medical Staff Corps, and there should be a sufficiency of them. On the voyage out the P.M.O. explains to them his line of work, and allows them to attend any lectures he gives to the medical officers on the subject.

In addition to these, and quite apart from them are his messengers, of which he needs probably three. There are also M.S.C. men who know the meaning of the medical unit, designation of officers, &c., &c.

These men are lodged in the tents with the clerks, and are rationed and looked after by the orderly officer of the P.M.O., who also rations the servants, looks after the horses, and attends to all the minor details of the P.M.O.'s camp in addition to his other duties.

Mounted orderlies are also needed, and should be supplied from the mounted corps at the base, or the Transport depôt should supply ponies or horses for the messenger orderlies which probably is the simplest way of arranging matters.

The loss of time in using foot messengers over a large base is considerable.

Great advantage results from joining the base hospital and the hospital ship to the P.M.O's office by telephone, or by flag signals, and by laying down a few simple signals referring to transfer of wounded to the ship, &c.

The P.M.O.'s offices are, of course, near the base commandant's office, and ought to be distinguished by a red cross flag, and by a large conspicuous notice board, painted in white on black with the words P.M.O. of Base Office. In war camps, label everything, so that he who runs may read.

In addition to the flag and the notice board, at night a lantern should be used, as constant messages at night may arrive, and the P.M.O. office should be easily found. One of the messengers should always be on the *qui vive* to receive messengers arriving and show them the office where one of the clerks sleep as if on guard there.

When the P.M.O. goes out on inspections, his orderly officer should accompany him with all note books and documents needed, and the secretary should remain in the office. It should be the rule that either the P.M.O. or his secretary should at all times be in the P.M.O's office. If both are away the public service is distinctly injured, and this is intolerable and means failure in war. The delay of half-an-hour in carrying out an order may entail great loss to the nation.

The P.M.O. of the base is now responsible for the clothing accounts and for the pay documents of all the Medical Staff

Corps employed in the campaign. This is a frightful trouble, and one from which the P.M.O. should be completely freed.

During one of my campaigns I could not get a pair of shoes for one of my men without the countersignature of the base P.M.O., an overworked official who lived thirty miles away from my post. All this clothing and document work should be handed over to the officer commanding Medical Staff Corps Depôt at the base, who should be completely responsible. Of this officer and depôt we shall speak presently.

Wherever the ordinary landing place of the troops may be, a printed notice board should be fixed there stating where the P.M.O. of the base has his office. This is very useful, and constant care is needed to distinguish the base P.M.O. from the *chief medical officer of the base hospital*. These two officials are constantly confused with one another by the uninitiated, and even by the rank and file of Medical Staff Corps who should know better.

In referring again to the need of secretaries for the different higher medical officials, we must remember that the secretaries learn an immense deal by their appointments, and this knowledge so learned while young, fit them as they grow old for the filling of the higher posts themselves. In fact a tradition is formed.

In all these attempts to free senior officers from overwork, and to develop new officials where needed, the aim is, of course, a double one. First to do absolute justice to the individual by freeing him from overwork, which may be, beyond the limits of human endurance, and which if persisted in, may permanently injure the health of the officer, but still more to paralyze and to remove altogether all excuses for work ill done. This has to be guarded against with the whole official class. They remain silent before the strain comes upon them, although they must know if they study their wants that failure is inevitable, then when they

fail they trot out the excuse of overwork. The aim of the nation is to remove all reasonable hindrance to good work, to place ample means ready to do the duty, and in case of failure to demand full enquiries, and insist on punishment.

Section II.—The Sanitary Officer at the Base of Operations.

Whoever may be appointed as sanitary officer at the base of operations of an army in the field has certainly his work cut out for him. He has before him arduous, unceasing and unpleasant work, which will as a rule bring him into contact with everybody at the base, and he needs much strength of character to carry out his duties.

So fully will he be occupied, that all idea of his fulfilling any other duty save sanitary work is completely out of the question. Under existing rules he is to combine the duties of sanitary officer, with superintendence of the embarkation of sick and wounded. It may safely be said that no one officer can carry out accurately such duties.

The base of operations is the most difficult place to keep in a sanitary condition.

Thousands of soldiers pass through it, staying only for a few days—and all the time in such confusion that sanitary neglects are certain to occur. To the base come crowds of contractors, sutlers, and the rabble which follow an army. Such persons are completely undisciplined in sanitary routine, and set at defiance all orders on the subject. To the base come hundreds of animals of every kind for transport purposes, as well as for the food of the army. These alone create enormous trouble from a sanitary point of view.

Epidemic disease is more likely to develop at the base than elsewhere, because ships arrive with men and animals from all points of the compass, and disease loves to revel in such agglomerations.

At the base are landed vast supplies of food for the army, all needing to be watched so that the rascality of contractors may be checked.

Every ship arriving in the harbour has to be inspected to see if infectious disease exists.

All this is for one officer a heavy task, and it is simply impossible for him to take over the sick transport duties of an army corps if he is to do his duty fully. That duty is in itself most onerous.

The brigade-surgeon appointed as sanitary officer is of course simply the staff officer of the P.M.O. of the base, who is finally responsible in all sanitary matters, but who uses the sanitary officer as his agent and executive officer.

The sanitary officer has his office close beside the P.M.O.'s office, with whom he is in constant communication.

His office is labelled with a signboard, clearly and distinctly, with his official designation so largely printed as to be visible at a distance.

If at all possible he plainly posts up that at a certain hour in the morning, and a certain hour in the evening he will be found at his office, so arranging as not to interfere with his out-door work, which is of the chief importance.

He sets up near his office a set of meteorological instruments, which should be supplied to him before leaving England, and he causes a correct observation to be made of the conditions of the weather by one of his clerks.

He arranges with the medical store depôt at the base to form either at the depot, or near his own office, a temporary laboratory where a more accurate analysis of water or food may be made than is possible in the front of the army.

Samples of water are frequently sent back to the base for examination, and samples of the food and drink for the army may be tested there also.

He needs a quartermaster, or other officer of the quarter-

master-general's department to be placed under his orders as an executive officer for the carrying out of the general sanitary work.

He needs a certain number of sergeants, either from the medical staff corps depot at the base, or from the troops or police at the base, as assistant inspectors, to report to him daily as to their districts.

He, in conjunction with the base commandant and P.M.O. of the base, decentralizes the sanitary responsibility to the various corps and departments, marking off accurately the space of ground for the sanitary care of which they are each responsible, and arranges with each unit that a certain number of their men are told off specially as sanitary fatigue men, or pioneers to keep the place in order.

He keeps under the central authority such portions of the camp or town as cannot be conveniently told off to special corps—and for the cleansing of these portions he arranges with the Q.M.G.'s department that a company of the regiment doing duty at the base is regularly handed over complete as sanitary police. If it be a tropical country he utilizes these men, not as workers, but as inspectors and district chiefs over native labourers, causing them to report daily to him of any defects.

He arranges for the construction of latrines and urinals in all public thoroughfares where crowds of men pass, and which can hardly be handed over to corps or departments to keep in order.

He moves the Q.M.G.'s people to provide such transport, either cart, or pack, or human, as will be sufficient to remove the filth from the collecting places in the camp or town.

He arranges for the formation of a quarantine depot for all suspected or infectious disease cases, and he obtains a detachment of medical staff corps to look after it.

He visits all butcheries and cattle yards, and sees that all cattle landed are in healthy condition and fit for food.

He visits the great bakeries at the base and sees that the flour is good, the water supply suitable, and the workers themselves clean and healthy, and that no sewage pollution exists.

He inspects the sutler's stores and condemns all bad supplies; and reports to the commandant all liquor shops existing against orders. In those shops where liquor is sold he sees that it is good.

He watches the brothels and the vagrant prostitutes that follow in the train of all armies, and if needful arranges for their registration and inspection.

He watches most carefully the condition of the shipping in the harbour, and either by himself, or by a naval surgeon told off as his assistant, has frequent inspections of the crews.

He notes the condition of the harbour, often loaded with floating sewage matter; and if needed he forms a marine sanitary corps to keep it clean. If on the sea coast he needs sewage boats to convey the filth of the camp outside the harbour, and there throw it into the sea.

He needs so many steam launches with crews told off by the naval transport officer to tow out the filth boats to the sea to be emptied.

He inspects every vessel arriving, especially vessels with native labourers, or men from the Levant.

He notes that the transport department tell off from their own corps a permanent burying party to inter all dead transport animals; and that the commissariat slaughtering subordinate have the means of removing entrails and offal for burying outside the camp.

He notes the water supply, and marks off the wells, &c. for washing and drinking purposes.

He receives weekly from the medical officer of the base hospital, or the medical officer in charge of the staff at the base, reports of prevailing sickness, and keep himself *au courant* with the statistical condition of the army as regards diseases which may be preventable.

He frequently inspects the cemetery or burial ground chosen for the base, and he sees that the graves are dug of a sufficient depth, and that an engineer N.C.O. is told off by the engineer officer at the base to look after it, to keep a plan of the ground and the graves, and that the place is securely fenced in and protected from wild animals.

In his capacity as a staff officer of the P.M.O. of the base, he has the full right to visit and inspect and report upon the sanitary condition of the base hospital, its grounds, latrines, and every sanitary detail—even though the medical officer in charge be his senior. He submits his report to the P.M.O. of the base, who moves the medical officer of the hospital to make any needful changes. He visits the hospital ship in the same way, reporting on all overcrowding, or on any unsanitary condition which may be prejudicial to the welfare of the sick. Being the staff officer of the P.M.O. of the base he passes freely through every place, as on "inspection duty."

He forwards to the P.M.O. of the base for record weekly, a statement that during the week he performed certain duties, viz. ;—

That he inspected the Camp or Town, and finds it—
" " Bakeries .....
" " Butcheries .....
" " Transport Lines .....
" " Quarantine Depot .....
" " Water Supply .....
" " Burial Grounds.....
" " Base Hospital .....
" " Hospital Ship .....
" " Sutler's Stores .....

That he inspected the Commissariat Cattle Depot .....
" " Brothels and Licensed Houses .....
" " Drinking Canteens .....
" " Harbour Sanitation .....
" " Filth Boats .....
" " Conservancy Transport .....
" " Sanitary Laboratory .....
" " Meteorological Instruments .....

Section III.—The Medical Transport Officer at Base.

It is to be borne in mind that the whole of the sick and wounded of the army, amounting in every campaign to thousands of men, have to pass through the base either to reach the base hospital, or to go to the hospital ship, or to be placed on transport ships for England. I maintain that this transport duty is highly important, and that it should be well and thoroughly done is only possible by making definite arrangements before-hand. Say that the railway station from the front is one mile from the base hospital, that the base hospital is two miles from the hospital ship, who is responsible for this conveyance of sick and wounded to both or either of these institutions.

To expect the sanitary officer of whom we have just treated, to do this work is to ask for an impossibility, unless he completely neglects his sanitary work.

The sick transport at the base needs not only a special officer, but it needs special men under his command. No officer and no man is to day specially told off to this duty, save only the sanitary officer who is already overworked, and who has no time for this trying duty. Can the base hospital staff do it? I say no, certainly not. Their duty ends at the hospital, and they should not leave its enclosure. Can the hospital ship staff do it? Certainly not again. Has the base P.M.O. then no one to do this work? The answer is he has no one whatever.

I maintain that if this duty is to be done well we need a bearer company at the base, and we need all the officers of its staff for duty with the Medical Staff Corps depot.

In addition to all existing medical staff at the base, I would add on one bearer company, and make it not only the transport company, but also make it and its officers and men the depot of the Medical Staff Corps in the campaign. To day the P.M.O. of the base is responsible for the pay, clothing, and equipment documents of the whole of the M.S.C. men in the army corps. I maintain that by this rule we overload the P.M.O. with a mass of entirely petty detail, and that he could not possibly do the work of the army corps and the base, and not break down. Further, the registrar of the base hospital is ordered to take over all other documents of the M.S.C. men in the army corps. We then have the documents divided between two different people, and in the end both would be overworked. We must simplify all this, and how? By posting a bearer company to the base, and utilizing it and its officers and men as a depot for the M.S.C., as well as for the transport duties. The need of a M.S.C. depot at the base is at once admitted. Men of the corps and officers arriving out have now no place to be posted to except the base hospital. I say that to post all these officers and men to the base hospital is to entail a great amount of disturbing work of the base hospital staff, and that it is unfair on them to do this. The true way is to give this duty over to the medical officer commanding the bearer company proposed for the base. He can act as transport officer for the base, one of his officers in the company can assist him in this onerous duty, and the other act as adjutant and caretaker of all documents belonging to the M.S.C. of the army corps, while the quartermaster would be in charge of all the clothing, documents, and of the whole of the M.S.C. in the field. To

this depot also the paymaster M.S.C. would be attached, and all would work very easily. It would free the base P.M.O., free the base hospital registrar, provide for all the sick transport at the base, furnish fatigue parties for the medical store depot, and the medical department generally. From it all men going to England would embark. To it all M.S.C. men arriving out would be posted. To it all men arriving from the front would be attached. With it would remain all the heavy kit of the M.S.C. in the field, and to it all young officers would be posted for food and shelter before going up country. Every one says that this company will fill up a want, and we know well that the transport work at the base is heavy, important, and now completely unprovided for. The medical transport officer then, whoever he may be, is absolutely needed. He is responsible for two things, viz., the receiving over of all sick and wounded at the railway terminus of the line from the front, the conveying them and handing them over to the base hospital, and further, the careful embarkation of the sick and wounded on board the hospital ships and sick transport ships for England. This work I call onerous in the last degree.

The officer needs to have at the Railway terminus an office labelled "medical transport office." Here he keeps any needful papers some stimulants, some medicines for urgent cases, and here he posts a sergeant's party who are always on the spot to receive news of sick arrivals, and to afford aid to small parties arriving. This N.C.O. and his three or four men are to be detached from the bearer company at the base just referred to. One of them acting as cook has coffee and hot soup ready for all sick convoys arriving from the front. When a train is expected a messenger is despatched to the bearer company camp to call up the fatigue parties and their waggons. The sick are then handed over from the waggons to the base hospital.

If needed, the bearer company at the base mans the ambulance train as far as the first etappen post up the line.

For the removal of sick from the base hospital to the ships, a like provision is needed. An office near the pier, distinguished by a red cross flag and labelled with a large sign board "medical transport office" is needed. Tents do very well for this purpose. A sergeant and a stretcher party of four men are always on duty here, one man acting as cook to have soup and hot coffee ready for the sick.

If possible a special pier is built for the embarkation of sick and wounded. This is most desirable, and will one day be the rule.

On the pier or near the office should be painted up clearly the hours at which sick will be embarked, generally every morning and every evening. This can be arranged by reference to the M.O. of the base hospital and the hospital ship.

Special shelter is needed near the pier to shelter the sick and wounded from sun and rain. Tents will do for this until a shed is built. Coffee, soup, and urgent medicines may be needed at this place. Stretchers should be ready, as at any time sick may arrive who need such help.

A code of signals to the Hospital ship are needed, referring to sick being ready to embark, convalescents to disembark, &c. Steam launch wanted, and such like.

If the ship lies any distance out a flag staff and a signal book are needed, also signalling flags. A telephone to the ship is very useful.

To every hospital ship at least two steam launches are needed to tow off the sick boats.

The P.M.O. of the base generally needs a steam launch in addition to do his duty thoroughly.

We still need special boats to convey sick men to the ship. Horse boats as now used are comfortless and shelterless. These boats should be part of the hospital ships equipment. A pattern boat is to be found in use between Haslar hospital and the men of war in Portsmouth harbour. At the ship's side a pontoon is needed for use as a floating pier beside the ship. The sick are lifted on to it and then carried in through a large receiving port.

Specially good stairs or companion ladders, wide enough to allow a sick man to be carried up are needed for the hospital ship.

The duty of the medical transport officer and his men ends when he hands over the sick to the medical officer of the hospital ship. When the boats are returning to the shore they take back all convalescents to the base. By definite hours fixed with regard to all concerned and published in orders, comfort is secured. The ten ambulance waggons of the 1st line of the bearer company with transport complete are needed with the company at the base. These waggons can be utilised for carrying medical stores at the base when not otherwise needed.

I think that no person who has studied this subject but will agree that if to day we have no unit allowed for this base transport work it is a distinct weakness in our war system. The plan I propose here is simple, and it would, I claim be a distinct gain to the sick and wounded.

Section IV.—The Medical Officer in Charge of the Base Staff.

This officer is not allowed for in the existing scheme of medical arrangements at the base of operations, but I do not see how the work there is to be done without him. The happy-go-lucky system is to say, Oh, anybody who is sick must get help from the base hospital, or from the hospital ship. To both these proposals I say no. In the first place the base hospital may be a mile or more away from

the base offices and camps. Again, there is no allowance made in the base hospital staff for an officer to be detached for this purpose, and if he is detached either he will complain of the double work, or the senior officer of the hospital will complain, and in the end the sick staff at the base will be unattended to.

There are a great mass of unorganized details of sorts always hanging about the base. The staff itself is very numerous, the clerks are very numerous, the correspondents, the contractors, the sutlers, the "travelling gentlemen," the transport employées, and a crowd of others all need to be provided with medical aid and medicines. For this purpose a medical officer is needed. He should be sent out from England for this work, and it should be a special appointment. He pitches his tent in the base commandant's camp. He puts up a sign board. He fixes an hour when he can be seen in the forenoon and in the afternoon. He is the adviser of the whole of the people before mentioned, and if they be slightly sick he attends them in their tents. If it be merely an illness for the day he detains them in their own tent; if they be seriously ill he arranges for their removal to the base hospital. He has a compounder from the medical staff corps who is ever ready with medicines to treat any diarrhœa or sudden illness occurring round the camp. He has also an orderly who assists the sergeant. This officer is quite essential. It is very unfair on the base staff not to give them a definite unchanging medical adviser, and to allow them to run the chance of being seen by a doctor from the base hospital is very unfair. A medical officer is allowed to take medical care of the divisional staff, but the base staff is more numerous and more important than is the divisional staff. We require then a medical officer to be posted to the base as in medical charge of staff at the base.

Section V.—The Medical Store Depot at the Base.

The supply of medicine to an army in the field is of great importance, and the means at our disposal for carrying out the work are worthy of study. We must, I think, look on the medical store staff at the base, and the advanced store depot in front, as the germ of a medical store branch.

The regulations allow a surgeon-major as in charge of medical store depot, and under him is a quarter-master who is the medical storekeeper. Probably *chief* medical storekeeper would be a suitable title for the surgeon-major whose position in reference to the quarter-master would be more defined, and the medical officer in charge of the advanced store depot who is now allowed, would also be a medical storekeeper under the chief storekeeper. Compounders, clerks, and packers are allowed by the regulations for the subordinate store work. Here again the shipment of the unit from England could take place together, and the two medical officers and the quartermaster and the men could all go out together in the same vessel. The junior medical officer assisting his chief at the base until the army advanced.

If the campaign is to be with wheeled transport, there is no reason why the waggon or waggons that are to carry the advanced stores should not be packed on board with the stores, so as to be ready when landing in the enemy's country needing only transport animals. Continental armies have a fuller medical store staff than we are allowed, and probably each division needs a medical storekeeper with his own waggon and transport keeping his division supplied.

The store depot should be on shore, and not on a ship in the harbour. Delay is occasioned by such a system, and messengers who cannot hire a boat have to lose time waiting on the shore. A red cross flag should be flown over the depot, and a large signboard put up to show people the way

to it, and the hours when it is open. It should be open almost always.

Several compounders seem to be needed at the base to make up pills and portable medicines for those in front with the army. We need to copy more and more the cartridge system of the army, and to issue all field medicines in the smallest possible unit. Constant difficulty is experienced in getting bottles in the field, and probably all dry drugs should be in tinfoiled card board, or tin boxes of a very small size.

All fluid drugs should be packed in very tiny units, say from two to four ounces, but highly concentrated.

All loose quinine in bottles is of course much in the way. Every ounce should be compressed, packed in tinfoil in card board cases, enclosed in tin match box like covers. This principle applies to all drugs. Great rolls of lint should be abolished, and square compressed patches of certain definite sizes used. Probably all antiseptic dressings can be compressed very much in bulk.

The most untractable and unmanageable article of equipment we now retain, is the ship medicine chest, supplied for stationary field hospitals. It is impossible to carry it in anything but a cart, and as carts cannot always travel, it is an encumbrance.

The panniers should supply enough drugs for all war purposes, save at the base of operations. But the medicine chest is an extraordinary heavy contrivance, and might be broken up into two panniers with advantage.

Great advantage would result from handing over the surgical haversacks at once to the bearer companies on mobilization. They would be familiarized with them before the campaign began. Eight seem hardly sufficient for a company. One is needed for each medical officer, and one for each N.C.O. of the company, in addition to the existing

eight, so that sixteen is more like the real number needed.

If once the medical store depot worked well, the various field panniers of comforts and equipment might gradually be handed over to it, instead of being in the hands of the ordnance department.

The more the medical service does for itself the more likely is it to be efficient.

It seems a very great waste of energy that to obtain any supply, however small, from the store the countersignature of the P.M.O. is needed. In war, all this countersigning should be diminished or abolished. Thefts of medicine are unlikely in war, and a certificate from the senior officer of a hospital that supplies are needed should be sufficient for the storekeeper, and, unless the demand be outrageous, he should meet it. To wait for the P.M.O's signature often entails long delay.

It would probably, tend to efficiency if the chief medical storekeeper at the base was placed in direct communication with a director of medical stores in the Medical Department of the War Office at home, certainly in so far as filling up to a defined standard. Having to report through P.M.O's. of the base, and communications to the surgeon-general in the front is a long way round, and delay is entailed. If a trusted officer held this post, there seems to be no reason why he should not communicate with the chief medical authority on stores at the war office.

I do not think that any of us in the rank and file of the medical corps have given sufficient study to this branch of medical service, nor have we, as in India, a body of medical storekeepers. Had we paid more attention to it, we should long since have developed a system of portable drugs compressed, easily distributed, and really fit for war. Until

quite lately we went to war as if we had the Apothecaries' Hall next door to us.

Just as we have a sanitary head and a medical head of Sub-departments in the Director-General's office, so probably a director of medical stores should be developed and known as head of a Sub-department, in the medical office at the War Office. On him would fall the responsibility for the preparation of stores for the field and for garrison, and by thus specializing him, doubtless progress would occur. He would free the director-general from some of his existing heavy responsibility, while still remaining completely subordinate to him. He should be an officer with war experience and knowing war needs. Under him the chief medical storekeeper at the base, and the medical storekeeper at the advanced depot would serve, and without further countersignatures, all reserve stores should be kept up to a defined standard.

As a means of familiarizing us with our war medical material, probably a pair of mule panniers should be at all times with a regiment in peace, and from it all drugs for the treatment of ordinary sick be taken. We would thus be familiarized with our medicines available in war time.

Gradually we might take over into our charge all special medical field equipments, such as stretchers, cacolets, and litters, and articles of hospital equipment. To-day centralization is the curse of our army, and it is painful to see the intense overwork this centralization causes in war time, to the ordnance store department. We should free them from as much of this as we could, by taking into our own custody in peace, as much of our special war equipment as we possibly could. To keep all our stores concentrated in Woolwich arsenal is to leave us ignorant of their use in war, and to entail immense labour in drawing them out for mobilization. Why do we not localize our stores

at the head quarters of every district, and so free the central arsenal from the enormous strain every war entails on it. We need in the army three things: 1st, *Decentralization*; 2nd, *decentralization*; 3rd, *decentralization*.

Section VI.—The Base Hospital.

One of the great developments made since the 1882 Egyptian campaign, is the laying down of a definite base hospital for location at or near the base of operations.

We all know bitterly how much the medical corps as a body, suffered from the tremendous strain placed on the Ismailia so-called base hospital—a hospital which was in truth simply a 200-bed, non hospital-dieted field hospital doing duty *pro tem*.

To-day we are in an infinitely better position for we have now given to us a defined base hospital for 500 beds.

The hospital care of 500 sick and wounded at the base hospital of an army in the field is the gravest, heaviest responsibility that can fall on any medical officer, and the officer who in our future wars successfully *runs* such a vast undertaking will stand forward as one of our best men. For not only will he have to deal with the 500 patients in hospital as in a great civil institution, but perpetually, day by day, nay hour by hour, the sick population will be changing by the arrival of wounded from the front, and the departure of sick and wounded to England and the hospital ships. It will be onerous in an enormous degree, and no reward will be too great for the officer and the staff who make it a success. Five hundred sick in any hospital are a great mass to care for, even with all the resources of civilization and years of defined working behind one as an aid, but to care for 500 gravely wounded soldiers or men broken down from typhoid or dysentery, hastily flung together on some savage shore,

removed from all civilized outside aid, and with no long continued tradition to aid in the work is a truly herculean task.

There is a road to success, and one only in dealing with such an institution—it is summed up in one word and that is *decentralization*.

I maintain that to successfully work any base hospital of 500 beds the most absolute, the most complete, the most extreme decentralization is needed. With decentralization success may come; without it chaos is certain.

And first of all it is needful to define the responsibility of the staff of that great hospital. Their duty is, I take it, bounded entirely by the hospital enclosure and grounds. Beyond that boundary they have no responsibility. And the reason for this definiteness is that we want to fix all responsibility for the carriage of wounded to the hospital, and from it on somebody else besides the hospital staff told off for nursing duties. I am aware of course that in the first few days of war, confusion of duties is liable to occur, and all must work for the good of the national forces; but I refer now to the weeks and months during which a campaign goes on, and through all of which the base hospital works at high pressure.

The duty then of sick convoys, either to or from the base hospital, is no part of the work of the base hospital staff. That duty falls upon the P.M.O. of the base, who can only provide for it by fatigue parties from the bearer company forming the Medical Staff Corps Depot at the base. The nursing orderlies cannot do this duty; if they do they cannot nurse the sick, and the sick will die, and the responsible officer of the hospital will have the power to plead the overwork of his men as an excuse for the breakdown of his hospital. No such ground of excuse should be left in his power; but the way to cut away all complaints is to provide otherwise for all outside duties.

Having thus limited the responsibility of the chief officer to the enclosure of his hospital, we have cleared the road for a definite fixation of responsibility.

Within the limits of his hospital he is entirely responsible, and it is his duty to make the machine work. But he cannot do impossibilities, and he cannot succeed without the means of success. Success means men to do the work.

The book of the army system of organization lies open for us to read if we care to do so. The method by which, say a force of thirty guns of artillery is built up, is by first taking the six guns of a single battery and making them a working unit, and then taking five such batteries, each individually complete, and joining them together, and adding a chief commander and an adjutant to the already complete individual units.

To apply this system to our hospital organization is to copy a successful system, and one which has stood the test of war. If we decide on massing 500 beds as a base hospital in war, the only sure way of building up a successful institution is by resolving it into decentralized completely self-contained units, and joining them together.

Measured by this standard the 500 bed base hospital resolves itself at once into two stationary field hospitals as now sanctioned, each containing 200 beds, and one field hospital for 100 beds, as now sanctioned. If we can develop officers who can accurately work 200 bed stationary hospitals, and 100 bed field hospitals, we have simply to add to these three units a centralizing, co-ordinating and inspecting staff to make the whole machine work.

It may be stated at once that to work any central cooking system for 500 patients, and the heavy staff (some 150 men) needed for their care, is quite impossible. A centralized cooking place could never possibly work without utter confusion and impossibility of success. To keep 500 sick in

one place may be needful in war, but to avoid the outbreak of disease amongst such an agglomeration of ailing men, the units must be separated far apart and ample space intervening allowed. The very space paralyses all central cooking. But apart from that if you do not make the chief doctors of divisions responsible for the cooking in their own divisions you will never have really good cooking. Each division needs its own special cooks, its own special cooking tent or shed, and for its efficient working the divisional doctor is responsible, and it is to him the chief doctor of the whole hospital looks if any error or neglect is made in his division.

In the same way the 150 orderlies and Medical Staff Corps men need their own separate cook house, quite apart from the the hospital divisional cook houses, so as to diminish all chance of confusion by overcrowding. In the same way the washing of the clothes and bedding of the sick needs decentralization. The washing for 200 sick is in itself a large matter, but if we are to have it well done we must make each divisional group do its own, and blame the doctor in charge if it be badly done. The chief medical officer of the hospital is not a man to do work himself, rather is he there to see that others do it.

If we built up the base hospital on these lines it would at once increase the staff of medical officers of divisions by four, viz. :—from eighteen now laid down for the base hospital to 22, which would be arrived at by the building up principle. Of course the P.M.O. of the hospital, and his secretary should not count as workers in the ward. They are administrative staff quite surplus to the ward workers.

Four extra medical men would be given in addition to the existing detailed strength.

If we then examine the quartermasters allowed, we find that if we built up our unit we would have a quarter-master for each 200 beds, and one for the 100 beds in addition,

and one would be needed as chief quarter-master, or a total of four quartermasters for the 500 bed base hospital. The work at a 500 bed hospital of this kind would be almost as heavy, and certainly more exhausting, than at Netley, and the risk of the one officer breaking down would be infinitely greater.

I do not think that the presence of warrant officers as laid down in the scale for the hospital, take away from the need for the quartermasters. Two of the three warrant officers are chief wardmasters, that is to say, nursing superintendents and not storekeepers, and the third warrant officer is steward or under storekeeper, so that they in no way share the quartermaster's responsibility. If quarter-masters in ample sufficiency are not allowed for these great masses of sick called base hospitals, it is certain that the medical officers will be called on to act as quartermasters, and will thereby be taken away from their more important skilled duty. It seems to me difficult to overrate the heavy work needed of a quartermaster in a hospital. In a base hospital the work for one officer will be simply stupendous, and the financial responsibility and the enormous mass of accounts needed of him will be an intense labour. Of course under the new rulings the P.M.O. of the hospital is financially responsible for all stores and equipment, but the executive charge still falls on the one quartermaster. So far as I have seen in the field, the work is too heavy for any one man to accomplish.

I take it that the building up system of organization would well come into force here, and that to each of the 200 bed sections a quartermaster would be allowed, one also being allowed to the extra 100 bed section, and one senior or chief quartermaster allotted to the whole to serve with the P.M.O. and the secretary, and to be a responsible head of the storekeeping department.

I would dread the loss of money and stores that would result if the one really responsible financial officer should fall sick.

Carrying out the same principle of building up a hospital by perfectly complete units joined together, we come to the subject of compounders. In a stationary hospital of 200 beds, probably two compounders are sufficient, and as the base hospital has 500 sick we would need in the same proportion at least five compounders, or one per 100 sick. One per 100 seems by no means overmuch, and this is allowed on the hospital ship where 200 sick are accommodated. The very custody of the medical stores for a hospital of 500 beds is not a little thing, and probably five compounders—that is two for each 200 beds, and one for the 100 beds extra are really needed. There must be a night compounder on duty in so large a hospital, and where wounded arrive at all kinds of irregular hours, and the danger is that one of the compounders would fall sick from overwork. In this case, as in others, the building up the unit by completely defined minor units is probably the true system.

The washing of the clothes of the sick and of the attendants in a large 500 bed base hospital is all important.

While we talk of antiseptic treatment of disease we must ever remember that the first great antiseptic agent in a hospital is the washing machine and the laundry staff. It is in vain to attempt antisepticism unless this be provided for.

The regulations allow two washermen per 100 sick in the field hospitals, and the same proportion in the stationary hospitals, viz., four for 200 sick.

On the building up principle this would give ten washermen for a 500 bed hospital, and this is barely sufficient with machines and every other aid.

Nothing is more degrading than to have our sick men covered with lice as they were at Scutari. The only

true lice killer is the laundry boiler, and the constant change of bed and personal linen. The experiences of Ismalia in 1882 are completely to the point in this matter. The soiled clothes of the sick were sent on a regular wild goose chase from Ismalia to Cyprus, and thence to Alexandria, and were finally washed by the marines there. What marines can do, our own hospital attendants can do, if regulary told off for the purpose. We need then at least ten washermen for the base hospital, and if we take these ten men away from the existing ten supernumeraries allowed to the base hospital it only allows two men to do all the water supply, and all the conservancy, *the all important burning question of the conservancy* for the 500 sick men. Sir Edward Morris in his evidence before Lord Morley's committee distinctly throws the responsibility for the washing on our own hands, and all questions on this subject are at rest by this declaration.

One has little or no faith in contractors supposed to be found for us in war time. If we take out washermen with us the clothes will be washed. If we do not take them out the clothes will not be washed. This is after all the final result.

We have said just now that if we take away ten washermen from the supernumeraries now allowed to the base hospital we have only two men left for all water supply and conservancy work. On the building up principle we should have twenty-five men allowed us for this purpose, that is to say five men per 100 sick are allowed in the field hospitals, and as the base hospital is for 500 sick, five times as many at least are needed.

We would require thus at least 23 men added to the base hospital staff for water supply and conservancy purposes. Nothing can be more terrible than defective conservancy arrangements near a hospital, and the only way to deal with the subject is by allowing men definitely for the purpose.

To employ a nursing orderly who is tending the wounds of the soldier to be utilized in any way as a conservancy man would be a fatal step, but if a definite supply of men are not available, such a proceeding will be necessary.

One has the greatest dread of these subsidiary services being undernamed, because it is quite certain that if they be undernamed the nursing orderlies must needs be fallen back upon for the performance of a work, fatal to their fitness for nursing duties.

Section VII.—Hospital Ships at the Base.

On this I have but a few words to say. We have now reached, I think a high pitch of efficiency in this direction, and there is no reason why a hospital ship should not be a very perfect machine. One certainly seems disappointed at the small sick space the hospital ships really allow, and the engines and coal bunkers occupy much room in all these vessels.

Great advantage results from the hospital ship being connected with the shore by telephone. This idea was carried out at Suakim by Deputy-Surgeon-General Hinds's orders.

A brief code of signals by flags between the ship and the shore is very useful. This also I learned at Suakim. Two or three steam launches are needed for the Hospital ship to tow the sick boats from the shore.

A special sick transport boat is needed to take off the sick and wounded from the shore to the ship. Such a boat is to be seen at Haslar hospital working in Portsmouth harbour. There is need of a boat to take patients out for airing in the harbour, and to get them free from the hospital ship for a time.

The companion ladders of the ship should be very wide and well balustraded to admit sick men being carried up in a

carrying chair. A carrying chair is very useful on board ship to give invalids an airing. A pontoon stage might be used beside the ship on which the sick could be lifted before going on board.

A painted sign board is needed on the pier showing the hours that steam launches run between the shore and the ship with sick, and the visiting days and hours on board the ship.

Section VIII.—The "Sick Transport Ships" for England.

Great advantage results from the special sick transport ships regularly fitted up as hospitals being utilized between the seat of war and England. It is really impossible to care for sick and wounded men in the ordinary transport vessel, and it seems unfair to take a man out of a highly organized hospital ship and send him to England in a transport vessel not specially fitted as a hospital. The suffering entailed by the want of water closet accommodation alone is excessive.

But where the evil is very marked is in getting together a scratch team of doctors and medical corps for these scratch sick transport ships. If no definite ship is fitted out from England, when wounded leave to go home the P.M.O. must gather together any doctors he can lay hands on, and thereby must weaken the definitely equipped field units. If no medical corps men are specially provided in England for nurses we must draw men from some unit where they can ill be spared, and where, through want of men, the sick will be uncared for. In every war then the specially fitted and manned sick transport ships are needed as well for the well-being of the sick, as to prevent the doctors and staff originally detailed for the field being utilized for the return journey. It should always be remembered that a ship specially built for a hospital ship can

always be utilized as an ordinary military transport, but the reverse is not the case.

There will always be a dangerous gap in our line of communications until the sick transport vessels are as sure to be found present as is the base hospital. Two at least are needed to be perpetually going back and forward during the campaign between England and the base.

Section IX.—The Medical Staff Corps Depot at the Base.

We have dealt with this subject very fully in the paragraphs about a transport medical officer at the base. The Medical Corps of an army corps in the field must be looked upon as a regiment whose head-quarters is at the base, and whose companies in the shape of field hospitals and bearer companies are scattered along the communications and on the fighting front. But if it be a regiment it needs a definite depot at the base with a commanding officer, an adjutant, a quartermaster, and a paymaster.

I propose that the bearer company at the base fulfils these two functions, viz., that of depot and transport company. A bearer company has three medical officers and one quartermaster and some 57 men. The senior officer to be transport officer and to command the depot. The second senior officer to be adjutant, the third officer to assist in the transport work. The quartermaster to keep the clothing and equipment documents of the whole corps, and a paymaster of the Army Pay Department to be attached as corps paymaster.

This will free the base P.M.O. from all responsibility, and the documents now sent to the registrar of the base hospital will be kept together in the hands of the adjutant. A certain number of the men of the company to be given to the sanitary officer for his police duty, fatigue parties for the

medical store depot to be supplied, and from the depot company any casualties in the hospitals in the front to be filled up, and all small parties arriving in the country to be attached for duty.

All medical officers landing in the country to find here the needful shelter for the first day or two.

The letters for the officers and men of the Medical Corps to be taken care of and forwarded by this company who would tell off a trustworthy N.C.O. as postmaster for the M.S.C.

This depot seems to me to be absolutely needed, and without the transport company at the base I do not see how the transport work is to be done. Many officers to whom I have mentioned this idea consider it would be a great advantage.

Section X.—Reserve Hospitals Parked at the Base.

Whenever the army lands in an enemy's country the reserve hospitals needed for the Army corps should be landed and their *personnel* and *materiel* kept together in camp at the base. If this is not done and their personnel is utilized for other purposes, a day of reckoning is sure to come.

We must learn to see hospitals standing ready and idle, waiting to be employed; just as we see batteries of artillery standing idle waiting for use. Up to the present day we have so rarely seen medical units waiting ready to be employed, that we look upon it as quite wrong when we do see them, while we see a whole army quietly at rest waiting for the day of battle, that comes for a few hours once in every ten years.

At once when a field hospital and its personnel and materiel arrive at the base, they should be disembarked and pitched in some suitable place, and equipped with their transport and special local field equipment. Officers and men should be practised at the pitching and striking of their camp, and

every box and package examined and made ready for instant marching. Allowing the equipment to lie in the Ordnance depot unsorted and unchecked, or allowing the personnel to be drafted hither and thither is certain in war to lead to confusion.

When once the hospital has been found complete, and its commanding officer reports it as ready, then various duties may be assigned to its officers and men, always providing that they return to their camp at night and remain under the discipline of their own officers. Nothing so delights bad idle orderlies as to be moved from under their officers frequently. The good and the bad are then confused together, and discipline is powerless for good. Besides it must always be remembered that if the officers and men are moved about, the responsible commanding officer may any day allege it as a course of failure in the after working of the hospital. This complaining must always be borne in mind in every official organisation.

Section XI.—The Statistical Officer to the Army Corps.

A most valuable step was taken in the recent Suakim expedition in attaching a special statistical medical officer to the force, for the purpose of assisting the P.M.O. of the troops in the field by compiling the sick returns of the army. It is, of course, a moot question where such an officer with his clerks and office establishment should be located. He is without doubt the staff officer of the P.M.O. of the entire force, and in theory is one of his official assistants and should be with him in the field in camp. But in the recent expedition the officer was located at the base, and doubtless this precedent will govern future action.

At the base, commodious office accommodation is obtainable, and this is not possible at a camp in the front, and bulky returns cannot be easily carried with the marching force.

At the base all is possible, and statistics can be accurately kept. Nothing could be more painful than the former system of work, when a P.M.O. without any secretary and overburdened with executive functions, had in addition to compile the statistics of the force for the English home authorities.

This trouble will now pass away from the P.M.O., and a distinct statistical specialist will be found in all armies in the field. The statistical function of the P.M.O. in front should be merely to compile a general statement, not classified in any detail of the number of men sick in the hospitals of the army. This is a very simple matter but the compilation of accurate medical statistics dealing with each individual illness or wound, is a laborious task and needs time and special office accommodation.

Doubtless the statistical officer at the base should be bound to submit to the P.M.O. of the force immediate information of any excessive existence of special disease, and should also communicate freely with the sanitary officer of the army and of the base.

To facilitate returns of sickness, advantage would accrue from having very simple sick return forms for war, and reducing them to a minimum. All our returns, like all our drugs, were until recently based on the customs of peace hospitals, where paper and time are of no importance. For war the most portable forms, simple as A.B.C. are needed, and in this respect we have much to learn. The Swiss Medical service have a pocket book for Medical officers which contains in a singularly portable form the various returns needed in the field. We need to copy this system in many ways.

We are gradually changing from an elaborate peace system, to a really workable war system of work.

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Conclusion.

In the preceding pages I have dealt with the various points which seem to need examination in the medical working of the base of operations. There are, no doubt, many other heads in the same subject which have escaped my attention, and which those who have fuller experience will at once detect. It is absolutely essential that we should all contribute to the building up of the war efficiency of our own branch of the service for the sake of the nation. I do not know where to-day to turn to find a record of what the doctors needed at Scutari or why in the past the medical side of campaigns have been such infinite labour to the officers concerned.

Military history has up to to-day been a history of the battle only. We need very much a history of the means by which the army was placed in position for the fight, and how the wounded and the sick were cared for. The daily increasing value of the individual soldier as he rises to the status of a citizen, renders it essential that every effort be made for his proper care in the field if wounded, and we must study calmly in peace what is needed for war. Thus only can success attend our efforts.

We are military specialists dealing with a special side of military work, but up to recent years the subject has not attracted much attention. As the soldier rises in the scale of citizenship, the means needed to care for him must also be developed. It is as a contribution to that development these paragraphs have been written.

GEORGE J. H. EVATT, M.D.,
Surgeon-Major A.M. Staff.

Royal Military Academy,
Woolwich,
August, 1885.

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FOR PRIVATE CIRCULATION ONLY.

A PROPOSAL TO FORM

AN

"Army Medical Institution"

ON THE

LINES OF THE ROYAL ARTILLERY INSTITUTION

AND THE

ROYAL ENGINEER INSTITUTION.

The following suggestions are circulated for general consideration.

IT is proposed to establish an "Army Medical Institution" to carry out the same line of work for the Medical Service of the Army, as is performed by the two Institutions of the Royal Artillery and Royal Engineers for their respective regiments.

Objects.—The object of such an Institution would be to afford instruction and information to the Officers of the Medical Service on all subjects of interest connected with their special work.

The methods of achieving such objects would be by—

(*a*) *Publication of a Journal* to be called the "Journal of the Army Medical Institution"; or, of the Army Medical Staff.

This Paper to be issued monthly (quarterly at first), and its cost to be defrayed from the subscriptions to the Institution. The Paper to deal with all professional subjects interesting to the Army Surgeons, and to be a means of collecting and publishing papers and information on military medical subjects. The absence of such a journal in our army is much felt, and all foreign medical services have such papers.

(*b*) *Institution of a Gold Medal* for the best essay or paper on subjects referring to military medical work, in its broadest sense.

(*c*) *Formation of Corps Libraries.*—To assist, gradually, in the further development of libraries for the medical staff officers in various stations.

(*d*) To found, eventually, a suitable building as an Institution, either in London or Aldershot, or elsewhere, where lectures could be delivered on medical military subjects.

(*e*) To develop local Branches of the Institution at the larger garrisons where scientific lectures could be delivered.

Subscriptions.—Annual Subscriptions to be on the same scale as the R.A. Institution, viz :—

	£	s.	d.
Surgeon	0	16	0
Surgeons Major	1	0	0
Do. over 20 years' service	1	5	0
Brigade Surgeons and Deputy Surgeons General	1	5	0
Surgeons General	*ad libitum.*		

Entrance Subscription as in R.A., £1 for all Officers.

Committee.—A Committee to be appointed to consist of the Officers filling the following appointments :—

Head of the Medical Branch, War Office.
Do. Statistical Branch, do.
Staff Officer, M.S. Corps, do.
Principal Medical Officers London District.
Do. do. Woolwich District.
Do. do. Netley do.
Do. do. Aldershot do.
Medical Officer, Royal Arsenal, Woolwich.
Do. Duke of York's School.
Do. Sandhurst College.
Three Medical Officers from Woolwich.
Do. do. Aldershot
Do. do. Portsmouth.
Do. do. Netley.
Two Medical Officers Brigade of Guards,
&c., &c., as needed.

Secretary.—The Secretary to be an Officer chosen from the Army Medical Service, by the committee, and his name referred to the Director-General A.M D. for approval. The War Minister to be asked to sanction his appointment, with pay and allowances of his rank for five years, as in R.A. and R.E. Institutions.

The Institution to make any further payment deemed necessary as a recompense for services.

The *Secretary* to be the editor of the journal, on the responsibility of the committee. The committee to define the rules as to the management of the journal and supplement. The lines of the R.A and R.E. journal to be followed in the main, both as regards the journal and its

supplements. The formation of the journal to be the first matter taken up by the Committee. Any foundation of an Institution Building, &c., to follow in the future.

Annual Meetings.—An annual meeting of the whole of the members to be held annually in London, during the month of May in each year, to discuss all questions connected with the Institution.

Local Branches.—The central committee to make such grants as may be available for the support of the local branches.

Honorary Members.—Officers of the Royal Naval, Indian, Militia, and Volunteer Medical Service to be eligible as honorary members, on paying the subscription of their corresponding rank in the regular medical service.

G. J. H. E.

November, 1885.

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THE CADET CORPS

OF THE

VOLUNTEER MEDICAL SERVICE.

Gentlemen,—On the 13th April, 1883, I was enabled to give an address to the representatives of the London Medical Schools, and to many Volunteer surgeons, on a proposed development of the very incomplete and inefficient Volunteer Medical Service.

In that address, I pointed out that the existing Volunteer Medical Service, consisting as it does, of a surgeon or two with each battalion, aided by small regimental ambulance detachments, is wholly unable to meet the demands of war, and that a catastrophe as dreadful as our sad Crimean breakdown, will certainly happen to the Volunteer Forces of this country, if they are called upon to take the field with their present absurd medical arrangements.

I pointed out the complete absence of divisional bearer companies, the non-existence of any field hospitals, and the very defective knowledge which many Volunteer surgeons have as to what are the medical needs of any army in the field.

You must remember, that if the Volunteer surgeons themselves allow the Volunteer army to remain satisfied with the existing defective medical organization, the blame will lie greatly on the heads of the Volunteer medical service. These officers, who should be trained specialists, completely cognizant

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of what they need for war, control very much the opinion on medical questions in the ranks of the volunteers. If they remain quiescent, and show no signs of desiring an improvement in medical organization, the average volunteer will trust that all is well, and progress will not come.

It is unfortunately, too true, that many Volunteer surgeons are completely untaught as to what war organization should be. They seem to imagine that war is an affair of marching past in a pretty uniform, with a nice band.

A very terrible awakening will come to such officers, if ever war supervenes.

They will then learn, as we did in that bitter Crimean campaign, that a medical corps, completely equipped, manned, and disciplined, is as needful for an army, as is artillery, engineers, or any other branch of the army.

The want of such a corps has been bitterly felt in our army, and to-day some progress has been made in the regular service for its complete development. The volunteer service remains, as yet, on this head, as unfit for the realities of war, as if a Crimean campaign was never fought, nor any lesson learned from its frightful experiences.

The comparative ignorance of the civil profession of medicine, of all that concerns war medical organisation, has had something to say with this state of affairs. Sympathy comes from knowledge, and where no knowledge exists sympathy will not be very great.

At that lecture in April, 1883, I proposed that steps should be taken to supply the want of a Medical Corps for the Volunteers.

Such a movement does not in any way interfere with the battalion medical arrangements of the volunteer service, but aims at embodying a medical corps distinct and separate from any regiment for the purpose of manning the divisional bearer companies and field hospitals, without which any army is merely a marching-past show and a deception.

The reasons for the organisation of such a corps have been very fully explained to many of you. Many thousands of war maps of medical arrangements have been distributed through the

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country, and, at any rate, the effort has been made to educate your public opinion as the only true way to promote the needed reform.

The knowledge of medical war wants, and the means of remedying them, has been carried from the vague indefinite whisperings of the clubs into the very centre of the medical schools of this country: and you, who will in five or six years from these days be controlling a vast amount of public opinion in your towns and counties, will have at any rate a clearer idea of what is needed by soldier doctors than the average civil doctor has to-day. In this way an enormous bond of sympathy will be developed between the civil and the soldier doctors, a sympathy most needful for both, and highly advantageous to the military efficiency of the national forces.

We asked you in April, 1883, to submit yourself to discipline, and to learn in your student days the drill, the routine, and the method of work of the ambulance aid of the army.

We pointed out to you that it was only by this systematic and defined path of labour that you would build up on a true basis the power of command so needed in the now autonomous condition of the medical corps.

You have responded in a very devoted and admirable manner to that request. Without uniform, without bands, without any encouragement to urge you on, you have in many schools laboured at the drudgery and the fatigues of a recruit's drill, and have mastered at any rate the elements of ambulance work. Although it was possible for you to have received a capitation grant, had you joined an ordinary volunteer corps, where you would not have learned ambulance drill, you have chosen rather, at your own cost, and without any Capitation grant, to stand by the medical corps idea, and I hope you will soon see it a positive living movement.

In thus giving up your leisure for an abstract idea you have made a great sacrifice for your country, and you have learned how to take your share in what should be the noble duty of every citizen—the defence of his country against aggression.

Nobody would regret more than we all do that as yet we cannot tell you that the Capitation grant is sanctioned for you, but it is hoped that it very soon will be, and that the anomaly

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which gives to a medical student learning only ordinary infantry soldiers' drill a Capitation grant, holds it back from a student, who, in addition to an infantry soldier's drill, learns also the technical and more elaborate training of the soldier of the medical corps.

Already good has come of this training and instruction in ambulance work. Young medical men have left the schools and gone into the country to enter practice, completely awakened in the needs of civil and military ambulance aid, and this is a great point gained.

It is absolutely but the commencement of a completely utilitarian movement. Not only does the ambulance movement include the full training of an infantry soldier in all his infantry duties, but it grasps the technical training in ambulance drill, and also the definite study of hospital organisation and administration as a science—a subject in which, up to the present, young medical men are completely untrained, but which is now, through this ambulance movement, getting a foothold in the schools.

Any medical education which does not include teaching in the construction and organisation of hospitals, the details of nursing, the duties of the subordinate staff, the control of the cooking, laundry, and administrative services, is incomplete, and it may safely be said that the want of training in these details of the students has been full of drawbacks to the medical men in after life. In the working of public hospitals, poor law infirmaries, great public medical charities, emigrant ships, and in hospitals in foreign countries, medical men are every day being called upon to take more responsible functions, and this definite training in the clear and logical military system of working hospitals will be of great benefit to young medical men.

What is now hoped for is that in a few months a definite corps organisation will be given to the scattered school companies, and that an adjutant from the Army Medical Department, a specially trained officer, will be appointed to supervise the technical instruction of the recruits.

You are perfectly well aware that it was never intended to employ the students of medicine as private men in a medical corps in war time. They are far too valuable for such a purpose,

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but just as in a military school a cadet does all the routine of a private soldier's work that he may learn it all thoroughly, so we ask you to learn all the duties of a private medical soldier, so that when you pass out into the world as qualified medical men you will, through obedience, have learned to command, and knowing every minor detail of the private soldier's work, be in truth the best of commanders. When you leave the schools you will pass out into the country to officer and to command the outlying companies of the Volunteer Medical Corps, which we desire to see formed, with its battalions and companies, in every great town and every county in the three kingdoms.

It would be impossible to mention here the officers of the various schools who have at immense self-sacrifice aided in this movement.

To Mr. Cantlie, of Charing Cross Hospital, the very greatest debt of thanks are due for his untiring devotion to this work, as without him little would have been done.

Dr. Squire, at University College, has also laboured most devotedly.

Mr. Norton, of St. Mary's, Mr. Clarke, of the Middlesex, Mr. Langton and Mr. Willett, at St. Bartholomew's, and Sir Andrew Clarke, at the London Hospital, have also aided the movement by their sympathy and help.

Sir Wm. MacCormac, Dr. Ord, and Dr. Makins, of St. Thomas's Hospital, have also cordially aided the movement.

Dr. P. A. Young, of Edinburgh, and Dr. Cathcart, of Edinburgh University, have also given valuable aid.

All that now remains is to await the recognition by the State, and to educate in the meanwhile the public in the needs of such a corps.

This movement has for its aim hospital and ambulance efficiency in war time for the Volunteer army, but you must not of course imagine that such *alone* is the special *rôle* of the soldier doctor.

We have in the army a double function. One is that of hospital administration to arrange for the care of the soldier

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who has fallen sick in war time from wounds or disease. Since 1873, the whole aim of the medical service has been to achieve this war hospital efficiency, and it may safely be said that the goal is now in view. It requires men, equipment and peace training, for war needs. All this is now being developed.

But it is in his far more important aspects as a sanitary disease preventer that the medical officer of the army has before him still an enormous work to accomplish. It is our mission so to guard the soldier against disease conditions as to enable him to do his duty in the fighting line with as full an efficiency as possible, and this is the whole question of future wars. The lesson of Egypt with its 583 sick per 1,000 fighting soldiers is still haunting us, and we can see that an army going sick at such a rate is really melting away from disease without a shot being fired. Hospital efficiency is very important, but it really means too often waiting at the door of a war hospital to admit men who should never have gone sick had sanitary knowledge the power to carry out its aims.

This is the whole work of the future, and it still remains for us to consider how far the sanitary authority of the trained specialist should be limited in the military machine.

It is in vain for us to boast of our well-equipped hospitals and well trained staffs, employed for what purpose?—to attend to the wants of men who should never have been sick.

Such prevention of sickness forms a most important part of the army surgeon's work, and in this respect we are probably considerably in advance of the average civil doctor, who still remains a treater of disease which under good sanitary conditions should never have existed.

I refer to these sanitary duties of the army surgeon, lest you should imagine that a mere effort to secure efficient hospitals for the sick is alone our aim. Not at all. We want to so organize our army that the special knowledge we possess as to the food of the soldier, his housing, his clothing, the injurious effects of unphysiological drill, the breakdown caused by ignorance of climatic disease causes, may have the fullest opportunity of exerting its power in guarding the English soldier against disease.

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How this is to be accomplished, and how we are to put our knowledge into direct practice, is a question only appearing on the horizon.

The very fullest training in the structure of the human machine, its method of work, its causes of breakdown, must be diffused amongst every rank of the army, and it is only in this way that preventible disease causes can be abolished in the service. You can thus see how large a field of work, apart from hospital efficiency, awaits us all in the regular, as in the volunteer service, and in carrying out to its logical conclusion this disease prevention work, we must put on one side all the past traditions which limited the control of the doctor to the treatment of sick folk, and rise to the fact that sanitary science has a distinct work to do in the important task of general army command.

Either we must so educate the army as practically to make its leaders as completely trained in disease causes, and in physiology, as we are ourselves, or our power in issuing sanitary regulations, which, save in the very front of the enemy, will have the authority of definite orders, must clearly be recognised.

In studying hospital organisation and ambulance work, you will accordingly remember that it forms but a portion of the army surgeon's work. You must see that, whether we will it or not, the medically trained officer of the army is becoming the most important factor in the military family. To fit ourselves for our growing duties we need discipline, the highest *esprit de corps* and complete and self-sacrificing devotion to that private soldier on whom in peace and war the heavy pressure of duty falls. This has ever been in the past the aim of the medical service, and as the ultimate human individual rises in value the trained specialist who knows how to guard that individual from sickness, and place him in the best condition for doing his work, rises with him.

Submit, then, I pray you, to discipline in your school companies, master the not intricate details of military organization, see from within the working of the military machine, and I maintain you will never regret such knowledge.

You must look upon yourselves not so much as a special profession shut off from the people, but simply as an *elite* body of fully educated men knowing life in its every form, com-

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pletely master of the human machine, and skilled in that "new learning" without which no man at the present day can claim to be a fully educated man. If you think that power and honours and the fullest national recognition will fall to your share simply by standing still and waiting, you are grievously in error. No class ever rose to power without excelling the others in knowledge, in discipline, in cohesion, in *esprit de corps*, in value to the community. Neither birth, nor fortune, nor influence alone can keep you back nor can aid your progress.

Your progress comes entirely from your value to the community and your power to discharge a fuller range of duties than those who have been your predecessors. You have to win power and authority, and the highest position in the state, simply by being the best class of citizen in that state. Submit, then, to the drudgery of a recruit's drill, submit yourselves to the orders of your seniors, and remember as you bend over the stretcher in your ambulance drill that it is necessary in this work to "stoop to conquer." We are now awaiting the definite recognition by the country of the status of the medical volunteer. Until he is recognised and organized in every country, war efficiency will be absent from the volunteer service.

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THE RELATIONS

OF THE

CIVIL AND MILITARY MEDICAL MEN IN BRITAIN.

BY

JAMES CANTLIE, M.A., M.B., F.R.C.S.

FROM SPEECHES DELIVERED IN THE UNIVERSITIES OF EDINBURGH AND ABERDEEN, TRINITY COLLEGE, DUBLIN, THE VICTORIA UNIVERSITY, AT THE MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH, AND THE MEDICAL ASSOCIATION, DUBLIN.

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THE RELATIONS OF THE CIVIL AND MILITARY MEDICAL MEN IN BRITAIN.

IN no other country are the relations of civil and military medical men so peculiar and so apart as they are in Britain. It would be right, perhaps, to say that no relation exists between these two bodies of the medical profession, for they know so little of each other, they care so little about each other's work, that they may be said to bear no kinship. One great reason for this is, no doubt, that the doctor has to choose one or the other branch, and abide by it for life; and our army being for the most part a colonial army, the main body of its medical officers are required for foreign service, thus are we separated, the civil from the military, until but little touch is kept between the two bodies. How different is it in all other European countries; the medical men all over Europe are called upon for skilled service in the army for a time; they leave it after a short service, still in touch with it, and still having the military doctors on active service ever present amongst them.

Until Surgeon-Major Evatt came amongst us, and explained to us (civil practitioners) the work of the medical staff of the army, we were completely ignorant of the training and proficiency of the army surgeon; of the work accomplished by the medical department; and of the improved standing in the army the medical staff, and thereby the medical profession generally, had attained after a long up-hill fight by our military medical brethren.

The rapt attention with which this officer was listened to in Edinburgh, Dublin, Aberdeen, and in almost every medical school in the United Kingdom, showed that there is much wonder excited by his lectures, and from all present a confession of ignorance was elicited, as to the work done or expected by the medical staff of the army.

In fact, so complete is the ignorance of the army work by medical men in civil life, that the medical profession may be classed under two heads, totally distinct, not only in their habitat and mode of living, but in the work which they are called upon to do. The members of one class—the civil—have no cohesion in their ranks, are, in fact, separate entities, and owning no master, develop into good or bad workmen according as their surroundings and their youthful training engender. The civil practitioner has his duty to perform in the *cure of disease*, and he has no further training whereby he can undertake any of the other branches of his many-sided profession. The military doctor, on the other hand, also performs his part of *curing disease* when called upon so to do. But neither his duty nor his training end there. He is a *trained specialist* in hospital administration and in matters relating to hygiene. He has to do with, and is trained in, that part of his profession which deals with the *prevention of disease* as well as with the cure. He is called upon to pronounce as to the sanitation of barracks, private houses, camps, ships, base and field hospitals, &c. He is trained practically in all matters of hygiene which especially relate to the prevention of disease. The questions of dieting, inspection of food, clothing, gymnastics, drills, all come under his ken.

How is it with the civil practitioner? How can he know when anything is wrong with the sanitation of his hospital? *When his patients suffer from septic poisoning;* when, after an alarming death-rate he imagines there must be something taking place which even defies carbolic-acid dressings. What happens then? The ward is emptied and some-one is called in by the hospital committee or secretary. Who is the some-one?—the doctor does not know—he is called a *man*, and he patches up

the leaky pipe and the patients are replaced in the ward; and the fact of whether the offending pipe was properly treated by the "man" or not, is known not by the doctor testing the drains, but by whether or not the patients die when they are replaced. The doctor cannot test drains. In the first place he is not trained in the work, and in the next place the public pronounces it beneath him. That is relegated to some one else, "an engineer,"—"a plumber." Let the doctor continue to call him "a man," and he then displays how completely ignorant he is of whose duty it is. In fact, the doctor is not responsible for the health of hospitals in this country. He is not responsible for the quality of the food supplied; he has practically nothing to say on the nursing committee of the hospital. The medical administration even of the hospital is not carried on by him, nor is his advice on the subject of much value in his hospital committees; he is ignorant of sanitation too, a branch of hospital work which surely it might be believed belonged to him. No! he is untrained in these departments and consequently of little avail. The military medical men are the only branch of the profession who are trained in this special work. They are held responsible for the condition of their hospitals, and for the food supply, as well as for the treatment of the diseases of their patients. This trained group of specialists of our own profession, how do we treat them? Practically, we ostracize them. Is that too strong? Consider a moment. Do you happen to live in the neighbourhood of a military centre? Do you know the medical officer in charge of the centre? Do you know he is called the principal medical officer for the Home district, Scotland, Ireland, &c.? Did you call on him? Did he call on you? No. Why not? Because you know nothing of him, nor he of you. He is a soldier doctor. What have we to do with each other?

Thus it goes on until, I say, there is neither touch nor sympathy between the one and the other. After all, one critic says, "what does it matter, we have got on very well without each other up to the present, why bother yourself about it?" The same man would say, we got on very well before the

introduction of modern science. What good has it done? What can we learn from the army doctor? *First*—A wider acquaintance with medicine and surgery pure and simple, knowledge gained in malarial swamps, cholera camps, famine typhus, arctic cold and tropical heats. *Second*—A precise method of recording disease, such as the British Medical Association is now trying to get, in a "collective record of disease." A worthy and wise attempt, but one likely to be of less avail than it might at first appear to be. Why? Because but few practitioners keep a record of their patients' illnesses which is of any real use. But they can easily be brought to do it, the same as they do in military work? But the army doctor is practised in the work, and trained in recording disease. The civil practitioner surely went through the same medical course as those who joined the army, and must have done clerking and taken notes in the hospital in which he was taught? But the military doctor went on with the work, the civil doctor stopped it. As a boy learns Greek at school, to forget all but the alphabet when he reaches adult years; so as a boy one learns note-taking in one's hospital, but as a man, from want of practice, the civil doctors, with but few exceptions, desist from taking any but the most scurvy jottings. The military doctor, on the other hand, spends his life at it; hence we can learn much even at our own business from a closer acquaintance with our army medical brethren. *Third*—Hospital administration is part and parcel of the duty of the military doctor. Of this the civil hospital surgeon and physician is totally ignorant, and he may even be forbidden by the hospital charter to have anything to do with it, as in the case of Sir Patrick Dun's Hospital in Dublin, where the staff are in that position. Do you mean by hospital administration arranging the finances? because that cannot be done, as our civil hospitals are carried on by voluntary contributors and philanthropic workers. That is not meant. But it surely might be assumed that the medical man ought *to know* what is necessary for the wants of a hospital as regards food, *matériel*, accommodation, staff of nurses, servants, and porters,

blanketing, bedding, and so on. Also it is assumed by the public that doctors have special knowledge of all kinds of food and its preparation; that they have a special knowledge of wines, beer, spirits, &c. How are doctors to gain such knowledge? Neither by hearing nor seeing whilst students, and when they commence practice they are behind other men of their own age in regard to such knowledge; and the first breath of dishonest speech is inculcated when the practitioner makes a statement, which may be to the best of his knowledge correct, but which he knows is said in ignorance. More than one young practitioner has recommended "Sparkling Moselle," for instance, and has told me afterwards he had never tasted or seen such. It is this and such like ignorance of ordinary household sanitation, ignorance of the principles of nursing, uninstructed as to cooking, dietary, drainage, sewage, the care of the ward or sick room, &c. &c., that first make the doctor feel in his inner conscience that he is acting the part of a sham, which is apt by-and-by to affect his character for no good.

How can a profession assert itself with such a training? How can its members come boldly forward and take their proper place? But how can they be expected to, placed as they are in a false position at the threshold of practice? The young practitioner knows no more of hygiene than his ancestors, who could tell as well as he, by the nose, that the drains were wrong and the room stuffy; that the milk was bad because it did not agree with the children, and that there was a draught in the room. That is about the state of the hygienic knowledge of the modern doctor to-day when he leaves his medical school; and the enunciation that the health of hospitals is not in the hands of the doctors is terribly true.

In what civil hospital is there a published *personnel*? Do you, a doctor, know how many cooks are necessary to carry on the work in any London Hospital, the Edinburgh Infirmary, or any hospital in Dublin? Do you know how many blankets, spoons, knives and forks, &c. &c., are necessary for a hundred beds? No! And I don't want to know; but I could easily find out if I did. Don't want to know! Do you

appreciate the fact, you, medical teacher, that a number of the men you are training are to be placed *in charge* of provincial or colonial hospitals; may be called upon to *furnish* hospitals; may be sent to the seat of war, with what result, that an evitable breakdown must ensue; may take appointments on board ship where they have to act as sanitary officers, it may be for 600 people, under the worst hygienic conditions possible?

Hospital Scandals are not unknown amongst us *when doctors* are in charge of hospitals. Why? Because the doctor did not know what amount of beef, tea, sugar, vegetables, &c. &c., were required for the number of patients he had, and the tradesmen swindled him. *How are you to find out* the requirements of a civil hospital? You cannot; *there is no civil hospital publishes its personnel.* Where do you go for your knowledge? To army records, and there you will find the requirements for a military field, or base hospital, but not for a civil. Hence the young medical man, called on for such a duty, muddles on in the best way he can, and finds his mistakes set before him in the newspapers, and gives evidence under the heading of Hospital Scandals, which catch the public eye, but fail to bring home to the man's teachers that they are at fault in not fitting him for such work. An attempt to publish the personnel of a few hospitals was smothered: an attempt to put even the amount of cubic space, &c., per head outside a hospital ward, so that the young medical man might *see*—for he is never told—that there is such a thing as a relation of health to space, was declared by one to be "rather a shoddy thing to do," and by another it was negatived, as the beds MIGHT PROVE TO BE TOO CLOSE. Alas! science! truth! what better are we for all your revelations: we try to smother you when it suits ourselves.

How do we civil practitioners stand as regards civil practitioners in other countries? Compulsory military service affects the medical men of any country, as well as all other classes. What is the consequence? The medical men abroad are thereby trained in hospital administration, and

know what it means, because their Governments compel them to join the army—compel them to keep touch with the army, and thereby the training is gained and sustained. After a short service in the army the doctor goes back to civil practice with a special knowledge of administration and hygiene; he has a definite rank and position; he is a much more valuable man than he was before, as he can speak with more weight at his hospital councils upon hospital matters, he is taught system and precision in his daily work and in recording disease. Compulsory service may not be an unmixed blessing, but it developed an Esmarch and a Langenbeck. Who would have heard of Esmarch had he simply continued in the administration of pills and bottles of medicine to the inhabitants of a fourth-rate German town? No! His Government laid hold of him, and brought him into the arena, where he has made his name one of the first in Europe. Who directs the hospital at Kiel? Surgeon-General Esmarch. Who looks after the health of the hospital? Surgeon-General Esmarch. Why? Because he is trained in the work; because the public know he is to be trusted; and he, a doctor, brooks no equal in the work which it is surely the duty of every medical man to know and do. In every country in Europe medical men are so trained except in our own; hence it is I venture to notice the difference and to point out the results. In the *Illustrated London News* the other day, of the hospitals in Servia sent by various countries, that sent by this country, the "National Aid (Red Cross) Society," was declared to be the worst. Who administered it? Not a doctor; but the doctors have to bear the shame. Doctors are sent by all other countries in charge of foreign expeditions of their Red Cross Societies except our own. *Commissioners* are sent by our "National Aid (Red Cross) Society" to prospect and see if the doctors are needed. All honour to the laymen so sent; they are sent to brave the dangers and to do the work because our doctors are *not capable* of doing it. Look the fact straight in the face and lay it up in your mind: *because our doctors are not capable.* Why? Because untrained in such work. How could

a young man just qualified know what to order for the requirements of a hospital? Hence, not knowing and *having no means* of finding out, a commissioner is sent to do the work—not *under* the doctor's direction; but when the commissioner has prospected and bought what he calls "stores," he then sends for so many doctors, taking it upon himself to state how many doctors are required to treat so many patients. All honour to those philanthropists who go to the uttermost ends of the earth to bring comfort to the wounded and suffering, and all honour to the Society who does so much in the same direction. But the Society was necessary at first because the doctors were *insufficient;* and the Society exists to-day, a *slur* upon the medical men of the country, civil and military; a credit, however, to the people, and an honourable work to those laymen who administer its affairs.

On return from their work in Servia, the foreign sovereigns for the most part received the doctors who were in charge; in our country the commissioner was received by royalty, but the doctors' names are consigned to oblivion. The usual twaddle is told me, over this subject, that doctors are *much too valuable* to send on such missions as prospecting. Let me say, once for all, to those who kindly smooth our faults over, that it is ignorance and incapability from *want of training* that renders us, the civil doctors of this country, unfit to undertake responsibility either at home or abroad in hospital administration.

To what are we to look for a cure for this state of things, or is the present state satisfactory? Are we doing what the public, who subscribes money to keep our hospitals a-going, believes us to be doing? Are we responsible for the health of our hospitals? Are we training our young men to know aught that concerns the prevention of disease in the sphere of life to which most of them drift—namely, general practice? What will be the consequence of this neglect? The medical profession will lose its touch with hygiene. A special body of trained men, not doctors, will take up the work. The portal to this knowledge has hitherto been the medical profession; but just as the teaching of pure science is being gradually withdrawn

from our medical schools, so will its sister, hygiene, be extracted from its birthplace, and the two great subjects, which are carrying all before them, will be wrenched from the doctors' hands, and the womb of time will by-and-by develop medical men untrained in anything beyond the limited, and thereby equivocal, art of the cure of disease.

How are these faults and short-comings to be remedied? By having our young practitioners properly trained before they launch into practice. It takes 6 or 7 years to become a journeyman tailor, grocer or mason; but a doctor can be turned out in 45 months. Dentistry, a branch of the medical art, requires 5 years', but its parent 45 months' training only.

Medicine in its present advanced stage of development can only be taught imperfectly. As an art it is assigned a shorter time to acquire than other arts. Here is an evil which strikes at the root of our position as a profession; we cannot be but imperfectly educated, and consequently must grovel on the verge of dishonesty as to knowledge throughout the first few years, and it may be all the years, of our professional lives. Much could be done, however, by a course of practical hygiene being insisted upon at the examining boards; or if they will not, then let the medical schools, at any rate the universities, take the all-important matter up. Whilst at hospital, a visit of inspection with the architect of the building, and to be told about space, ventilation, walls, flooring, water-closets, lifts, sewage arrangements, flushing and water-supply would—even thus much would—make the student a wiser man. Instead of spending his days in the laboratory testing for phosphorus, ferrocyanide of potassium, &c., a few simple tests for air, water and milk would be an inestimable boon. Were the student taken to the kitchen and shown what constitutes good and bad meat, what is the difference between broiling, baking and stewing, &c., he would commence practice with a better chance of remaining an honest man in his own estimation. Over and above these, which are surely simple enough and likely to be most pleasant work for the student, he ought to be told the principles of the art of nursing, allowed to change

sheets, wash a patient, make a bed, feed a patient, make beef-tea, &c. &c. Many smile at this proposition and say, "It is surely enough to *see* it done by a good nurse." Does a young artillery officer learn gunnery by looking on? No; by taking part in the work, and by being put through a two-years' course of the manual exercise thereof. It is their imperfections in training, which doctors have to gloss over in after-life, that gives doctors the *doubtful* position they hold, that makes them assume in after-life arrogance or surveillance in their dealings with matters not immediately concerned with the cure of disease. Lastly, it is surely time that medical students were taught how to lift and carry the sick, injured, or wounded, either from one room to another, up or down stairs, from the street to a house or hospital, or from the coalpit to a place of safety. This is not taught to medical men, and consequently they do not know it. Whilst all Europe is being *taught* how to apply Esmarch's triangular bandages for accidents, how to improvise a tourniquet, or to provide a temporary splint, the medical students in this country are not taught, do not know, and, of all classes of the community, they are of the one to which such teaching has never been given. Such knowledge does not come intuitively, and is not to be learned at the bedside. Until some such means of instructing our students are taken, we cannot, as a profession, hope to hold up our heads, we can only appear as imperfect workmen; we cannot respect ourselves, and hence cannot hope to receive it from others.

In hospital committees we are, and must be, unless we set to work to better our knowledge, content to play a meagre part. In many a hospital report the names of the medical staff are placed after those of the secretary, treasurer or clerk. Let not medical men shut their eyes to the significance of that. When medical relief is sent from this country, a commissioner, or layman, is sent, and the work is done in his name. The Ambulance Societies in this country were mostly started by laymen, and the medical profession have had to come in afterwards as their servants. Such will be the position of the doctor until we are taught to respect ourselves as a profession, by being properly taught in work which it is the duty of the doctor to know and do; and which gives room for the doctor's social enemies to keep him under by performing the humane work which by neglect he has let slip from his hands, and allowed others to do that which is the privilege and right of the most noble profession.

J. C.

14 Suffolk Street,
Pall Mall, S.W.

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(11)

ON THE

ORGANIZATION AND DUTIES

OF THE

BEARER COMPANY

OF

THE MEDICAL CORPS

IN

WAR

BY

SURGEON MAJOR G. J. H. EVATT, M.D.
ARMY MEDICAL STAFF

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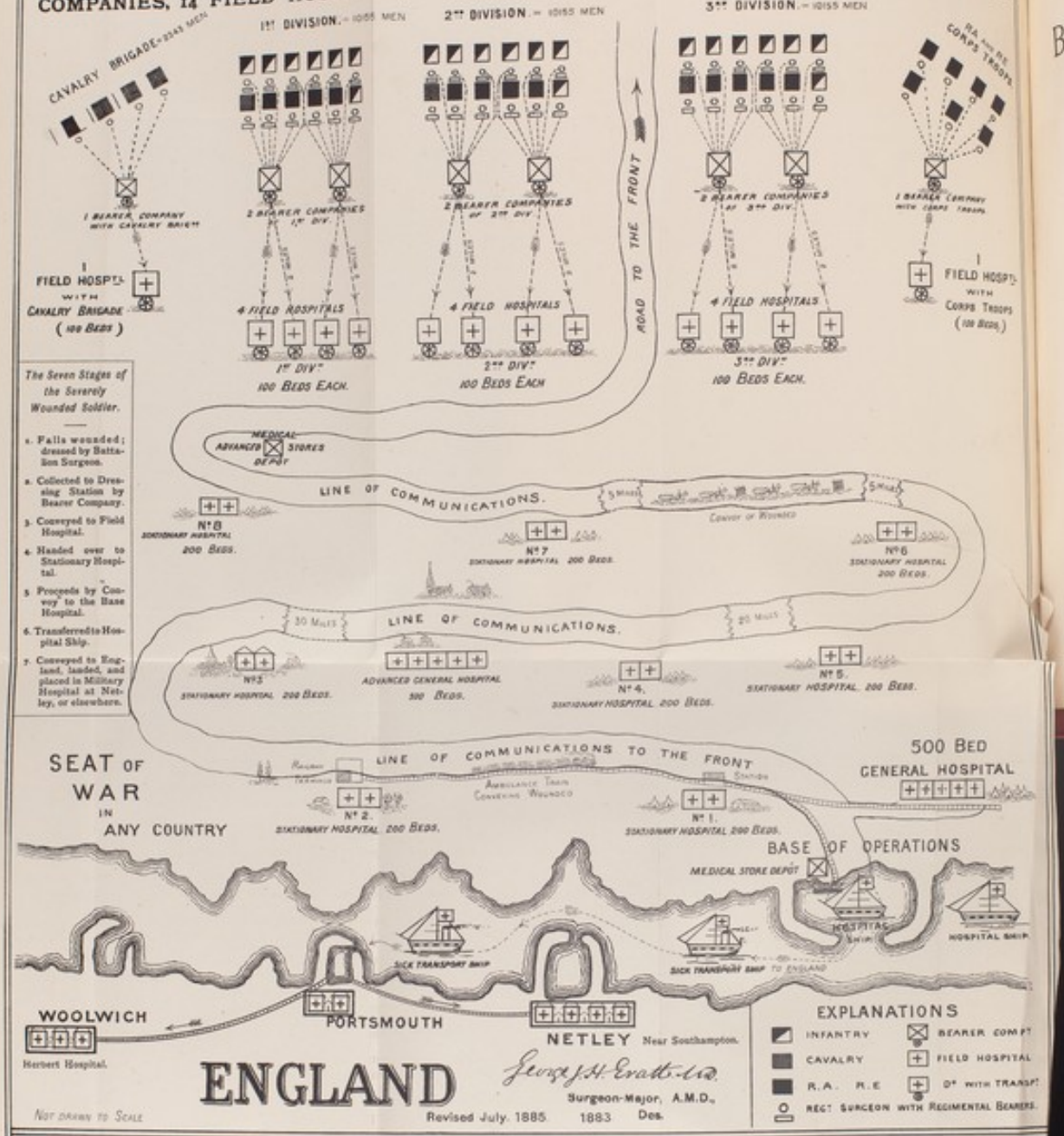
CHANDOS STREET, W.C.
1886

For General Account of System, Vide "Army Medical Department Regulations, 1885," 2/6 at any Military booksellers.

Plan

For Ambulance Drill and Instructions of Medical Volunteers, see "Manual for Medical Staff Corps, 1885," 2/- at any Military booksellers.

OF THE MEDICAL ARRANGEMENTS OF AN ENGLISH ARMY CORPS. STRENGTH—36,000 MEN, 12,900 HORSES, 90 GUNS, 280 CARTS, AND 1153 WAGGONS, WITH 8 BEARER COMPANIES, 14 FIELD HOSPITALS, 8 STATIONARY HOSPITALS, and 2 GENERAL HOSPITALS.



The Seven Stages of the Severely Wounded Soldier.

1. Falls wounded; dressed by Battalion Surgeon.
2. Collected to Dressing Station by Bearer Company.
3. Conveyed to Field Hospital.
4. Handed over to Stationary Hospital.
5. Proceeds by Convoy to the Base Hospital.
6. Transferred to Hospital Ship.
7. Conveyed to England, landed, and placed in Military Hospital at Netley, or elsewhere.

George J. H. Evatt. M.D.
Surgeon-Major, A.M.D.
Revised July. 1885 1883 Des.

Total Medical Staff Corps with Army Corps.
261 Medical Officers.
34 Quarter-Masters.
2041 Men, counting Batmen but excluding Regimental Bearers.

1 Surgeon-General P.M.O. Army Corps.
1 Surgeon-General P.M.O. Communications.
1 Deputy Surgeon-General, as Sanitary Officer.
1 Deputy-Surgeon General P.M.O. each Division.
1 D.S.G. as P.M.O. Base; 1 D.S.G. each Gen. Hosp.

DESCRIPTION OF DIAGRAM.

This diagram shows every Regiment, Battalion, and Battery in an Army Corps, as also the number of units in each Division (seven Battalions of Infantry, one Regiment of Cavalry, three Batteries of Artillery, one Company Sappers, two Bearer Companies, and Four Field Hospitals.

In the rear of each unit is the Battalion, Battery, or Regimental Surgeon with the Regimental Bearers, two to four men per Company.

The dotted lines show the path of the wounded to the two Bearer Companies of the Medical Staff Corps, with each Division, which must not be confounded with the *Regimental* Bearers working under the Battalion Surgeons (Bearer Company, four officers, fifty-seven men, M.S.C.)

Behind the two Bearer Companies are the four Field Hospitals of each Division, each Hospital equipped for 100 Beds, and manned by the Medical Staff Corps (five officers and thirty-four men each). These Hospitals are supplied with Transport, and march with the Army.

In their rear, on the road leading to the front, is the Advanced Medical Store Depôt of the Army Corps, supplying medicines to the front.

The winding road is the Line of Communications, which may be from 100 to 200 miles long, and which extends from the Base of operations to the Army in front. Along it are placed at the various *Etappen* posts the eight Stationary Hospitals of the Line of Communications, each accommodating 200 wounded, and each manned by ten officers and sixty-five men of the M.S.C. The sick and wounded returning from the front are conveyed by "Sick Convoy" either in waggons, ambulance trains, or by steamer from stage to stage until the Base is reached.

The winding road is so drawn to save paper. One of the General Hospitals (500 beds) is placed at the Base of operations, and is called the Base Hospital; the second General Hospital may be placed where most needed. (General Hospital 21 officers and 123 men, M.S.C.)

The Ships are the Hospital Ships at the Base of operations, and the Sick Transport Ships conveying the wounded and sick from the Base to Netley, Portsmouth and Woolwich. (Hospital Ship 200 beds, 8 officers, 42 men, M.S.C.)

The Volunteer Forces need one Bearer Company, and one Field Hospital for each Regimental District. These units to be made up of Volunteer Medical Staff Corps Officers and Men, in addition to all existing regimental aid.

Woolwich, August, 1885.

George J. H. Evatt. M.D. SURGEON-MAJOR,
Army Medical Staff.

Per dozen, 1/-; per fifty, 2/6; per 100, 3/6; post free from W. H. LEAD, Leicester.

THESE PAGES ARE INSCRIBED

TO

Surgeon Major William Johnston, M. D.

ARMY MEDICAL STAFF

STAFF OFFICER MEDICAL STAFF CORPS

WAR OFFICE

LONDON

PREFACE.

THE following pages must be received as a very elementary attempt at formulating my opinions and experiences on ambulance work in war. It seems to me that we, in the Medical Corps of the Army, are heavily handicapped by the want of definite records of past medical experiences in the field. Feeling this want intensely, I determined that, so far as lay in my power, no medical officer should fall into my mistakes if, by recording them, I could prevent it. Hence the present and former pamphlets.

But it is necessary to state here that so long as the Medical Service of the British Army remains as it does to-day, the only corps in Europe without a definite "Journal" of its own, so long will we be without those recorded experiences which in the end build up success in war.

Military history up to the present has ignored the medical work in campaigns.

It is for us, the technical Military Medical Corps, to take care that it shall do so no longer, and to my mind a first step

towards that end is a special Corps Journal for the Medical Service.

It is by such co-operation we can help to build up a complete war and peace efficiency.

GEORGE J. H. EVATT, M.D., Surgeon Major,
Army Medical Staff.

Royal Military Academy,
Woolwich,
February 1886.

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ON THE

ORGANIZATION AND DUTIES OF THE BEARER COMPANY

OF THE MEDICAL CORPS IN WAR.

INTRODUCTION.

I PROPOSE in the following paragraphs to place on record some views and opinions I have formed on the organization and working of the ambulance arrangements of an English army in war time, based upon my experiences on field service, during the time I commanded the Second Bearer Company of the Medical Staff Corps employed in the Suakim Expedition of 1885, and also upon any knowledge I may have gained on sick transport and convoy work during the first and second Afghan Campaigns of 1878–9–80.

It may be advisable to state here that the Bearer Company of the Medical Corps, is a practically new organization in our army. The first Regular Medical Staff Corps Company, so organized, which ever went to a campaign was that sent out to the Cape in 1877 under command of Surgeon-Major W. Johnston, A.M.S., although Surgeon-Major Hector, A.M.S., had previously done good service with an extemporized company of Europeans and natives in South Africa. Two companies were also sent to the Egyptian Campaign of 1882,

one being under the command of Surgeon-Major Ray, A.M.S., and the other of Surgeon-Major O'Dwyer, A.M.S.

Camel Bearer Companies were organized for the Nile Column of the Soudan Campaign of 1884–5, and doubtless their history will one day be written by the officers who organized and commanded them. For the Suakim Expedition of 1885, two companies were organized—viz., No. 1, under Surgeon-Major W. J. Wilson, M.D., A.M.S., and No. 2, to which I had the honour of being appointed as commander.

The function of the Bearer Company is to gather in from the battle-field and from the regimental bearers the wounded of an army, to afford to them careful dressing and nourishment at the dressing-stations, and finally to hand over the wounded to the field hospitals, beyond which the Bearer Company has no responsibility.

In addition to discussing the ordinary field duties, I have devoted some sections to elucidate the other important functions of the Bearer Company—viz., first, when it acts with cavalry in the field; second, when it acts as a Sick Transport Corps along the lines of communications, in organizing the convoys of sick and wounded to the base; third, when it mans the ambulance trains; and, lastly, when the Bearer Company acts as a Medical Staff Corps Depot at the base of operations, while entrusted also with the heavy duty of conveying the crowds of sick and wounded from the railway to the Base Hospital, and from the Base Hospital to the Hospital Ships.

These Bearer Company functions are, to my mind, of the very highest importance to the successful working of the medical portion of the campaign, and assuredly need much attention. There is no doubt whatever that the existing system of sick transport on the communications of an English army corps is defectively organized, and the need of a Bearer

Company at the Base is universally admitted by all who have sufficient intelligence to grasp the question.

It must be remembered that although sick transport and the removal of sick and wounded have only lately been accurately dealt with in the English army, in India sick carriage for the soldiers, at the rate of 10 per cent. on the strength of the army, has always been provided; and although this sick transport has often been badly organized, defective in discipline and frequently of poor physique, yet it is, in the main, owing to its presence that any success has attended Indian medical arrangements in the field. The Doolie Bearers, to whom of course I refer, although untrained and undisciplined, have existed from our earliest campaigns in India, and must to-day be looked upon as a body capable of very complete development, if only trouble be taken with their training in peace to provide for the needs of war.

It seems to me, then, that as this subject of sick transport is more or less a new work in our army, it is the duty of every officer of the medical corps of the army, in this, its constructive period, to add whatever little he can to the general fund of information on this as on all medical organization questions. It is only by such contributions that progress may one day come; and the pity is that so little record exists of the causes of breakdowns or successes in bygone campaigns when measured from a medical standpoint.

I propose then to deal with this highly interesting subject of Bearer Company organization under the following heads—viz.:

Before going one step further into this subject it seems to me necessary to protest against the title, "Bearer Company," given to this important ambulance unit. Such a title seems to me to ignore much of the work of the Company as a scientific working body, able, if needs be, at any time, to afford technical scientific aid as a temporary hospital on the field for the wounded.

The title *Bearer* Company seems to me to ignore this important duty too much.

I would therefore propose that the title of these units be changed to the *Ambulance* Companies of the Medical Corps, and that the regimental bearers should be called the regimental ambulance detachment.

This title, it seems to me, would bring the English medical system into more comple unison with the Continental army systems.

The title Bearer Company is far too narrow to thoroughly express the work done by the unit.

CHAPTER I.

MOBILIZATION AND INTERNAL ORGANIZATION OF THE COMPANY.

THE existing system of mobilizing a Bearer Company is briefly as follows: On the outbreak of a war, orders are sent from the Medical Department of the War Office, to the various military districts all over the three kingdoms, to send in so many Non-Coms. and men of the Medical Staff Corps to the Medical Depot at Aldershot.

No local cadre exists anywhere in the three kingdoms; everything is centralized at the Aldershot depot.

Orders are then sent to the medical officer commanding the depot, through the Surgeon-General at Aldershot, that so many N.Coms. and men will arrive at the depot within the next few days, and that from these details, arriving from fifty various stations, the *personnel* of so many bearer companies, field hospitals, stationary hospitals, base hospitals, and hospital ships companies are to be organized.

Orders are also sent to the principal medical officers of districts, that so many medical officers, personally named, are to report themselves at Aldershot forthwith.

The Director-General of the Medical Department details these officers to the various medical units thus: No. 2 Bearer Company—Surgeon-Major Evatt, Surgeon Keays, Surgeon Hackett, Quartermaster ——; and so on. Lists are forwarded to the Surgeon-General at Aldershot, and on

the arrival of the officers at that station they find out their particular unit to which they are posted.

At the depot the officer commanding there either chooses the warrant officer who is to be sergeant-major of each unit, or this official is nominated from the War Office. The various sergeants are then told off to the cadre of the unit, and the private men are allotted. Whenever the depot parades the future units fall in as units as complete as possible under their sergeant-major.

The medical officer, on arriving at Aldershot, personally reports himself to the Surgeon-General there. He is then taken on the strength of the division and attached to the Medical Depot.

He at once reports himself to the officer commanding the depot, and, in conjunction with the officers allotted to the company—viz., the two surgeons above referred to, and the quartermaster, together with the sergeant-major—he proceeds to get a nominal roll of the men of his unit; and I would advise him strongly to get with this roll a statement of the men's trades before enlistment. It is of great help afterwards, as in the field frequent needs arise for tradesmen if they can be found.

Medical Inspection.—I strongly advise any officer appointed to command any medical unit to hold a strict medical inspection of his men before finally taking them over. It is the strong point of the medically trained officer of the army that, besides commanding his men, he can medically inspect them. I recommend him to examine carefully every officer, every warrant officer, non-commissioned officer and man. The medical units are so weak in numbers that the loss of even a single man causes great trouble, particularly as, so far as I can see, no spare men are allowed in the cadres to meet accidents. This is a condition of affairs needing to be corrected.

The physical fitness of officers going on a campaign needs to be very carefully gone into in our army, and personal inspection is the only true test.

It must be remembered that in war time the war fever generally subsides after some time in the field, and the excitement then begins to wear off, the hard work begins to tell, the rough food becomes unpalatable, and weak human nature begins to discover ailments which one thinks would be benefited by a rest at the base hospital or in a hospital ship. A strict medical inspection on mobilization would, at any rate, diminish the chances of unfit men slipping out to a campaign. The medical history sheet affords great assistance in dealing with the men, and we will probably have some such document to aid us one day in dealing with officers.

The examination should be strict as to varicose veins, and various contagious diseases which render men unfit for service. The physique of the *personnel* of the Bearer Company should be above the average of the hospital units. Their work is harassing, their exposure to the sun and the weather constant, the labour of lifting and carrying wounded excessive; in fact, I know no labour harder than carrying a sick man on a stretcher, particularly with our present stretcher slings. The surgeons attached to the company should also personally inspect the men with the commanding officer. All are interested in the efficiency of the unit. It may be needful one day to fix the height of the men of the Bearer Company, avoiding alike very tall men, or men of low stature; strong, medium-sized men would be the best.

Allotment of Officers.—Despite the regulation that a Bearer Company, as now organized, is never to be broken into halves, the very first time any need arises it will be so divided. This is quite certain, a thousand regulations notwithstanding.

The very first lesson war teaches us is the need of ability to subdivide units and yet to be efficient. The great model

for us all must be for years the field battery of artillery, with its clear subdivision into three two-gun divisions.

But whether or not the Bearer Company subdivides in the field, it is advisable to divide it into half companies for administration.

These half companies are allotted to the two surgeons, the quartermaster remaining with the commanding officer, unattached to either half.

This subdivision produces a rivalry in the company, gives to the half company officer definite responsibility, checks the powers of non-commissioned officers to ride rough-shod over men, and frees the officer commanding from many petty questions which can be dealt with by the junior officers. But I repeat that, apart from all these administrative advantages, it is certain that in war, at a moment's notice, subdivision may be necessary. Let us then forestall the need and be ready for it.

In addition to the assignment of half companies to the junior officers, one of them should be detailed as in medical charge of the company. It is highly advisable not to allow the officer on duty for the day to see the sick merely by roster. It is unfair to the sick, as the continuous history of the case is lost; and it is unfair to the company, as it facilitates men shamming sick, if they ever desire to do it. The fixation of responsibility is therefore of great advantage.

The quartermaster is not attached to either half company. He is the officer of the commanding officer, and remains with him. I attach the greatest importance to this officer, or to some other officer, *not warrant officer*, filling his place. As it is, the staff of the Bearer Company is painfully small; but if the quartermaster is not allowed, his want is much felt. I am of course perfectly willing to take an extra surgeon to act as quartermaster, and I should not object to a volunteer surgeon, if he so desired, to come, but what is needed is

some official of officer's rank, able to speak with a footing of equality to other officers, with free *entrée* into all offices, and able to sign fully for stores, and, if needs be, to issue orders to the men. If the quartermasters of the medical staff are too few in number, I think, by a proper system of war reserves, we should be able to call out young volunteer doctors who will do both duties—viz., quartermaster when so needed, and surgeon when not so employed. We want, however, the fourth officer, be he quartermaster or surgeon.

The senior surgeon of the company should be detailed as acting adjutant of the company as well as in command of his own half company. We want to kill out all centralization, and one way of achieving it is, in even the smallest unit, compelling the second senior to act as adjutant. He is thus intimately associated with the commanding officer, he signs all orders, is assured of superior position with reference to all other officials in the company, and if sickness or wounds strike down the commander, he at once steps into his place, and hands over the adjutant's work to the next senior. He can thus open letters, sign correspondence, and become in every way the substitute of the chief officer of the company.

No one will regret this step if taken, and in the medical units it seems to me to be a highly important matter. Let us by every means kill out *centralization*. The officers then delegate to one of themselves the position of mess caterer; for even in war time it is possible to have a comfortable mess for each company.

It is a matter neglected too often in our units, yet it is of great importance. It ensures the meeting together of the officers; it ensures, by the general conversation, a method of ventilating questions which would otherwise have no regular outlet. I have seen excellent messes in war time, with everything in a civilized condition, and no doubt whatever they aid the physical fitness of the officers for hard work.

A small subscription from each officer secures a few needful articles for the mess. It is highly advisable for the commander to see that every officer has his field canteen complete. Medical officers are very remiss in this particular, and it is completely wrong to trust to the company's equipment cooking utensils for food. The only way to guard against this is to regularly inspect the canteens of each officer before the departure.

When a field dress is laid down for war it will be just as essential to have a kit inspection for officers as for men.

Officers' Servants.—We cannot leave the subject of the officers without saying a few words about their servants. It was pitiful in our old wars to consider the state of suffering the medical officers endured from absence of soldier servants. While the country was paying high prices for its medical officers, rigid and obstructive internal army rules prevented their having any servant to cook their food, and they fell sick. To-day we are in better condition. At any rate, we have the men given us from our own corps, and probably one hundred trained orderlies are utilized in every campaign as officers' servants, grooms, &c. My verdict on them as servants and grooms is not favourable. They are simply detailed when war begins as servants, and have no preliminary training whatever. To expect such men to be efficient would be an error. Efficiency comes from continual practice, and as they have no practice as servants or grooms before the war breaks out, they are not up to the mark when needed. The very peculiar conditions under which we can utilize men of the medical corps in peace, and the financial loss attending it, no doubt is at the bottom of much of this inefficiency. But the remedy seems to me to be that while retaining our right to take servants and grooms from the corps, we should in peace be permitted to take men from the army reserve, have them attached as

servants to the medical corps, and, in case of continued neglect, to have the power of sending them back to the reserve.

This would keep the specially trained orderlies to their special work, and would free some hundred men or more from private servants' duties during a campaign.

The following subordinate staff should be detailed by the officer commanding the company. All appointments should be acting and liable to revision, for with our centralized system of mobilization, and the complete ignorance we are in as to the *calibre* of our men, permanent appointments may be highly undesirable.

The sergeant-major.
The quartermaster-sergeant.
The staff-sergeants of half companies.
The orderly-room clerk.
The police corporal.
The compounder.
The cooks.
The water-cart man.
The messenger.
The batmen of the sergeant-major and quartermaster-sergeant.
Shoemaker (?) Tailor (?) Carpenter (?)

The Sergeant-major of the Bearer Company.—This important warrant officer is generally appointed to the company from the War Office.

His efficiency is a matter of great moment. The very first question is, Can he ride? If he cannot do this, he is handicapped most heavily. It is of the highest importance that all warrant officers of the medical corps should be examined in riding before promotion. There are ample opportunities of learning to ride in most of our garrisons, and a warrant officer who cannot ride is simply inefficient.

I object to the sergeant-major acting as quartermaster. In the first place, the quartermaster of the Bearer Company

has many important duties to do in dealing with other officers, and it is very difficult for a warrant officer to speak out openly and boldly to an officer. The quartermaster is a commissioned officer, and is perfectly aware of his importance, and quite able to hold his own in any official business.

However efficient warrant officers may be as store issuers, it is to be remembered that many other duties fall to the quartermaster's lot, and I think the commissioned quartermaster, be he surgeon or not, is a highly important aid in the company.

Further, the discipline suffers very much if the senior specially chosen supervisor of discipline is removed as a storeholder. The discipline of a Bearer Company, gathered in from hither and thither, needs careful supervision. That supervisor is the sergeant-major, who is really a sub-adjutant, and to remove him is deliberately to weaken discipline in the company. And further, if we allow a warrant officer, who should be the mouthpiece of the men in any complaint about food, cooking, lodgment and the like, to be himself the responsible executive officer in these matters, it is certain to paralyze all reporting by the men. They will be afraid to speak, or, if they do speak, there will be the chance of their being dropped upon afterwards.

Further, the sergeant-major, as senior, is a deliberate check on the quartermaster-sergeant, as far as any loss or making away with the stores is concerned, and I should object to this check being removed.

The sergeant-major should be active and not too old or obese. Such men are of no use in the field, and I have seen them at once give up and drift to the base in war time.

The sergeant-major makes the company. If he be slow, obstructive, or ignorant, the work is much increased for every one. He attends all parades, checks every sub-department

of the company and continually reports to the officer commanding every occurrence in the company. He is mounted on the march, and has a batman for the care of his horse. It is essential that he should be able to ride.

The Quartermaster-Sergeant should always be junior to the sergeant-major or chief discipline non-commissioned officer. If it is not so, complaints about food cannot reach the commanding officer.

It is essential that the quartermaster-sergeant be well mounted in the field. In the Suakim field force a horse was for the first time allowed for the quartermaster-sergeant. Without it he cannot do his work. It is highly important that this very heavily worked non-commissioned officer should be given the means of doing his duty thoroughly. The quartermaster-sergeant serves under the quartermaster, and if the company breaks up he may act as quartermaster to the detached half. The quartermaster-sergeant chooses a steady private, who draws all stores with him, and this man is not changed by roster.

Staff-Sergeant of Half Companies.—It is advisable to give to the two surgeons who command the half companies, a staff-sergeant as assistant. These N.Coms. muster the half companies and act in every way as sergeant-major of their half company. When detached, they have complete responsibility as sergeant-majors of half companies.

The Orderly-room Clerk is then told off. It is to be remembered that a Bearer Company sends in exactly the same number of returns as a battalion of infantry in war time. The clerk is fully occupied. He keeps the letter-book, the order-book, the company records, and all other papers of the company. He receives the boxes issued for the custody of forms and stationery. He chooses a private man who can write, and this man goes for orders daily to the brigade-major, and to the P.M.O. When the orders are duly entered

and signed by the acting adjutant, they are issued by the sergeant-major to all concerned.

The assistant goes with the detached half company as clerk, if the unit is broken up. In action the orderly-room clerk assists at the dressing-station, and takes the name and particulars of all wounded arriving.

The Police Corporal.—It is advisable to tell off a steady corporal, or to create an acting N.Com. as police corporal. He acts as camp guard during the day, aids the quartermaster in conservancy supervision, stops all liquor coming into camp, sees that men do not leave camp without leave, and on the line of march assists the quartermaster-sergeant with the baggage.

The Compounder.—This N.Com. takes over the medicine panniers, the haversacks and the water-bottles, and is responsible for their custody. He acts as hospital-sergeant when any men of the company become sick, looks after them if detained sick in the company's camp. He chooses an intelligent private as his aid and assistant, and in battle he is present at the dressing-station, and assists at its organization. He keeps the prescription-book, and is responsible that the dressings and drugs are kept up to regulation.

The Cooks.—Two men are allowed to cook for the company. This is very plain sailing, and there need be no hitch here. Thoroughly good cooks should be employed, as the physique of the men depends so much on their feeding. But the dressing-station cooking for the wounded is of great importance. The company cooks will be behind with the baggage and cannot assist here, so that a thoroughly good active man is needed to have soups and hot drinks ready for the wounded. Probably two men are needed for this duty, as if even fifty men come in wounded they need much cooking done for them. Frequent practice is needed for this work, and rapid preparation of "first aid soup" is very

much needed. Even at Aldershot, and in all peace drills, the cooking vessels should be unpacked, fires lighted and water boiled as in the field. Practice alone makes perfection.

The Water-cart Man.—It may be necessary to detail a man to look after the water-cart, and the drawing and issuing of water.

The Messenger.—It is highly desirable that the bugler should be mounted. The young lads get wearied on foot, and in searching for wounded and gathering them in from outlying parts of a field the bugler is very important. And he should also act as messenger or mounted orderly in the field.

The batmen of the sergeant-major and quartermaster-sergeant are easily told off. The sergeant-major's batman should accompany him, and not remain with the baggage. It is advisable to detail a shoemaker, tailor and carpenter. They do their ordinary duty on the field, and in camp act as tradesmen. Such men can be found in most companies.

Frequent Parades with the Men.—The commanding officer should, while at the depot, see his future company constantly; in fact, he should take over the company command at once on joining, and endeavour in every way to get a knowledge of the men he is to command. Whatever officer of the future company joins first at Aldershot should at once be posted to the company, and take over every duty in connection with it that he can. It is only thus we can counteract the dangerous influences of our centralized mobilization. It is impossible to speak too clearly as to the overwhelming dangers of this centralized mobilization scheme. Every tie, every link, that binds men together is wrenched by it. Neither officers nor men know aught of each other, and in any great war needing rapid mobilization of a strong medical corps, a deadlock would certainly result. The Aldershot

staff would be overwhelmed and the machinery would break down, and in the end those heterogeneous companies and hospitals miss the binding spirit that true localization gives. Yet all this time the head-quarters of districts and the district P.M.O.'s will be entirely idle, and will take no responsibility beyond sending away the men to the centralized depot.

But even with this central system, a much better system might be instituted—viz., by keeping together at Aldershot the men of each district for the units. Thus, all the men of the Woolwich district, although sent to Aldershot, could be kept together there and posted to the No. 1 Bearer Company, or all the Dublin district men posted to the base hospital detachment. It is the delight of the bad soldier to be thus lost to sight in a unit gathered together from all points of the compass, and the bad N.Com. and the bad private man rejoice that they will not be found out for weeks, or until some breakdown occurs.

The remedy is simple. It is localized and decentralized mobilization at the district head-quarters of each division. Thus we free Aldershot and throw on the really responsible men—viz., the district P.M.O.'s—the onus of mobilization. It is for him to have his lists ever ready for emergency, and to keep ready in his office the whole detail of war preparedness. Anything else is certain to fail sooner or later. But where the centralized system utterly breaks down is in the inability to fix the responsibility for the ignorance or indiscipline of the men on any responsible person. If the scratch company is insubordinate and neglectful, whom can we blame? Nobody. It is really nobody's child, either for praise or blame, and this centralization system induces the officers of the medical service to throw the whole blame on the War Office and its medical administrators if the least inefficiency exists. This is the weak point of all centralizing

systems. The centre cannot act everywhere, and nobody else has the initiative.

I would fain see the mobilization scheme of the medical service a completely decentralized one, leaving to Aldershot only the mobilization of its own local active and reserve men and throwing on the districts all other work.

Taking over Documents.—On the day before the departure of the company from Aldershot the officer commanding details one of his officers to take over the documents of the men from the depot. Boxes for the custody of the documents are issued with the company equipment. The orderly-room clerk should keep the keys of all boxes for ordinary stationery and routine forms.

The Kits of the Men.—The men receive their sea-kit and field outfit at Aldershot, and return into store there any surplus articles of equipment.

All documents connected with these matters are completed by the depot quartermaster. It should be seen that the kit-bags are distinctly lettered and marked.

The Pay of the men.—This should be seen to, and the men paraded the day before departure, to ensure that no complaint will be left over until the moment of marching off.

Such complaints are likely to occur, and men may keep their complaints until the last moment, to avoid going on the service for which they are detailed.

The great aim seems to me to be to hand over to the new officers as much responsibility as possible about the men before they leave the depot.

It is, I think, highly advisable to make all the men fall in on parade even at the depot, by half companies at first, under the half company officer, closing up to a full company before the officer detailed for the command has his parade.

It seems to me to be a good thing, once and for all, to size the company at once as a Bearer Company, and make

them fall in thus at every parade. In this way men get to work together and gain confidence in one another.

Until we have local cadres of companies working at each district head-quarters, our mobilization scheme will be defective from want of knowledge of each other in peace or war.

On the day of departure the commanding officer receives over from the depot authorities the various warrants and returns needed for the railway journey to the port of embarkation and on embarking on the troopship.

There is no need to dwell here on the necessity of careful watching of the men during the journey and until placed on board ship. When we remember the want of cohesion that must exist in hastily mobilized companies, and the want of knowledge by officers and men of each other, it necessitates the firmest discipline at first to weld the varied body into a consistent whole.

CHAPTER II.

EQUIPMENT.

THE process of equipping a Bearer Company is one of considerable trouble and much uncertainty, owing to our highly centralized system of mobilization at Aldershot, while all our stores are equally centralized at Woolwich.

This complete detachment of the stores and equipment in peace from the officers and men who are to use them in war leads to great drawbacks.

There is a want of knowledge of what our equipment is, what its weak points are, where it will break down, and, lastly, how to use it.

Here, again, as in the question of mobilization, decentralization is the one thing needful. And once the bearer company equipment is decided upon, all, or nearly all, of it should be sent in proportion to each military centre, that we might practise with it in peace and mobilize with it in war.

I never saw any equipment of the 2nd Bearer Company which I commanded during the Suakim expedition until it was landed piece by piece on the beach at Suakim.

As I had no quartermaster with my company, a quartermaster of another unit made out the indents on the Ordnance Department; the stores were, I believe, then placed on board, and I took them over in all the great confusion, excitement, and overwork of the base of operations in war.

But the Suakim expedition was a very tiny affair, and if so much trouble was caused by our excessively centralized equipping there, how terrible would it be in a large war. If we are to succeed we must decentralize extensively.

Had I my own regulation quartermaster, doubtless I would have seen him at Aldershot; we would have made out the indents, and he, hastening to Woolwich, would have inspected every article, seen that it was fit and strong, and when we arrived at Suakim would have again recognized it when we disembarked. I had, however, no such officer, and the confusion and overwork of the ordnance store at Suakim was so great that it was a labour of great difficulty, collecting my equipment really by chance.

The equipment may be divided into three groups—viz., 1st, the personal equipment of the men as to clothing and arms; 2nd, the surgical or technical equipment of the company drawn from the Medical Department; 3rd, the working equipment of the company—viz., saddles, waggons, water-carts, harness, cooking vessels, blankets, tools, tents, and picketing gear, drawn from the Ordnance Department.

Personal Equipment.—When the mobilized men for the company join at Aldershot, their English clothing is taken

from them, if they are going to serve in a warmer climate, and a sea-kit and any special campaigning uniform issued to them.

Aldershot differs from all other garrisons and districts in the fact that it is the officer commanding the depot of the medical staff corps, and not the district P.M.O., who is responsible for the clothing and equipment of the men.

This system is probably a great improvement on the ordinary system, inasmuch as it saves the P.M.O.—an officer of high rank—from the petty worries of looking after men's clothing and equipment; and in a recent pamphlet of mine "On the Medical Organization of the Base," I proposed that the officer commanding the suggested and much-needed medical staff corps depot at the base should be the responsible officer for the men's documents and clothing, and not the hard-worked and laborious P.M.O. of the base. But when the company organization of the medical staff corps becomes developed, as doubtless it must, the officer commanding the company will be as responsible for the men's clothing and equipment as he is to-day for the technical and working equipment of his company.

The kit inspection of the company by its commanding officer before they leave Aldershot is very important. I did not do it because it is not part of the depot routine, but it should be, as there is a likelihood of questions arising on board ship or afterwards.

The boots should be most carefully inspected, and only really good, indeed, new, boots taken.

The laces should be strong and new, and the socks in good order.

All buttons for the fastening on of braces should be doubled, so that if one falls off another remains.

The marking of each article is very important, particularly the new clothing issued at Aldershot.

The sergeant-major and all men who are to ride need riding gaiters or leggings and spurs, or *putties* should be issued to them.

The system of having water-bottles without any strap is defective, as when men go on fatigue without their waist-belts the existing water-bottle cannot be carried except in the hand.

The revolvers for the staff-sergeants of the company, and for all sergeants and corporals, should be issued at Aldershot, and not afterwards at the base, where it entails labour and trouble.

The men should be armed with some light carbine, especially the officers' servants and the batmen who are with the baggage, and who in our wars are constantly liable to be attacked. If every man of the company has not a carbine, then a sufficient number should be issued to arm the guard, and men sent to act as field hospital guards or escorts.

No man should be with the army who has not a firearm of some kind, and who is not trained how to use it. This is a first principle. Ten rounds of ammunition would be enough to carry.

Kit-bags.—All kit-bags taken by the men on service should have their names and numbers distinctly painted on them, in letters at least one inch in length. Great trouble is caused by neglect of this rule.

The half-company officers should inspect the kits of their men, and should also have a nominal roll of them in a squad book.

Whistles.—Every officer of the Bearer Company should have a whistle for attracting his men's attention.

The sergeants and the bugler should also have one each. It would constantly be of use in our detached work collecting wounded.

Hand Flags for Signalling.—A certain number of the men

should be trained in flag signalling, and a small red cross flag, eighteen inches square, on a walking-stick staff, is very useful for attracting attention, and acting as a rallying centre for the company.

I constantly used one, with good results, in the convoy work, and on the marches at Suakim.

Metal Feeding Cups.—It is useful to have a few metal feeding cups (Maw & Son's pattern) carried by the water-bottle men of the company.

Surgical or Technical Equipment of a Bearer Company.

Surgical Haversacks.—The most important article of equipment in the Bearer Company is the surgical haversack. It is of vital importance that dressings be ready to hand, and no panniers can make up for the readiness of a pouch with bandages.

Eight haversacks are now allowed for a Bearer Company. This allows one with each stretcher detachment. But it is not sufficient. At the collecting-station, and at the dressing-station, they are equally needed, and if one cannot be given to every man in the company, then every officer and N.Com., including corporals, should have one. I should say sixteen at least were needed, and even to the field hospital staff they are useful.

Every orderly and every nurse in war should have a scissors and a small orderly's case. The want of it is much felt when dressings have to be done, and there are only a few scissors available These haversacks were not issued to my company until after several days' fighting were over at Suakim, because they lay in a box in the hold of the ship, and could not be disembarked. All through the eighteen days' voyage out, we could not use them for training for the same reason, and had it not been that I had a personal

haversack given me by Messrs. Savory & Moore, we should have had no means of teaching the men what they contained.

Several men knew nothing whatever about the contents. The remedy for this is very simple. We should see more of them in peace, and when we mobilize they should be at once issued to us at Aldershot, and they should not be packed away on board ship, but the company should march on board wearing them as part of their equipment.

To do this, it is necessary to size the company, once and for all, as a Bearer Company, and tell off the stretcher detachments once and for all. The company should then fall in, always in their field or fighting order, the same sergeant with the same stretcher detachment.

This done, the haversacks should be issued, the water-bottles issued, and the men who receive them made responsible for them, as for any other article of equipment. We tried at first keeping them all in charge of a N.Com. and issuing them on parade, but really one might as well keep the rifles of a company in one place and issue them every parade. The simplest way is to issue the articles at once, and cause them to be inspected at every parade by the half-company officers. The water-bottles follow the same course, and in countries where water is precious, they should be kept carefully filled at all times, and any man drinking the "equipment water" should be severely dealt with, receiving at least a regimental entry for so grievous a first offence, and trial by court-martial, for "disgraceful conduct," for any second attempt.

Medicine Panniers.—Two medicine panniers are issued to the company. No. 1, or the medicine pannier, is, I believe, sufficient for the demands upon it, as it can be replenished from the advanced stores depot, and the use of medicine is not excessive. It is, however, quite certain that No. 2 pannier—that is, the material pannier—does not contain a

sufficient supply of bandages and dressings for an average fight. It is not possible to dress more than fifty men from it; indeed, if there were any bad injuries, such as gun-shot wounds of thigh, needing splints and bandages, it would not dress forty men. This is quite insufficient; for the Bearer Company is constantly in advance of all supplies, and one cannot extemporize bandages in the deserts we campaign in.

What then is the remedy? It is to add on a pair of No. 2 reserve material panniers to the equipment of the company. These panniers can afford dressings for 100 more men, and the French system of estimating the quantity of bandages by the number of dressings is a very good one. The question is, how many wounded may a Bearer Company have to dress in two or three fights? This quantity of dressings, and a little more, is needed.

Despite the paragraph in the regulations that a Bearer Company is (like the Holy Roman Empire) one and indivisible, as I foresaw from the beginning, the moment the occasion seemed to need it the company was broken up and stationed miles apart. Happily we had foreseen this, and had drawn extra material to meet it, in the shape of extra medical comfort boxes and haversacks and bandages. But this was only possible because Suakim was entirely a campaign round the base, and never far from it.

The medical arrangements at Suakim may be compared to a telescope closed up in its case—it was intended that it should have been drawn out from Suakim to Berber, 220 miles. It never was drawn out longer than Tambook, 30 miles from the base; hence the strength or weakness of our medical arrangements were never put to a test like that of the Nile column or of the Peshawur,-Cabul,-Afghanistan line of communications of 1878–79–80. Had they been so tested the question of supplies might have arisen.

In all our wars the unorganized mass of camp followers cause great trouble as they fall sick and get wounded, and have to be cared for, while no previous arrangements have been made for them by issuing them bandages and providing sick carriage for them.

The Medical Comfort Boxes.—These boxes, although supplied by the ordnance store department, are filled by the commissariat department.

They are a killing load for a mule, and unless the strongest animals are used the animal subsides under them. I caused our pair to be weighed at Suakim, and found No. 1 weighed 121 lbs., and No. 2 136½ lbs., and as a mule load is generally only 180 lbs., there was an excess in this single load of 77 lbs.

This needs readjustment, and the principle of putting all the wine in one box, and all the arrowroot in another, is wrong, because you cannot break up the load. If each pannier contained half wine and half other comforts, one pannier would be ample for short expeditions. Now the two must be sent. The weight, however, is a fatal objection.

In issuing medical comforts the pewter or metal feeding cups are far more suitable for war than the crockery ones recently the pattern. Crockery may survive at the base hospital, but beyond that enamel ware is probably the correct thing.

The working equipment of the company is drawn from the ordnance department by the company quartermaster, on the signed indent of the officer commanding the company.

Before writing one further word it is necessary to refer to the field equipment account or ledger, required to be kept by all officers who become direct storeholders or accountants to the ordnance store department in the field.

This account, which is a simpler form of the equipment ledger used in peace times, is the book in which all stores

received from the ordnance department are entered under their proper heading, and the vouchers received with the articles are kept as a record with the book. All articles returned into store are entered also in the book on their proper page and place, and the vouchers received for them, when handed in, are also kept and sent in with the book.

The difference between the two accounts will be the articles expended or lost on service, and it is of the greatest importance that all articles lost on service should be certified by a board held for the purpose before the termination of the campaign.

The quartermaster and his sergeant take over this duty; but if there be no quartermaster, it falls on the commanding officer or other officer of the company, and every young surgeon should be taught how to keep this book, by receiving instruction from the quartermaster of the medical staff at the station he may be serving at.

The equipment account or ledger, together with the vouchers and board proceedings as to losses, will be sent in at the close of the campaign to the senior ordnance store officer with the army, who, in due course, will transmit them to the Commissary-General of Ordnance at the Royal Arsenal, Woolwich.

What seems to me to be a highly deplorable system is the method in vogue of sending out all our ordnance equipment stores to the ordnance store officers at the base, causing great labour and confusion at the ordnance depot there, and really causing a double trouble.

I believe that when any medical unit takes over its equipment at Woolwich, or other English garrison, that act should be a final one. The equipment should then be in the keeping of the medical department, and be landed with the medical staff corps when they land. Now, however, all articles have to pass through the ordnance depot at

the base, and as every one there is terribly overworked, and cannot possibly attend to all comers, there is a scene of great confusion, and people simply take what they can find.

I quite admit that the ordnance department could hold over reserves needed later on in the campaign, but all the Bearer Company equipment should be taken over in England and from that time be in medical custody.

I sincerely pitied the overworked and undermanned officers of the ordnance department at Suakim, doing for us work which we should certainly do for ourselves. The medical department while it claims power should also accept responsibility.

The equipment of the Bearer Company is laid down in the medical regulations, and there is no occasion here to go into detail about it. A few remarks alone are needed.

Camp Colours and Lines.—Small colours and lines of one hundred yards length are needed with the equipment, to mark out the camp, and to dress the paths and roads.

Remembering our Afghan trouble on this head, I had two or three such lines made up out of unravelled rope, and they were most useful to ourselves and to other corps at Tambook and elsewhere.

They should be entered in the equipment.

Spare Pins for Litters.—We were constantly losing our litter pins. No spare ones are supplied. This needs to be remedied; 10 per cent. should be granted. They are small and easily carried.

Spare Nuts.—No spare nuts are sent with the army for the litters. A due proportion should be supplied.

Spanner for Nuts.—A spanner or wrench to fit the litter nuts is needed as part of the equipment.

I have seen in the field an important reconnaisance

practically fail because a spanner needed by the engineers for special work had been forgotten.

Spare Straps.—Spare straps for the cacolets and also for the litters should be sent out. They get much cut up from hasty folding up of the litters and cacolets. There seems to be an immense number of straps on a litter, and they should be diminished if possible.

Punch for Cutting Holes in Leather.—As the harness is made up for English horses, when it has to be fitted to smaller Eastern animals there is much punching of new holes; the punch is therefore much needed. It is not now supplied.

Cutting-pliers for Wire.—A cutting-plier for cutting wire is also needed.

Portable Clock.—A portable clock, strong and light, is also a necessity; and I remember that in Afghanistan we missed one very much in the field hospitals. Accuracy of work is highly important, and definite hours is a large factor in this matter.

Litter Aprons.—It is a question if the canvas covers for covering the bodies of patients are needed. The litters take a long time to prepare, and everything should be done to render their fitting very easy.

Litters.—It is a question if the litter, as we now have it, is really a boon to the army. The motion in marching is excessive, and liable to give sore backs to animals, and mules fit to carry a pack saddle, two litters and two English soldiers are not attainable every day. I should like to see prizes offered for the best means of carrying one man lying down on one horse or mule.

I cannot but think there must be some means of achieving this, and it would be an enormous boon.

In the same way a single arm-chair saddle for wounded men is needed, so that one man could ride on one mule in a

really comfortable arm-chair saddle. The public attention has not been drawn to this subject, or surely something better could have been developed than the existing articles.

Cacolets.—With cacolets there is less fault to find, and with large well-trained horses two men might be easily carried. Why we limit ourselves to mules is not quite evident. I suppose in the mountain countries where cacolets came from mules were the ordinary transport animals, but horses fulfil the work very well for a campaign.

Blankets and Waterproof Sheets for the Wounded.—It is absolutely essential, in view of the constantly recurring chances of wounded men being detained at the dressing-station of the Bearer Company all night, or in wet cold weather, that a certain proportion of large waterproof ground sheets should be supplied to the equipment. On these sheets the wounded would be protected from damp or rain.

Further, a fair proportion of blankets are needed for the use of the wounded, to cover them at night if detained at the dressing-station. Men with wounds dressed, and suitably fed, and placed in any shelter, on ground sheets and covered with blankets, are practically independent of hospitals for the first few hours after any action.

This duty may constantly fall to the lot of the Bearer Company.

Light Ambulnace Carts.—What is very much needed is a very light, strong ambulance two-wheeled cart, not waggon. Our cumbrous unwieldy waggons may suit the highways of Europe, but we want for our wars light carts with one or two horses, so lightly built as to be easily lifted over obstacles. It is not a question of carrying men with infinite comfort, but of carrying them at all, and though we may preserve our existing waggons for garrison and main road uses, we need a cart to come in between mule pack transport, and the heavy four-wheeler ambulance waggons.

I carried many men back from Jellalabad in 1879 in the two-wheeled engineer carts lent us by General Maunsell, C.B., who, as colonel, then commanded the Bengal Sappers. Such carts, wide enough to carry two men lying down, no cover beyond blankets, and a driver in front, seem to be able to go everywhere.

Ambulance waggon covers should be of a *khaki* or dark grey colour. Their present white colour is very glaring, and attracts the fire of the enemy. This remark applies also to white tents.

Carts, Tip—General Service.—These carts are the means supplied to convey the various panniers and equipment-boxes of the Bearer Company when mule carriage is not used. There is nothing whatever in their favour. They carry the articles in an uncertain, confused manner, and the packing is not accurately laid down.

The men of the company also cannot sit on the carts with any attempt at comfort, so that rapid movement is very difficult.

The true type for all these conveyances is the artillery system, where the ammunition boxes are carried on specially constructed tumbrils, the men sitting on the boxes themselves as seats; such a system is far more suitable for war than mere cart packing.

By this system the N.Coms. and men who are not mounted in the Bearer Company would sit on the boxes, and could then be rapidly carried to the front. On arrival there the boxes would be lifted off and the dressing-station pitched. The whole equipment of the company should be reducible to packages fit to carry on mules if needed. These same packages would fit on the special carriages as seats.

A certain number of stretchers could be carried on these tumbrils, and such a cart would also suit as a battalion cart for carrying the panniers, stretchers, &c., of the battalion aid.

The ambulance waggons would move more slowly than these carts, and would arrive later on the field of action.

Ambulance Waggon Drill.—At the training school at Aldershot we should be taught to take a waggon to pieces and pack it for board ship, and to put it together again.

Fitting of Harness.—Considering the needs of war, our men should be taught to fit harness to horses and mules.

Saddler.—A saddler is needed in every company.

Water-carts.—These carts need more than one tap or means of drawing off water. Captain Jones, R.E., has invented a seemingly good cart.

The confusion and delay in trying to water a number of men from one tap is excessive. Side taps could be made.

Water-cans.—Every water-cart issued to Bearer Companies should have two or more covered water-cans for issuing water attached to it. They are most convenient for giving water to collections of wounded or sick men.

Water-bottles.—The water-bottles issued with the field haversacks should have the corks or stoppers fastened to the bottles by a light chain and pin pushed through the cork. If the cork gets lost the bottle is useless. All bottles need a number stamped on them.

Water-barrels for Mountain Equipment.—In countries where water has to be carried for the men of the company and for the wounded, distinct supplies are needed for both. Any soldier of the company drinking the water issued for the equipment water-bottles of the company should be punished in the severest manner. This is a matter of vital importance.

Stretcher Slings.—The existing slings for the stretchers are ill-devised, and weary those who have to wear them very much. They throw the weight too much on the neck and not on the shoulders, so that the tendency is for the bearer to fall forward while marching.

The Lanterns.—A number of lanterns are issued for the Bearer Company. They are to be filled with kerosine for use. At once on landing they should be filled and trimmed, and be so made that, when filled, the oil cannot run out, but that a cap be simply unscrewed and the lamp lit. For all night work, the lanterns should be constantly borne in mind. Certain men should carry them slung on their belts if needed, like the lanterns of the London police. The lanterns should be inspected by the half company officer at any parade for night work.

Stationery Boxes.—Two tin boxes, like uniform cases, are supplied to the company, and a third wooden box is also issued. They are awkward to carry, and are not fitted up inside with any convenience for holding paper in regular order. There is a need of a pannier fitted up like an office box with writing place, pad, inkbottle, pigeon-holes, and places for books. It should be able to form a table to write at, and be somewhat on the plan of the field panniers with straps for pack-saddle, &c.

Army Field Forms.—All our war forms should be made quite small and tiny. States, crime reports, memo. forms, weekly returns, indent books, equipment ledgers for the field, guard books, should all be of the smallest size possible.

Postal cards should replace letters very much. All forms should be in books with counterfoils. Our weekly returns are of enormous size.

The Swiss medical corps has a book of forms for the doctor's use, very tiny and portable. Our weekly states for war need only twenty or thirty disease entries, all the rest could be filled in by numbers and abbreviations.

Case books should be reduced to a quarter the existing size so as to be like large memoranda books, and every doctor should have his own.

Invaliding forms for war should be most simple, and a principal medical officer of colonel's rank, or a brigade surgeon, should have power absolutely personal to himself to invalide without a board certain types of cases. Let us kill out all writing, as far as we can, in war.

Stencil Plates.—Every medical unit should have a stencil alphabet and numerals; they are very light and portable, and fit into a tiny box.

Office Stamps.—Every unit should have a rubber stamp of its new name issued to it on mobilization. It is most useful for marking memos.

Letter Bag.—A letter bag should be issued for the messenger of each unit. If he be riding, he has no way of carrying a letter or important papers at present.

Memo. Books for Noncommissioned Officers.—Every N.Com. should be issued a memo. book and pencil in war time; it is constantly required.

Tin-openers.—Issue a tin-opener to every cook, and let him fasten it to his belt by a lanyard. He always needs it, and it constantly gets lost.

Pioneer Equipment.—In all field hospitals and Bearer Companies the men told off for conservancy work should be equipped, like pioneers of infantry, with shovel, pick, spade, saw, &c.

Pouch for Orderly-room Sergeant or Clerk.—This N.Com., who keeps the list of wounded arriving at the dressing-station, should have either a haversack or pouch, with casualty returns, memo. forms, pencils, and everything needed for making a hurried report. The continual demands for returns of casualties in action is most irritating, and no means exist now of rapidly preparing them.

Wallet for Shoemaker's and Carpenter's Tools.—The shoemaker's tools supplied to a Bearer Company should be packed in a leather folding wallet, with pockets for the nails of

various kinds, now supplied loosely in the panniers. They are very needful.

The tools for the carpenter—a most urgently needed artificer in all Bearer Companies and field hospitals—should also be portable, and packed up in a folding leather wallet. No saw for cutting splints is allowed, but it is urgently needed.

Poles for Lanterns and Flags.—These should be made in jointed pieces, like a fishing-rod, so as to fit on the sides of a pack-saddle.

Keeping of Equipment Ledgers.—I have to thank Mr. Conductor J. A. Roberts, Ordnance Store Department at Woolwich, for the following valuable summary of rules about equipment ledgers :—

On the mobilization of an army corps (at home), the officers appointed to command Bearer Companies should, at once, demand from the stationery department the necessary equipment ledgers and forms of vouchers and of requisitions.

Demand should then be made upon the ordnance store department for the authorized equipments for a Bearer Company as detailed at pp. 362–8 of "Regulations for the Medical Department of Her Majesty's Army, 1885."

In the event of a Bearer Company being organized in the field, the same would be notified in the general orders of the forces, and the S.O.S.O. would supply the requisite ledger and forms, but the officer commanding should demand—*vide* paragraph 25 "Regulations for the Supply of Stores to an Army in the Field."

On receipt, all stores should be inspected and compared with the vouchers which accompany them, and any discrepancy as to numbers or description that may be found to exist should at once be brought to the knowledge of the ordnance store department for rectification.

Receipts and issues should be posted in the equipment ledger as soon as the transactions have been finally settled, and the vouchers should be retained, to be forwarded, with the equipment ledger, to the S.O.S.O. at the head-quarters of the field force (for audits), under paragraph 33 of "Regulations for the Supply of Stores to an Army in the Field."

Copies of equipment ledgers sent in should be retained by the officer commanding to enable him to reply to any observations addressed to him by the S.O.S.O. (acting on behalf of the Secretary of State for War) under paragraph 38 of "Regulations for the Supply of Stores to an Army in the Field."

The officer commanding a Bearer Company is accountable, under paragraph 40 of "Regulations for the Supply of Stores to an Army in the Field," for the arms and accoutrements, &c. &c., brought in with wounded men, but they are not to be accounted for in his company equipment ledger; a record is to be kept in the "Pack Store Book," and, on the transfer of the men (individually or otherwise), their arms and accoutrements, &c., are transferred with them, with the inventories of their effects.—*Vide* paragraph 42 of "Regulations for the Supply of Stores to an Army in the Field."

The officer commanding a Bearer Company will, in addition to recording all receipts of arms, &c., of wounded men in "Pack Store Book," send receipts for arms, &c., so received to the officers commanding the corps to which the men may belong or be attached (paragraph 40, "Regulations for the Supply of Stores to an Army in the Field"), and the corresponding voucher will, upon receipt from such officer commanding corps, be passed to the S.O.S.O. at head-quarters, under paragraph 43 of "Regulations for the Supply of Stores to an Army in the Field."

Ammunition received with wounded men to be collected and retained in a place of security, but to be transferred,

with the men, in the same manner as arms and accoutrements, &c. (paragraph 46, "Regulations for the Supply of Stores to an Army in the Field").

Any losses sustained by the Bearer Company in the field should be brought to the notice of the general officer commanding, through the assistant adjutant-general, with a view to the deficiencies being written off charge after being investigated by a court of inquiry.

On the return of troops from active service, the officer commanding a Bearer Company should, before leaving, balance his equipment ledger, and compare it with his *actual stock*, and, if any discrepancy should be found to exist, a report should at once be made to the general officer commanding, through the assistant adjutant-general, under paragraph 37 of "Regulations for the Supply of Stores to an Army in the Field." The equipment should then be returned to store, with vouchers detailing the stores returned. On receipt vouchers being returned by the ordnance store department, they should be posted in the equipment ledger, and the equipment ledger should then be rendered to the S.O.S.O. under paragraph 37, "Regulations for the Supply of Stores to an Army in the Field."

CHAPTER III.

TRANSPORT.

TRANSPORT is one of the most vital points of efficiency in any army, and it has always been one in which ours has been most defective.

To maintain, in peace, the large transport force needed in war would be useless, yet we are entirely without the means of rapidly expanding our transport corps in war time save

by calling in the tiny reserves of the corps. Why we have no transport militia in just the same manner as we have infantry or artillery militia I can never understand.

We are, in the medical service, slowly developing a militia branch of our corps, and there should be no reason why transport should not be similarly dealt with. If the transport of the sick and wounded is important—and every one says it is—the means of carrying them should be available.

Yet while we trust to the transport corps, I have always the greatest doubt as to how we shall succeed. It seems to me that the whole of the transport of the medical corps in war time should be handed over definitely to the medical service, and, while made available in any special way needed by the army, the officers and the men would belong to the reserves of the medical staff corps either in its regular or militia branch.

I would treat the medical transport exactly as if it was regimental transport, and mobilize it in the self-same manner. A quartermaster or warrant officer of the medical staff corps should be the transport officer, and should go through a course of instruction in the work in the same way that the regimental transport is trained.

The strength of each Bearer Company on mobilization should be increased by the number of men needed for the company transport.

It is not a large number of men; probably twenty men extra to the company would completely provide for its wants as far as drivers were concerned. I think they should come from the militia branch of the corps, and should, during their annual training, be sent to learn transport work.

They should also be taught ambulance work, and thus would be doubly useful.

When the local company was mobilized for war, these men would fall in with it as part and parcel of it, and a warrant

officer or a quartermaster would be posted to the company as transport officer or conductor.

I make no reference whatever now to the horses—they are really a secondary matter, for I have always seen in war that animals sooner or later turn up—but the disciplined men to drive them are non-existent.

I could not trust to the overworked and undermanned transport service for the work. If I were asked what would be an ideal system, I would ask to have the medical corps placed on the same footing as the engineer corps, and to have a permanent Bearer Company and a permanent field hospital kept as models mobilized at Aldershot.

These would have their complete *personnel* and equipment and their transport regularly cared for and looked after by the regimental transport drivers of the medical corps.

In posting officers and men to such units for instruction, I would have them taught how to groom the animals and the outline of the general principles of horse management. But I still say that it is not the animals who give trouble in war; it is the want of disciplined drivers that is felt.

The two units I refer to, if placed as training institutions at Aldershot, would be utilized as instruction centres, and the officers, while going through their course of instruction there, would also learn the principles of horse management. In war time superfine grooming is not needed, and a general knowledge of work alone is needed.

What very frequently happens in war time is that purchasers of horses are sent far and wide on the outbreak of a war, and horses are assembled in great numbers at the base of operations at the remount establishment, but the disciplined drivers are absent. I would supply these from the medical corps reserves, and draw the animals without drivers from the remount establishment.

At the end of the war I would return the animals to the

remount establishment and utilize the men as general helps in the subordinate positions in the returning hospital or sick transport ships.

The fully equipped Bearer Company and field hospital at Aldershot is urgently needed, and, in case of war, these two units should be the first for service either as complete units or as permanent central sections in companies filled up by the mobilization system from the reserves.

It is, to my mind, absolutely essential that the medical department should have its own first line transport—that is to say, the Bearer Company transport and that of the fourteen field hospitals needed in the front of the army. This transport, while belonging to the medical corps, should be available, under the orders of the general, for any special duty needed of it when not wanted for its own special work. I so worked my transport in Afghanistan. It was posted to my field hospital, and entirely under my own command, but when a convoy was needed I sent it as a unit to take its share in the general duty, and on its return it again came back to my camp lines and again rendered me ready for the field. This whole question of transport, so far as the medical service is concerned, is great because it is so small. If once the few animals and drivers needed were given over to us, the question would be at once at rest.

It is absolutely our duty to provide the trained drivers needed for this work, and not to trust to the transport department. So long as we do so we will be perpetually liable to break down. It constantly happens in war that a well-trained hospital corps man who could also groom a horse or harness a cart would be of the greatest use, and on a sick convoy a driver could often not only drive his animal, but could give some care to the patients on the cacolet or in the ambulance waggon. Even if the horses not belonging to the proposed permanent field hospital and Bearer Company

remained in peace, in custody of the transport department, there is no reason why, when we are mobilized for war, the horses should not then pass into our charge, and the transport men be left free to attend to the general army transport.

I dwell thus on the need of our having our own transports in order that we may hold our own department completely responsible for having us perfectly ready for war, and so long as another independent department is responsible for our transport we can never answer definitely for our readiness.

In the field, also, there is absolute need of unity of command in these units. One officer can alone be responsible for the efficiency of the company in its every detail, and, if he is to be allowed to shelter himself under the shield of some other person, he will not be personally responsible.

It is the commander of the unit who alone knows what sacrifices of animals, or men, or time, or aught else are needed to achieve his object.

No transport officer or any other official save a senior responsible commander should have power to interfere in any way in the detail of duty or work of the company. If an officer of the transport service is posted to a medical unit, he at once loses his independent status, and becomes simply the executive officer of the officer commanding the company, and has no initiative of his own within the company.

Hence the frequent inspection of the transport animals is a distinct and important duty of the company medical commander. Hence, also, for the cleanliness of the lines and the general disposal of the camp the medical commander of the whole company is responsible. For this reason the medical officer of the company on duty for the day should as carefully inspect the animals and their lines as he would inspect the medical staff corps tents and men.

In the same way as regards the discipline of the drivers. Although the company commander may delegate to the transport officer certain minor punishment powers, just as he may delegate them to the medical officer of the half company, the full powers of a commanding officer within the company could only be put in force by the medical commander of the company; in fact, there cannot be two kings in Brentford, and either we should hand over the full command of the company to the transport officer if he be trained and fit to take it, or we should have the complete control, not for the sake of command, but simply that we may know accurately whom we are finally to hold responsible.

Unity of command, then, is, I say, absolutely needed, and the true way to achieve it is to hand over the transport superintendence to a quartermaster or warrant officer of the medical corps, and to provide drivers recruited, as far as possible, from the corps reserves. For the horses are quite disciplined enough, and will obey any orders they receive; they are not the trouble. It is the drivers that cause the bother. If, in war time, in any unit officers or men find that they can shelter themselves under an undefined responsibility to some far-away authority, they will not obey the authority on the spot. Thus, in a medical Bearer Company, if the transport drivers find they can appeal to some transport official far away from the company camp, they will do so, and thus throw obstacles in the way of efficient local control. Hence I consider the drivers of the medical transport should be, like any other regimental drivers in infantry, artillery, engineer, or cavalry transport, part and parcel of the unit, and completely subordinate to the company commander. Even with local auxiliary transport handed over to the medical department in permanence for the war, the power of authority over them should be completely in

the hands of the medical service. I do not myself see any medium path in these matters.

Having spoken thus much as to general principles, we may now go into details. If we had the urgently needed permanent Bearer Company mobilized at all times at Aldershot, we would there find a perfect training school for our field work.

When mobilization was necessary for an army corps, this Bearer Company could be broken up into half companies, and each half raised to the full strength by reserve men joining, or even one fourth of the permanent company might be utilized as the central cadre of the four Bearer Companies.

This would provide four of the eight companies of the army corps, and probably Woolwich and Dublin would supply the other companies needed. The horses and their equipment would be supplied from the remount department, and the purely medical *personnel*, the transport drivers, horses, waggons, &c., would be mobilized and rendered perfectly complete at the mobilization centre, and then marched down to the port of embarkation complete and as a unit, and so embarked on board ship, ready to disembark complete for the field.

A second course would be to mobilize the medical *personnel*, and the transport drivers, harness, waggons, and all things needful, except only the horses, and thus embark them for the base, trusting to the remount establishment *at the base* to supply the needful animals.

But as soon as the army and the nation really understand the need of an efficient Bearer Company, and what its functions are, they will never allow an army to leave England without completely equipped units of the kind.

It is absolutely essential that all Volunteer Bearer Companies in our large towns and counties should arrange

for their own transport by getting authority to increase the company by the number of men needed as drivers, and by getting a hiring allowance for the horses needed for the annual drills, and in war time filling up their horse wants from the reserve of horses in the country.

There are some important points about the transport which need to be dealt with in detail, and we may now refer to them.

Officers' Horses.—The existing system by which medical officers of captain's rank receive a sum of money (£50) to buy a horse for a campaign is to my mind entirely fatal to efficiency. It is a shunting over on the individual of that responsibility for the efficiency of the individual which is entirely the duty of the central authorities of the army. To give an officer £50 to buy a horse on a hostile shore where no horse can be obtained for love or money is simply fatal to efficiency. To allow a medical officer to buy the cheapest brute he can pick up, and to save so much money on the purchase, is fatal to efficiency. Medical officers need good, well-trained horses; they have constantly to dismount to aid wounded men or to examine sick ones. A wild, unbroken horse picked up for a few pounds will not suit for this work. I have seen officers buy a horse for £25 and at once remit the balance to their agents in England, and consider it a good stroke of business. It may be from a personal point of view, but it is entirely fatal to real efficiency. Again, medical officers are frequently refused carriage for their horses when the army is going to war. This is fatal to efficiency. My own Bearer Company was under fire and engaged in a general action within thirty-six hours of landing in the enemy's country, and my stores and equipment were all on board the transport, and my two officers had no horses or saddlery because they embarked without horses and saddlery complete.

My own horse was only embarked practically as a personal favour, and after urgent personal effort in London on my own part, yet I was sent into action in a few hours after landing. Medical officers' horses should be embarked with their unit, and so disembarked, and all officers' horses should come from the State, like the officers' horses in a field artillery or transport company. Thus, to-day all the transport officers of the army have State-provided, well-trained horses, but the surgeons of the army have no provision made for them, and have to try and buy in the enemy's country some raw, unbroken beast unfit for the field. But a doctor so mounted is inefficient; nay, he may be left without any mount, and several of the officers of the Bearer Companies of 1882 were so left without horses, and had to advance thus after the enemy. In the 1885 campaign, as I said before, my own horse was only embarked as a favour; my officers' horses were non-existent; and in the 1st Bearer Company, I believe, the horse of the officer commanding did not go with him. All this is not war as I understand it. It is chaos and confusion and readiness to break down.

The Admiralty only need to be told that a Bearer Company is a unit, and that its transport is its life's blood, and that without it it is inefficient, and that the whole should be embarked in the same vessel. Probably the newness of the Bearer Company as a unit in our army has much to do with reference to its existing absence of complete and compact embarkation.

Harness, Saddlery, and Line Gear.—The whole of the harness, saddlery, pack-saddle equipment, cacolets, litters, and ambulance waggons are in the general custody of the medical officer commanding the company. He indents for them, shows them in his equipment ledger, and is financially responsible for all loss to them. But they are in the actual custody of the transport officer—that is to say, as he and his men have to deal with them, they have them in their

keeping, and are the persons responsible for their good order. But the medical officer being financially and personally responsible, he can, and should, hold frequent inspections of them as well as of the animals, and any neglect in cleaning, and wilful injuries or any losses not at once reported, should be seriously dealt with. The divided responsibility is most marked here, inasmuch as the transport men have the charge of the articles belonging to the medical officers' equipment.

Doubtless the transport men are, and should be, always entirely under the medical officers for disciplinary control.

Nose-bags.—In one of my campaigns my mules were day after day eating their grain off the ground for want of nose-bags, and I repeatedly urged the transport officer to obtain some. I reported the matter to the principal medical officer, and he arranged with the director of transports that they were to be supplied. They never came, and week after week my mules went on eating their corn off the ground, with intense waste. At last about one-eighth of the mules were provided. But I now know that I should have at once personally drawn them from the ordnance department, and simply directed the transport officer to take them over and use them.

Heel Ropes.—Great inconvenience occurs unless heel ropes are used with mules. I found great difficulty in getting heel ropes for my mules, as the transport officer was unwilling to get them lest they might be lost. The new regulations enable the medical officer in command to draw the heel ropes himself and simply hand them over to the transport officer for use.

Saddler.—The constant breaking of the mule gear and the wear and tear of harness generally require a saddler to be on the establishment of every company.

Shoeing Smith.—A farrier or shoeing smith is also needed with each company.

Horse for Sergeant-major.—The sergeant-major of the medical staff corps with each company needs a properly trained horse, trained to stand fire, and which will stand steady when the sergeant-major dismounts at the dressing of wounded. These horses should be embarked from England with the company.

Horse for the Quartermaster-sergeant.—This official also needs a horse of proper training for his duties.

Bugler's Horse.—The bugler of the company also needs to be mounted, as he then becomes available as a messenger, and can also ride about sounding the call for wounded.

The Water-cart Harness is in the custody of the medical officer, and a water-man should be told off to fill the cart. He should also learn how to harness the horses or mules to draw it.

Riding by Medical Warrant Officers.—As all medical staff corps sergeant-majors and quartermaster-sergeants are mounted in the field, no one should be promoted to those posts who cannot ride. The riding of some of our sergeant-majors was ludicrous in the extreme, and they were inefficient from this cause. They simply need to be taught riding.

Telling off the Litter and Cacolet Mules.—The mules for litters should be of great height and strength, and should be permanently told off to the same litter, which should be numbered. The whole of the mules should be divided into two lots or half companies, and the same medical staff corps men should always work with the same animals. Then they get to know their own animals, and a certain interest is developed.

Fixing on of Litters and Cacolets on the Pack-saddles.—The mule drivers, when they come in from a march, take their mules, with cacolets and litters, to the space allotted for the company equipment, and then the muleteers hold the mules while the medical staff corps men unhook the litters and cacolets, which they place in due order on the ground.

The muleteers take the mules, with their pack-saddles on, to the mule lines of the company, and keep the saddles there.

In the morning the muleteers saddle and bridle the mules, and then lead them up to the equipment ground, where the medical staff corps men again hook on the cacolets and litters.

Train all Medical Staff Corps Men in the Company to Harness the Mules or Horses.—It is absolutely essential to have the medical staff corps men taught daily how to saddle the mules and harness all horses. It is very useful, and, besides, it familiarizes our men with the work.

Loading and Unloading of Cacolets and Litters when carrying Sick.—It seems to me to be desirable to once and for all fix on the lowest possible number of men for loading a cacolet or a litter, and to make that the standard for work. If more men be available, they can be utilized, but, if men are trained with many bearers, they think they must always have them, and rather object to work without them. All litter drills should be done with four bearers if possible, and all cacolet drills with three bearers.

These are the numbers it is generally possible to utilize in the field.

The Bearer Company with Cavalry.—Our existing Bearer Company is quite unfit to act in the field with cavalry. Dismounted medical staff corps men are quite unable to keep up with mounted troopers, and nothing is more needed in our army than a really efficient Bearer Company to act with the cavalry brigade.

A certain number of cacolets are also needed for horses with each cavalry regiment. I am myself at present completely unaware how cavalry are to carry any sick or wounded men when they are rapidly moving through the country.

Watering Horses and Mules.—It is advisable to cause as many spare men as possible to go with the mules and horses

to water. It gives employment, and the exercise is useful. The curse of war is its terrible inaction in standing camps; whatever dissipates it is useful.

Local Transport.—In every campaign a certain amount of local transport will be handed over to the unit to carry stores, forage, water, lint, and such like. Its discipline should be modelled as far as possible on the company generally. Parades for inspection of the men every day are most important, as natives, when ill, often hide away, and are not found until well-nigh dead. It should be an invariable rule for the officer commanding to see every one of his men and animals at least once a day. This general gathering finds out all ailing or absent men, and is most useful.

All such local levies should be taught to salute, and any other aids to discipline should be encouraged.

Transport Handbooks.—Every officer with a Bearer Company should have a copy of the official "Manual for Regimental Transport (Infantry)," and also a copy of "Exercises for the Commissariat and Transport Corps."

CHAPTER IV.

EMBARKATION—VOYAGE—DISEMBARKATION.

Under existing customs the quartermaster of the Bearer Company, having had the indents for equipment duly signed by the commander of the company, goes up to Woolwich, presents his indents to the commissary-general of ordnance at the Royal Arsenal there, and having examined and satisfied himself that he has received all the articles of equipment, they are placed in a lighter, and taken over to the docks, and transhipped to the vessel which is to carry out the company.

The mobilized company is finally handed over to its own officer commanding, at Aldershot, entrained there, and runs without break to the docks.

It is needless to point out that in units like ours, drawn suddenly together from all points of the compass, without personal knowledge of one another, officers and men alike unacquainted with each other, it is most essential to carry out from the first a strict discipline to guard against breakdowns.

When people know each other they can trust each other, but want of knowledge must be made up for by accurate supervision, and no risk of being deceived must exist. Remember that people constantly show their sympathy with soldiers going to the wars by giving them drink, and also remember that the most elaborate excuses are available for men who desire to get at intoxicating liquors.

Before moving away from Aldershot, it is advisable to call on the men to come forward and state if any complaint as to pay, clothing, or settlements exists.

The placing of the soldiers on board ship is covered by the army regulations. Keep the men berthed together as far as possible. It aids supervision, and lets the men know each other.

If, during the voyage, you discover that the cooks are defective, arrange to have them taught a little by the ship's cooks. If the servant told off for yourself is ignorant, see that he learns on board to make soup, to make a curry, and some simple dishes. The medical staff corps make bad servants so far as I am aware, as they have no training in peace and are rarely so employed.

Be most careful as to the fitness of your groom. He can do you intense injury if he be ignorant of horse management.

Disposal of Equipment on Board.—Loss of kits and small articles constantly occurs on board ship, being stolen by the

bad classes amongst the stokers, the crew, and the stewards. Great care is needed the last few days before disembarkation, as many articles disappear. Kit inspections must be held frequently, and the police told off for the voyage should keep their eyes well open.

Instruction.—As soon as the men have recovered their sea legs, after the fourth or fifth day out, instruction classes should begin, and be carried on for one hour in the forenoon and for one hour in the evening throughout the voyage. Nothing should be taken for granted, but the instruction should be complete, and include all the most simple facts. One or two men will be found on board very ignorant of all medical knowledge from having escaped instruction by being in billets on shore, which prevented their being regularly taught.

Bandaging, splinting, bleeding-stopping, must all be practised, half-company officers teaching their own classes. Diagrams would be useful on board for the voyage.

All facts about the country where the campaign is to be should be told to the men, special diseases explained, sanitary precautions needed, &c. Employ the sergeants in giving minor instruction; they often escape this duty, and they can teach much to the men; besides, it keeps them busy. It is essential that the surgical haversacks be given to the company at Aldershot, so as to be available for the instruction on the voyage.

Cause the compounder to give instruction as to the contents of the panniers containing medicines and dressings.

Explain the contents of the field companions.

Explain the medical comfort boxes.

Ambulance drill with stretchers can go on during the voyage until the men automatically know it.

Keep up the company organization as far as possible, and let all the units be distinct with their own order-books, &c.,

so as to decentralize the working and keep the unit ready for the field. Protect the men against all unfair duties, and let them feel that, while exacting complete obedience, you will guard them against any injustice.

Give up your very best men as compounder and as hospital orderlies for the voyage. This is the highest duty a medical staff corps man can be employed at, and needs the best men. If the ship be commanded by a medical officer, tell off the next senior medical officer to the medical charge of the troops and give him the freest power to recommend everything needed.

The work of commanding the men may cause one to forget at times some sanitary precautions which the medical officer will bring to notice.

Evening readings, with singing and dancing, are very pleasant, and pass the time very well.

Organize a choir for the voyage, and take care that, in addition to the English Church service, any other denominations have a quiet place told off to them for their prayers.

If any special dress is issued for the campaign, cause the men to parade in it three or four times before the date of arrival, and cause it to be carefully inspected to see that buttons are complete and that it fits properly. There is time on board ship to rectify faults, but, after landing, all is hurry and confusion.

The horses for transport need the most careful supervision, and should be visited every morning by the medical officer commanding the company, and during the day by the officer on duty, quite apart from all inspections by the transport staff themselves.

When the port of disembarkation is reached, a medical officer will come on board with orders about the company. Do not be in a hurry to disembark the men, even though all

the equipment be put on shore; it is a good thing to sleep on board that night, and leave the ship early next day with the men fresh.

The officer commanding the company goes on shore on arrival, and reports himself to the principal medical officer of the base, and also reports, by name, the officers and warrant officers of his company. If the principal medical officer of the whole force or the surgeon-general is near the base, he sees him and receives final orders as to his disposal—that is, to what brigade or division he is posted. If special local tents have to be drawn, the indents are sent to the local ordnance officer, so that the articles may be ready on the following morning when the company lands.

Local transport to carry the equipment to the camp is also needed, and, if possible, the commanding officer should see the proposed camping ground, and arrange with the quartermaster-general's people as to its exact locality. If interpreters or local labourers of any kind are used in the war, they should be applied for.

On the morning of landing, see to the men's breakfast being ample, and let them take the day's rations, cooked, with them.

See that the horses are fed before landing and that the forage for the day is duly ready for transport to the shore.

Horses are feeble on their legs for a day or two after a voyage, and need to be exercised before hard work.

Let the half companies land under their own officers, and tell off an intelligent sergeant with the baggage.

On getting to the camping ground, see that all the men take their share in the fatigues. The medical staff corps men are so unaccustomed to fatigue work in peace that they sometimes fight shy of it in war.

All officers and all men should share in it, and all are on duty, and all are confined to the company camp, at all times,

in the field—that is to say, no officer and no man is to leave camp without permission.

To this rule there is no exception.

Very heavy and exhausting duty will have to be done for the first few days in taking over and distributing the equipment, opening cases, unpacking boxes, fitting harness and saddlery, and making the company generally fit for work. All this labour is intensified by the existing system of consigning articles for the company to the ordnance store department.

It involves immense labour on the two departments, while no doubt the true principle should be to land all articles needed for medical equipment and hand them over to the medical staff corps depot at the base. This depot should be a Bearer Company charged with the responsibility of sick transport, fatigues, and storekeeping for the medical department at the base.

CHAPTER V.

CAMP ROUTINE IN THE FIELD.

THE general principle which should guide this routine is fixed hours for fixed duties, and a certain amount of definite rest at definite periods.

System is needed on all such work. On the officer acting as adjutant, and the sergeant-major, much of this responsibility falls. They should always be on the alert, as the Bearer Company is likely at any moment to be turned out in case of alarm.

Reveille.—At whatever hour *reveille* is fixed, the cooks should be called at least half an hour beforehand by the sergeant or N.Com. of the company guard. To achieve this

calling, the cook should sleep in a definite tent, or spot, every day, so as to be easily found. The cook leaves everything ready at night for the morning's work—wood chopped up, water drawn, tea and sugar told off, and bread ration ready for issue. Before he goes to sleep, he reports to the sergeant-major that this has been done.

By calling the cooks before the men, the "gunfire" tea or coffee is ready early—a very needful thing for men in the field, never to be neglected.

The men should be made to dress themselves as carefully as possible in war time. Our army seems to delight in complete neglect of dress rules in the field, mainly because the peace dress is irksome and unsuited to exertion, and the reaction from it runs into complete neglect of all dress rules.

Men can be kept fairly in order in the field as regards dress, and we have all seen Indian regiments like the "Guides" in as good order in the field in Afghanistan as on their parade ground at Hoti Mardan.

But then their dress is very rational, and at the same time very becoming; this is the secret of their good order.

The morning sick are always seen by the same doctor, so as to avoid changes of treatment, and to keep up a continuous medical history in the company.

No men should be sent to the field hospital without being seen and approved by the medical commanding officer. He, being also a senior medical officer, can act as a consulting opinion in all such cases.

The guard posted in the evening remains on duty until the sunrise parade, when its report is received, and it is dismissed. Its place during the day is taken by the corporal of police and his assistant. These men walk about the camp, stop all stragglers, attend to the conservancy, and act as military policemen generally. One of them is to be found near the commanding officer's tent or near the guard tent.

If the company is not marching, the guard relieved off duty are excused duty for the day. If they are marching, the men can form the baggage guard with the quartermaster-sergeant.

At the morning parade every person in or attached to the company is mustered, fatigues told off, and drill then starts.

The company is drilled every morning in all its ambulance field drill, and lectured in the afternoon or on special occasions.

This drill should go on even in the front of the enemy, on the ground near the camp, so as to make the men almost automatically perfect in the routine.

Rapidity in pitching the dressing-station, in preparing the instruments and medicines, in lighting the fire and preparing the beef-tea, are all needed, and continual practice is the only road to success.

If mules have to be trained—and they soon get out of training—the whole carrying and loading work has to be gone through daily with them to break them in.

At a certain hour the men return to breakfast, say at 8 or 8.30, and are allowed rest until 10 o'clock. The officers breakfast at the same time as the men.

Office hour then comes round.

All officers attend, also the sergeant-major, the quartermaster-sergeant, the clerk, the staff-sergeants of half companies, and the police corporal.

Punishments are then, if needed, awarded, and in the confinement to barracks, which stops the departmental pay, a very useful punishment is available.

At 11 o'clock instruction or parade work is again to be carried on until dinner, at 12.30. If any hour is fixed for divisional or departmental orders, the assistant clerk should get the orders from the military staff officer of the commander on the spot, and also from the principal medical officer. If the company be unattached to any brigade or division, it

takes its orders from the principal medical officer only as a divisional medical company.

A mounted orderly is constantly needed for the rapid conveyance of letters or orders. He is obtained by mounting an orderly on a transport animal.

Everything in camp should be labelled with painted canvas labels such as, No. Bearer Company Office—Ditto, Officers' Tent—Ditto, Sergeant-major—and such like.

The flag of the Bearer Company is exactly similar to the field hospital flag; this leads to confusion. I would suggest a red margin or border round the red-cross flag to distinguish the Bearer Company.

Be careful to hand in all extra kit and valises of the men to the depot at the base. Be particularly careful that the packages are labelled and the names upon them. Pile them all in one place in the store, and point them out to the caretaker. No officer or soldier should take valuables with him to the field. All trinkets should be reduced to a minimum. The guard mounting should always have a stretcher and haversack ready by them, and at night a dark-lantern, so as to be able to turn out at a moment's notice in case of need, such as a man being shot or such like. The Bearer Company should always furnish any needed fatigues to the field hospital, and be proud to do so. The only condition is that the men should work under their own officers and N.Coms., so as to keep up a uniform discipline.

The routine of a field hospital is not so smart or accurate as that of a Bearer Company; hence the need of the men working under their own officers or sergeants.

They should also share in any camp fatigues needed, the same principle holding good of working under their own officers.

The principal medical officer present may need an orderly messenger; if so, he comes from the Bearer Company.

In sending men or animals for any duty in camp, always give them a memo. in writing as to where they are to go, and for what duty. This is given by the adjutant or sergeant-major in this form:—

No..... Bearer Company.

.....N.C.O. .....Men of No..... Bearer Company,
and .....animals, to ..... to
cary sick to ....., &c.

Date..... ..... Sergeant-major.

On return from any duty, the party reports its arrival and awaits orders for dismissal. The same principle applies to all single individuals arriving from any duty.

All lights and noises in camp should cease early, and silence should be rigorously enforced.

Washing parades for the men are highly needful; washing of the clothes of the men is of course essential.

See that every man can use a rifle; if he has not been drilled, have him trained during the spare time.

Allow no man to be free from work who cannot saddle a horse and harness the ambulance waggon teams.

Pass all the men through the work, and examine them on it before freeing them from the drill.

Cause the sergeants to learn first of all, and let them teach the men. If the sergeants cannot ride, have them gradually taught.

Cause the compounder to teach by degrees to every man in the company the contents of the field companion, the panniers, and the surgical haversack.

Cause every one in the company who can teach anything to teach another. Let the cooks teach the men by degrees how to cook.

Do not allow the men to neglect saluting or to sink into neglects of discipline. There is such a tendency in the

field, but it is dangerous to efficiency to allow too much slackness.

Remember about the disposal of the men's documents All pay, clothing, and accounts documents go to the principal medical officer of the base—a most extraordinary arrangement—and the other documents to the registrar of the base hospital. Why, I do not know; I suppose because we have no medical depot at the base.

The defaulters' sheets remain with the company, and are carried in the stationery boxes.

Send on the quartermaster and a couple of men to take over the camp ground when the division is marching; give them the needful flags and lines.

Give the quartermaster a plan of the camp you desire to pitch, and take care to stick to it as far as you can. The character of the ground must often vary its shape.

When marching into camp, allow no officer or man to leave the parade until all work is completed.

Officers report themselves before falling out.

Direct the police corporal to come up at once on nearing camp and ask for the place where the latrine is to be placed.

Hasten on the cooking of the men's food, wood being carried ready for lighting the fire if possible.

The Bearer Company should take a very full share in the sanitary work of the camp, and be willing in every way to aid in this important work.

CHAPTER VI.

UNDER FIRE.

We now arrive at the real test of the efficiency of the Bearer Company as a unit in the army. All other questions as to its working power fall into the shade by comparison with this one great test,—Can the company carry out the functions it is charged with? is it completely organized throughout for this purpose? has every want been considered? is it really a working unit? However good its mobilization, however excellent its conduct, however scientific its officers, all fall in the shade if in the day of trial the company fails in the duties demanded of it.

When, in 1873, the medical department took over the care of the sick and wounded of the army on its own shoulders, it undertook an enormous labour. It was not merely a taking over of an already organized system of working, and merely a change of masters; it was really the taking over of a tiny corps in the army, and the whole labour of building up a system of medical organization for war fell upon our shoulders. No portion of this heavy work was so incomplete, so indefinite, so unstudied with scientific accuracy, as this very question of the ambulance aid to the wounded on the battle-field and the transport of the sick and wounded in war time.

We should be indeed wrong if we at all imagined that the question is now finally settled and complete, and that the last word has been spoken on the subject.

Quite the reverse. We must look on the question as still in an evolutionary stage and really only in its commencement.

How far the regiment or battalion is to be responsible in this battle-field ambulance work for its men is a question certainly not settled. How far the brigade commander is to

aid us is not finally settled. How far the reserve troops who have not been engaged with the enemy are to be employed as help on the battle-field is certainly not decided finally in this or in any army. With the enormous masses of wounded left on the battle-field in modern fights no possible medical corps could rapidly cope, and it is still an open question if a whole brigade, or certainly a whole battalion, of fighting troops not engaged in the fight should not be handed over to us, during or after the fight, to aid in this work of collection.

It is absurd for us in our tiny corps to so centralize the labour on ourselves as to shut out the army generally from its share in the work, and we should without doubt never consider our teaching duty finished while a single man in the army is ignorant of the principles of ambulance aid. It is wrong to allow the military commanders of the army to shake themselves free from this highly important duty, and to feel quite irresponsible for the care of their wounded men. An individual brigade or division which has been heavily engaged during the day and has endured heavy losses may itself be excused from taking a share in this killing fatigue, but it is quite another question if the reserve troops who have not been under fire should be relieved from their share in the duty, and we may one day see an entire battalion of fighting men who have not been employed during the fight turned on to the field to collect the whole of the wounded at certain centres where their needs can be dealt with. We must not free the army from this duty; we must still consider ourselves merely a special technical corps of direction, and only in minor affairs of entire action, in this respect.

This subject opens up first of all the highly urgent question of the amount of medical aid with the army, and foremost and first of all the grand inquiry, Is one medical officer per battalion sufficient for war needs? It is heavy work for a

single doctor to care for a battalion night and day in the field, and men get worn out from such unceasing work. Every march, every convoy, every outpost duty done by the battalion falls upon the one doctor, and I feel very sure that one doctor is not sufficient.

With two doctors it is quite different. A single doctor can get no possible rest. With two, they can have alternate duty. Two doctors are a host; one is of little use by himself in many serious operations.

Where this affects us very much in the ambulance aid on the battle-field is in the impossibility of getting extra aid from regiments. If there was even a spare surgeon per brigade, he could march over the regimental bearers of the unengaged regiments to give assistance; but, as there is only one medical officer per battalion, he cannot go away from his corps for a moment, and the labour falls heavily—too heavily—on the tiny Bearer Company.

We may one day see this removed, when the nation understands more what ambulance aid is, and when the officers of the army generally are better educated on the subject; and with that better knowledge a fuller sympathy with our work may come. Another point which has to be considered is, if we are not wrong in withdrawing all sick transport from battalions—that is to say, if each battalion and regiment should not have an ambulance waggon with it in European warfare, and in wars in any remote country, of whatever description the medical transport may be, a certain small amount should be allotted to each battalion or unit for its own use. The Bearer Company with an army is not fitted to be at the same time a collecting company on the field and a sick transport company for the removal of the sick back to the field hospitals and communications hospitals. It is mainly a fighting, or rather a field, unit for work on the battle-field.

We need special sick transport for this convoy work back-

ward, and it is certainly not the duty of the Bearer Company in the front line of the army.

We need, then, in my opinion, with every battalion in the field an ambulance waggon, or its equivalent in transport power in local transport. Thus in India two doolies with bearers per company are essential apart from all brigade or divisional medical transport; and in the Soudan or elsewhere, if mule cacolets or camels be used, a certain number should be posted to every battalion wholly apart from and surplus to the transport of the Bearer Company of the brigade or division.

On every march in war time where this has not been done I have been asked for a detachment of my transport to go with some regiment sent some distance to a flank, or to a rear guard, or to a detached hill, and the existing English Bearer Company is far too tiny for this divided work.

Besides this, the regimental ambulance men are not *carriers* of wounded, neither are the Bearer Company men. They are *collectors*, but not carriers. The two things are distinct. Collectors may in a series of tiny journeys collect in one place the wounded of a battalion, all of whom lie in a given circle of no great radius, but they are not carriers to take these wounded men a long distance away to a central collecting-station. This is the labour of animals, or professional doolie bearers. Regimental ambulance men cannot do it, neither can medical staff corps bearers.

Hence I say that an ambulance waggon is needed with every infantry battalion on a war footing as part of the regimental transport, available, like all transport, for detached duty if ordered by the general.

If it be mule transport, the same amount is needed—viz., at least two mules with litters and four mules with cacolets. These animals pick up men on the line of march, rest tired men, and aid in carrying wounded back to the collecting-station.

The regimental bearers collect their corps' wounded, but carrying them back to the collecting-station may be beyond their physical strength. Hence the need of regimental medical transport in tiny proportions.

Bearing strongly on this subject is the very burning question of how far to the front the bearers of the Bearer Company should go, and whether they should treat the collecting-station as their advanced post or not, or push much farther forward.

Doubtless some definition of responsibility is needed.

A tiny, weakly manned Bearer Company may dissipate itself altogether in endeavouring to cover too much battle-field ground, and the question still remains open whether the collecting and dressing stations are not really very light, highly mobile *hospitals*, manned by the Bearer Company, for treating wounded on the spot, and carrying them *backward* to the more complete field hospitals in the rear, and not great collecting agencies for gathering in wounded over a large and widespread battle-field.

To-day we undertake both duties, and, while the regiments, having no ambulance transport, take little or no share in sending their wounded backward, the Bearer Company attempts to be at once a general battle-field collecting agency and at the same time a far advanced hospital. It remains for us to study how far it is fitted for this wide, indefinite, and to my mind intensely difficult rôle.

We have thus to consider—

1. Has the Bearer Company the power to collect the wounded?

2. Has it the power to convey them to the dressing-station or hospital on the field?

3. Has it full power to attend to them at the dressing-stations? and

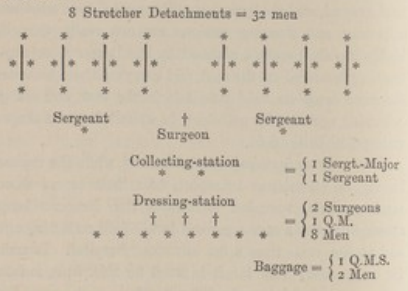
4. Has it the power to send the wounded back to the field hospitals?

Let us see how the company is fitted for this work.

The Bearer Company regulations are very clear as to the distribution of the officers and men.

Every individual man is told off to his place. There is not a single supernumerary, or spare man of any kind whatever. In fact, if during the campaign one single man went sick, it would seriously mar the work. But surplus and supernumerary men are needed in all field units if they are really meant to work with efficiency.

This diagram shows how our Bearer Company is ordered to work in war.



There are, as we said before, 3 medical officers, 1 quartermaster, and 57 men, including the warrant officer, the sergeants, and the men under one heading.

In all units I of course exclude batmen or servants. These men are not part of the technical working strength of any field unit. They are the personal servants of the officers and the warrant officers. Of these there are 5—viz., 4 for the 4 officers and 1 for the sergeant-major.

They are completely non-available for any work, and indeed are ordered to remain with the baggage, where is also relegated

the quartermaster-sergeant and the 2 men told off as company cooks for the rank and file of the company, thus further striking off 3 men from the 57 above mentioned. This limits the men available for field work to 54 as a total.

We have now come to the active working men available for duty. Putting aside the baggage party under the quartermaster-sergeant, we have four distinct groups of work to deal with—viz.:

(*a*) The collection of wounded off the field;
(*b*) The working of the collecting-station;
(*c*) The dressing-station;
(*d*) The transport generally.

Let us first describe the work ordered to be done by the regulations, and then see who is to do it.

In the first place, 32 men and 2 sergeants out of the total of 54 are told off for collecting the wounded off the field, and are equipped with 8 stretchers. The two sergeants have each charge of four stretcher parties or sections, and one of the surgeons is ordered to go forward with this party. This party collect the wounded, dress them, and carry them back 800 or 900 yards to the "collecting-station"—that is, the spot where animal transport is first available: that is to say, nearly half a mile for each wounded man to be carried.

At the collecting-station are no officers—only 2 sergeants, one of whom is the sergeant-major.

They are ordered to have with them the field companion and some stimulants.

Here the wounded are loaded into the ambulance waggons, of which 4 are ordered to be kept in front of the dressing-station and 6 are ordered to be at work behind it, carrying the dressed wounded back to the field hospitals, making the total of 10 waggons, or a carrying power for 60 wounded—viz., 20 serious cases and 40 slight or sitting-up cases.

There is one man of the medical staff corps with each ambu-

lance waggon as a kind of "conductor orderly," and, as there 10 waggons, this absorbs 10 men, which, with 36 already accounted for, makes up 46, leaving 8 men available for the dressing-station. This deals with every available man on paper in the company, and a single man going sick or being wounded would at once injure the working considerably.

One man going sick amongst the bearers would paralyze a stretcher party. One man going sick amongst the ten waggon men would leave a waggon empty.

And one man ill at the dressing-station would reduce its already meagre staff to complete weakness.

But war means constant breaking down of men, and supernumerary men must be allowed if the machine is to work with efficiency. The moment we endeavour to build up an ideal Bearer Company we are met by the general question of our regimental ambulance organization.

Besides the two infantry brigades of the division, there are three batteries of artillery, one company of sappers, and one regiment of divisional cavalry left wholly without any ambulance arrangements. Thus, while we allow a Bearer Company in full to the cavalry brigade of three regiments and one horse-artillery battery, and while we allow one Bearer Company to the corps troops of five batteries and some sapper companies, we allow one regiment of divisional cavalry, three batteries of divisional artillery, and one company of divisional sappers to go into the field altogether unprovided with any battery or company bearers.

Who, then, is to care for these men if wounded?

I maintain that, besides developing cavalry ambulance men, we should post to each battery and to each sapper company at least two men in addition to all other aid as stretcher bearers. These men would at any rate help to remove the battery wounded from out of the centre of the battery to the place in its rear where the surgeon is at work. No Bearer

Company could possibly do this work; it is entirely an internal corps duty. The wounded men should be removed from the battery position and placed in some sheltered spot until the Bearer Company can pick them up later on.

This applies to the four units of artillery and engineers and it applies equally to the cavalry regiment of the division.

The condition of the cavalry, as far as regards their wounded, is simply lamentable. The cavalry brigade has posted to it an infantry Bearer Company, which could not possibly act with it, and in the cavalry regiments themselves there is no aid whatever beyond the single surgeon posted to each regiment.

First of all we need with each cavalry regiment at least two doctors to be posted on mobilization. The cavalry most of all need two doctors, as their work is very heavy and a single doctor cannot survive the heavy duty for any long time.

But, in addition to the two doctors, each cavalry regiment needs a small ambulance picket told off to aid the surgeon—say eight mounted troopers and a N.Com. from the regiment. These officers, N.Com., and men should be taught ambulance work and all the drill of the infantry ambulance men, and, in addition, a kind of cavalry ambulance training showing how best to support wounded men on horseback, and how to dismount them. In addition, four horses with light cacolets would be very useful, and a light-wheeled ambulance waggon in countries where it could be used.

But needful beyond everything are the two medical officers per regiment of cavalry.

Carrying out the same line of organization, it is absolutely needful to post a medical officer to the cadre of each transport company. These companies are not of great strength when first mobilized in England, but when they arrive at the seat of war they are so far increased by auxiliary transport

as to render it needful to have a medical officer with them. They also need a N.Com. officer and an orderly told off as an assistance to the medical officer. As they are always with their transport, they can be carried, if injured, in their own waggons.

We thus deal with each possible unit in a division, and have to be quite certain that in no case does the Bearer Company constitute the first aid that a wounded man will receive; the first aid must come from the battalion or corps or regiment or company to which the man belongs.

No Bearer Company could possibly deal with the wounded of a division without the intervention of these men, and, even if it was increased in numbers so as to cope with the wounded, the separation into tiny parties would be highly injurious to efficiency.

We have now cleared the ground thus far that no unit of any kind exists in the division which has not a medical officer or officers, and medical aid in the shape of ambulance men of more or less efficiency.

We now advance a step farther, and endeavour to define somewhat more accurately where the function of the Bearer Company of the medical staff corps comes in and where the duties of the regimental ambulance aid ends. Of course, with all this fine-drawn detail, war is full of uncertainties, new developments and changed conditions requiring changed methods of work, but it is possible to accurately define a system in peace for war.

We now come to a point where the undeveloped state of our medical system at once causes a hitch—I mean the absence of any medical officer as the chief medical officer of the brigade. We must remember that an English brigade is really but the Continental regiment, and a chief surgeon for the brigade is very needful. We arrive at it at once when we remember that all the regimental medical officers are very junior men;

they are all surgeons, often of very short service, and we do not propose that the second surgeon asked for in each battalion should be anything more than a reserve surgeon from the Volunteer force. It is essential, then, for the sanitary supervision and medical control of the brigade, that on the staff of the brigadier-general should be posted a senior medical officer, say of lieutenant-colonel's rank, as the principal medical officer of the brigade, the sanitary chief of the battalions, and the medical staff officer of the general commanding it.

Existing regulations state that one of the medical officers with battalions in the brigade is to act as brigade principal medical officer; but, with a body of young surgeons all more or less inexperienced, such an appointment would be very useless, and no officer can so act who is subordinated to a regimental commander, and who may have to report his own battalion for sanitary neglects. When such an officer is appointed in each brigade—and such an officer is now sanctioned for the tiny cavalry brigade, thanks to the urgent representations of the late Major-General Sir Herbert Stewart—a great boon will be given to the medical corps of the army. We will then be able to hold in discipline and in check the now practically uncontrolled battalion surgeons, because the principal medical officer of a division cannot possibly exercise daily, hourly, nay, perpetual, supervision over these young officers. He needs an intervening officer, and doubtless so does the general who commands the brigade.

Nothing can be, to my mind, more pitiable that the position of the present brigade commander, completely adrift from all medical and sanitary knowledge of his brigade because he has no officer allotted to him to act as his adviser on these matters.

From an ambulance point of view, it is to us highly important, because the same officer who in camp inspects,

directs, and controls the sanitary work of the brigade will in war co-ordinate for us the brigade ambulance arrangements, and make it easier for us to do our work.

I said before that the Bearer Company cannot deal with the battalion or battery wounded as they lie wounded in their own ranks where they drop when a bullet strikes them. These wounded must be carried to one of the regimental surgeons by the regimental bearers. We place the two surgeons, with the regimental bearers, behind each battalion. They form the regimental aid station, and to it the regimental wounded would be carried.

Here the regimental wounded would be gathered in clusters and roughly attended to, but not carried away from the battle-field. In these clusters or groups the men of the Bearer Company coming up from behind would find the wounded. One of the two battalion surgeons—for there must be two—would push on with the battalion and the regimental bearers, the other would remain near the groups until he had seen the Bearer Company take them over. He would then leave them and rejoin his brigade as it advanced. This clustering of the wounded together on the field is all that can be expected of the regimental bearers; if they were to carry the wounded back to the collecting-station (which Surgeon-General Longmore says may be 900 yards from the battalion), they will never rejoin it again; this is pretty certain. To carry a man 900 yards on a stretcher is a terrible undertaking. It is a killing fatigue at any time for the strongest man. It would take half an hour to do it, and ten minutes or more to get back, even if the men desired to return; but men do not desire to return under fire, and hence we need some limitation in their duty, and that limitation is the grouping of the wounded in clusters on the battle-field and then to rejoin their regiments.

The Bearer Company men themselves cannot carry men

very far by hand, and hence it is wrong to allow them to carry men more than 200 or 300 yards, if even so much; the waggons or mule cacolets and litters should be pushed up as near as is possible, even at the risk of losing a horse or two of the transport. I know no labour so exhausting as carrying a heavy English soldier dressed in marching order on a stretcher. It is a killing labour, and to carry such wounded for from 700 to 900 yards to meet the waggons is impracticable.

With all the arrangements made by the proposed regimental bearer system, the wounded will still have to look very much to the help of the Bearer Company, for men often escape being seen when wounded, and creep into all kinds of shelter to avoid being ridden over.

To my mind, we must look on the eight stretcher parties of the Bearer Company simply as fatigue parties, not for carrying men long distances, but rather for loading the wounded into the waggons after being dressed.

One surgeon with eight such stretcher parties is completely insufficient, and he could not possibly do the work needed of him. We require one surgeon with each section of four stretcher detachments, to supervise and to dress the wounded, and control the work of his section. One surgeon would be completely overpowered, and could not supervise the work.

In view also of the almost certain contingency of wounded officers and men gathering at the "collecting-station," where, owing to the red-cross flag being flown, wounded are certain to crawl or be carried, a surgeon is needed. With our small transport allowance there is certain to be a delay in removing the wounded from this place to the dressing-station, and this delay means an accumulation of wounded officers and men dying, secondary hæmorrhage, wounded fainting and collapsed, and above all things the doctor is needed. Hence we need a surgeon here, also one sergeant as his assistant,

and at least four orderlies of a stretcher party to load men into the waggons. No fatigue men are now allowed for this purpose. We could not possibly, then, allow the wounded at the collecting-station to remain in charge of a chance sergeant. No officer or man severely wounded would allow himself to be touched by such men, and rightly, for they might do intense injury.

This collecting-station must be continually moving forward, or backward, or sideways, as the battle changes its direction, and the flag should always move with it as a guide to the returning waggons and gathered-in wounded.

We have thus claimed an increase of two doctors in front of and at the collecting-station, we have freed one sergeant-major, and demanded an increased aid by four orderlies at the collecting-station.

The sergeant-major should be with the senior officer at the dressing-station and should be exercising a general surveillance when needed over the whole work of the men of the company, from the fighting line to the dressing-station and back to the field hospital.

I should like to see small portable red-cross flags like hand-signalling flags, with screw handles jointed like a fishing-rod, so as to fold up into a very tiny compass and to be carried in men's waistbelts. These flags must be with every section as a distinguishing flag and for signalling purposes. It is most difficult to tell the aid parties on the battle-field, and hand flags seem to me very useful. They should have the number of the company on them. Every surgeon and sergeant of the Bearer Company should carry a field whistle, and use it in calling in his bearers, who are very liable to be scattered. This I regard as very needful.

The bugler of the Bearer Company should be attached, not to the dressing-station, which is easily found as a rule but to the senior of the surgeons in front, and a distinct "ambu-

lance" bugle call is needed, so that wounded men may know at night-time where the help is to be found.

The buglers' work is very trying on young boys. They should be trained to ride while at the depot, and should be mounted while in the field.

The bugler at the dressing-station seems to me to be quite out of place. It is on the field he is needed.

The close supervision of the men employed in this Bearer Company work is essential. It is very scattered, the men can easily hide away, they can keep from under fire, and the temptation of picking up trophies and valuables on the field is intense, and must be seriously guarded against.

The most severe example should be made of any man transgressing in the slightest the rules as to not collecting valuables on the field.

The supply of water on the battle-field is very urgent. The ambulance waggons should carry enough water to supply any ordinary demand. There should be hung on to the water-cart three or four strong tin water-cans with spouts for issuing water on the field.

A good-sized tin can or mug should also be issued to the Bearer Company men for use in issuing water, as men drink more easily out of such large mugs than from the tin-cup of the regulation water-bottle.

If the dressing-station is near a well, a river, or running stream, and water is abundant there, it may be advisable to send the water-cart well to the front up to the waggon or collecting station, particularly if the battle-field is away from the water supply.

It is very useful to have a red-cross flag on the water-cart to show that it is for the sick or wounded. I have well-nigh had actual fights with soldiers trying to preserve my hospital water supply from the healthy soldiers' attacks.

One of the most steady men is needed in charge of the

water-cart, not as driver, but as water issuer, and he is quite in addition to the driver, who comes from the transport service. But the driver cannot supervise the water issue nor fill the cart; hence a special man is needed for this purpose.

He should be added to the mobilized strength of the company as most needful.

In mountain countries where mules are used, a mule with water-barrels and a man in charge of the water should be pushed well up to the front, so that the scanty supply of water, always difficult to be found in mountains, may be available. He also needs some can or other vessel from which to fill the water-bottles without stopping the mule.

We find now that we stand thus :—It is essential to increase the Bearer Company in front by adding one extra surgeon to the eight stretcher detachments, and also by adding one more for the collecting-station. We also need at least four men at the dressing-station as fatigue men for loading up the wounded. So far, we claim an increase of the *personnel* by two surgeons and four rank and file.

It seems very advisable that the bugler should continue to sound from time to time the medical or ambulance call, so that all men should know there was aid approaching. The bugler should be mounted.

There will always be great confusion and hurry in the attendance of wounded men under fire, and the closest supervision of the bearers will be needed to see that they return from the collecting-station, and that no loitering or hiding on the way takes place.

In any lull in the firing, or at any convenient time, one of the medical officers in front should ride back to the collecting-station and see that all goes well. If he can signal to it, so much the better.

He must always mistrust the return to the front of men

once escaped safely from under fire. They may loiter and hide away instead of hastening back.

The wounded men being collected at the waggon or collecting station, must, if no waggon be ready, be placed on the ground under a tree, or in a group in charge of the collecting-station party, and the bearers sent back at once to the front.

If their names and time of arrival can be checked, so much the better.

Surgeon-General Longmore places the dressing-station at 1000 yards distance from collecting-station, which he places at 700 or 900 yards from the fighting line; thus one mile will intervene between the dressing-station and the fighting line. This is an enormous distance, and may often be impracticable. Here no fixed rule can be laid down, but time and distance should be shortened as far as possible. Great delay may occur in getting the wounded back to the dressing-station, such as blocked roads, narrow causeways, threatened attack by the enemy, heavy firing across the line of return of wounded.

All these chances are liable to occur, so that the orderly in charge of each waggon must be very careful of his patients, and see that they are supplied with water and comfortably placed if any delay occurs. He should also not hesitate to call on any battalion doctor he may meet *en route* to give him instructions what to do with the wounded in case of any unforeseen contingency.

If it be possible to mass the waggons into a kind of column or convoy and send them back together under one of the surgeons, this is highly advisable. The eye of the officer is of immense advantage in keeping things in order.

If wounded men can walk, they should be formed up and marched with the waggons in regular order to the dressing-station.

Slightly wounded men often give much trouble, and will not carry out orders. They are excited at their escape, and

delighted at being only slightly hurt, and become objects of curiosity to a number of people. They need to be kept in hand to prevent their being made drunk by officers and men giving them liquor on the line of return to the dressing-station. If they be troublesome, put them into the waggon in charge of a serious case.

The Dressing-station.—The wounded have now arrived at the dressing-station, and here we are at once confronted by the question of establishment.

Are two doctors sufficient? Is one quartermaster enough? Can two sergeants, five men, and one bugler do the work demanded of them there?

What is the work needed of the company? It divides itself into groups thus:—

1. Registration and classification of wounded as they arrive.
2. Re-dressing of special cases.
3. Operations.
4. Care of wounded until removed to field hospital
5. Provision of nourishment or food at the dressing-station.
6. Removal to field hospital.

Is the staff supplied sufficient for this purpose? The answer must be, No. Can the dressing-station be successfully worked with the means allowed? Answer, No. The moment the work is studied in detail this becomes evident.

The first duty at the dressing-station is the accurate reception and tabulation of the wounded arriving there.

Wherever the red-cross distinguishing flag is flying, there should be the "receiving place" of the dressing-station, and here one medical officer, with the sergeant clerk or orderly-room subordinate, should receive them, tabulate their names and class of wounds. This is essential, for without this accurate notation it is impossible to give a satisfactory casualty list. The medical officer notes their labels, and in a rough way

assigns them to the classified sections of the dressing-station—viz., (*a*) Slightly wounded, (*b*) Operation cases, (*c*) Mortally wounded and dying.

The slightly wounded section is the place where men able to walk and with slight wounds are collected and dressed under the eye of the receiving and tabulating medical officer, and by his special orders.

This work of allotment and detail of names and corps of wounded needs a clerk—viz., the company orderly-room clerk specially told off for the purpose—and he should have a regular printed field casualty form, simply printed, and showing a simple classification of wounded. He also has his portable writing-case and indelible pencil.

One surgeon will be well employed in controlling this receiving duty, in the allotment of the wounded to the various sections, in dressing the slightly wounded, and generally supervising the station.

For the dressing, control, and care of the wounded at the "slightly wounded section" of the dressing-station a detail of Bearer Company orderlies are needed, probably three men working under the eye of the receiving surgeon and the receiving sergeant. They keep order amongst the slightly wounded, carry soup, distribute dressings, and generally aid in their section.

A fatigue party of four men for unloading ambulance waggons or cacolets of their wounded on arrival from the front seems to be also needed at the dressing-station, and must be provided for. We stand now as follows as regards numbers:—

1 Surgeon.
1 Sergeant.
4 Fatigue Men, as unloaders of wounded arriving.
3 Dressers for "slightly wounded."

We now come to the "operation section" of the dressing-

station, and here, at this operating place, we assuredly need at least two surgeons. The sergeant compounder of the company is also required, and at least four other men as assistants at operations and as nursing orderlies. I do not see how the work can be done without their help; the very lifting of the wounded requires men, and the doctors alone cannot do it.

The third section of the dressing-station should be for the mortally wounded and dying, who want to be removed from amongst the other cases, and here at least two attendants are needed to attend to the wounded, to give water, to carry soup, and to lift the dead apart, and in some Continental armies it is here that the chaplain is posted.

It may not be possible on the battle-field to go into all this detail with the accuracy of an Aldershot field-day, but nevertheless the only way of successfully arranging for war is to think the subject out in detail and provide for possible contingencies. One medical officer overburdened with work cannot control or superintend the eight stretcher parties in front, and without the medical officer nothing can be done. However much we may argue or discuss, this fact remains unchanged. As the battalions move forward, all chance of aid from them passes away, and even the two surgeons we claim for each battalion are but sufficient for regimental needs. Everything depends, then, on the Bearer Company being sufficiently strong in officers and men.

Can any one dispute that the collecting-station cannot be left in charge of a sergeant, or any person a non-doctor?

Nobody dare take the responsibility of it except a surgeon, and, if we do not give him men to load up the waggons or cacolets or litters, the wounded men cannot be loaded up, because the stretcher bearers from the front cannot remain, but must go back to the front, and it is absolutely certain wounded will accumulate there.

Coming back to the dressing-station, we may be certain

that two doctors are absolutely insufficient, and that, as the wounded collect there, there must be attendants to look after them, to carry them food, to lift aside the dead, and to aid the doctors in the operating work. But we now come to other important details, and perhaps none are second to the question of battle-field nourishment to the wounded. German war experience dwells strongly on this need. The field cooking place for the preparation of soup and food for the wounded is most important, and needs at least two efficient cooks merely as cooks, but it also needs a water-man for fetching water, and a fatigue man for wood carrying and general assistance—in all, four men to prepare sustenance for the wounded.

The quartermaster would probably superintend all this highly important work, and his quartermaster-sergeant should be also at the dressing-station as storekeeper and issuer, leaving the company baggage with the police corporal in charge, and a detail of men from the company, say three, as baggage guard. I think the company's own cooks should not remain behind with the baggage on most occasions, but should march with the bulk of the company, as it is very difficult for men to get on without food, and great delays may arise to prevent the baggage arriving in time; indeed, the cooks and food form no part of the baggage as a rule. Mere baggage, too, may remain behind for days without great inconvenience, but cooks and food are all-important, and without them the *personnel* of the company themselves would suffer immensely.

It seems advisable, then, to bring up the two company cooks to the actual company column itself, and to bring up the quartermaster-sergeant also, leaving the baggage with the police corporal and say three men as a baggage escort. The quartermaster-sergeant becomes then an issuer and storekeeper at the dressing-stations and available for general work of the company.

Let us now review our numbers needed for this ideal company. We asked for 1 surgeon to increase the medical aid in front. This would make the stretcher detachments strength up to—

2 Surgeons;
2 Sergeants;
32 Rank and file.

The bugler should also be in front.

For the collecting-station we ask 1 surgeon, 1 sergeant, and 4 rank and file, setting free the sergeant-major to return to the dressing-station.

For the receiving duties and "slightly wounded" section of the dressing-station we need 1 surgeon, 1 clerk or sergeant, 3 attendants, and 4 fatigue men, or a total of 1 officer and 8 men.

For the operating or seriously wounded division of the dressing-station we claimed 2 surgeons and 5 attendants of various ranks.

For the mortally wounded we asked for 2 attendants.

For the sick-cooking we need at least 4 persons—two as cooks and two as fatigue men.

The sergeant-major and quartermaster-sergeant must also be allowed.

This would raise the dressing-station strength to 3 surgeons and 21 men nominally, but the sergeant-major and quartermaster-sergeant would be generally directing and assisting, and not at any special place.

And this general supervision cannot be dispensed with without risk of break down.

We have now to add on to all the above, 1 corporal and 3 men with the baggage, and 2 company cooks, and we then stand thus:—Stretcher parties, 2 officers, 35 men; collecting-station, 1 officer and 5 men—waggons, 10 men; dressing-

station, 3 officers, 22 men; baggage, 1 corporal and 3 men; and company cooks, 2 men.

This computation of numbers would make a grand total of numbers for the Bearer Company of—

6 Surgeons;
1 Quartermaster;
1 Sergeant-major; and
78 Subordinates of various ranks;

or an increase of 3 surgeons and about 22 subordinates in the company, officers' servants and batmen not included.

When we remember that the medical regulations of 1885 have diminished the Bearer Company aid of each division by 2 medical officers, 1 quartermaster, and 17 subordinates, by simply returning these officers and men the actual increase asked for by each division will not amount to more than 3 officers and 23 or 24 men at the outside. With these men and officers added, fairly good work may be done, but, without them, success is impossible, and the Bearer Company will break down if called upon to act.

Field Cooking for the Wounded.—It is impossible to dwell too strongly on the absolute need of field cooking being practised on every Aldershot field-day, so that beef-tea or hot drinks may be made ready at once for the wounded. This is absolutely essential on the battle-field, and it is impossible to dwell too strongly on the urgency of this matter.

Hence the cooks should have firewood ready in their waggons, and be very expert at lighting a fire and preparing boiling water. Even hot tea may be an enormous boon to an exhausted man, but, where hot water is, everything is possible; with it, any tough piece of the ration beef may give beef-tea for the wounded.

As far as I am aware, no special attention worthy of this

important matter has been as yet directed to the subject in our army, but it is one of extreme importance.

Carriage of Dressings by the Soldier.—It is highly important that every soldier carry with him an Esmarch's triangular bandage, and a roller bandage with some pins. Some antiseptic lint is also very useful, or wool for a first dressing.

Identification Label.—Every soldier might carry with him an identification label filled up by the regiment he belongs to before the war began.

I have devised the label shown on pp. 83–84; it has counterfoils, which may be torn off by the battalion doctor and by the Bearer Company officer, and they may thus record the man's name and regiment with accuracy.

The label might follow the sick or wounded man throughout his journey to the base hospital as a kind of way-bill.

Quantity of Dressing Materials with the Company.—It is absolutely essential to draw marked attention to the apparent insufficiency of dressing materials with the Bearer Company, as previously referred to, and to suggest that at least two reserve material panniers should be added to the equipment of each company.

Without some increase in the quantity of dressings, I cannot see how the company is to work.

Further, it is essential to dwell on the need of a large issue of surgical haversacks.

They are of great use, and are an immense relief to the company equipment.

I should like to be utterly lavish with these articles. Every second man in the company might have one with advantage; but at least the number (eight) now given should be doubled.

Conveyance of Wounded to the Field Hospitals from the Dressing-station.—The regulations lay down that as soon as

IDENTIFICATION LABEL FOR BANDAGE POUCH.

This Label should not be removed from the Soldier until his arrival at a Stationary Field or Base Hospital.

No. of Identification Label.....Regiment.....
Name and Rank.....
Regimental No.....
Wound.....
Bullet Extracted.....Remains.....Not Known.....
Remarks.....

Place.....day of.....18

Surgeon, A.M.D.

Re-examined at Dressing Station.
No.....Bearer Company.
Brigade.....Division.....
Remarks.....

Place.....
day of.....18
Surgeon-Major, A.M.D.

Received at No.....Field Hospital.
.....DIVISION.....ARMY CORPS.
Remarks.....

Place.....
day of.....18
Surgeon-Major, A.M.D.

For Adjutant Bearer Company.
No. of Label.....
Regiment.....No.....
Name.....
Rank.....
Wound.....
Remarks.....

Place.....day of.....18
To be torn off as a record.

For Battalion Surgeon.
No. of Label.....
Regiment.....No.....
Name.....
Rank.....
Wound.....
Remarks.....

Place.....day of.....18
To be torn off as a record.

Instructions for Use.

This document is intended for use as an Identification Label and Way Bill, for the sick or wounded soldier in the field. It should be filled up by the various officers through whose hands the wounded man passes, and should be finally preserved as a record.

Transferred to No. ..... Field Hospital ..... Division.

Remarks .....

.....

Date .....

Surgeon-Major, A.M.D.

Transferred to No. ..... Hospital ..... Division.

Remarks .....

.....

Date .....

Surgeon-Major, A.M.D.

Transferred to .....

Remarks .....

.....

Date .....

Surgeon-Major, A.M.D.

This counterfoil is for the use of the Battalion or Battery Surgeon who first dresses the wounded man.

The M.O. should tear off this slip and keep it as a record.

This slip is for the information of the Officer commanding the Bearer Company where the wounded man is examined or dressed, and it should be preserved as a record.

the wounded are re-dressed at the dressing-station, and after they have been refreshed and restored by soup, they are to be carried back to the field hospitals and handed over to them.

Nothing is more easy than to say this, or to put it into a code of regulations; but nothing is more difficult—nay, impossible—to carry out.

The Bearer Company has only ten ambulance waggons altogether, and, with mountain equipment like litters and cacolets, the carriage power is absurdly small. To send any of it back from two to three miles from the battle-field is to ensure failure for the company in its collecting work on the field. I would rather see the Bearer Company devote its whole attention to the clearance of the field, and the collection of the wounded at one central place near or on the field, than attempt to send one man back to the field hospital till all was over for the day. What wounded men want at first is not hospital care; the first aim is collection of the wounded and clearance off the field, so that they may not die in the night, or be robbed by marauders, or ridden over by cavalry or artillery. The question of hospital treatment is quite secondary for the first twelve or twenty hours, always premising that the Bearer Company dressing-station is efficiently manned and officered for its true work as the ambulance or light hospital on the field, and not undermanned as it is to-day. When once the wounded man knows that he has been gathered in and dressed, and is under the eye and care of the medical officers, his troubles *pro tem.* are over. With a good camp fire, with soup, with warm drinks, with careful attendants placing the wounded in bivouac lines like open-air wards, and at once setting up a hospital supervision, I have no desire to do much more, nor can more be done.

The stretcher bearers and their officers and the bugler,

having at nightfall sounded the "first aid" or "ambulance" call and let every one know where they are, gradually return to the dressing-station and at once come on duty in these open-air wards. If bread and meat can be obtained, the wounded should have their food at once, so as to fortify them against the cold night air. Every shelter available on the field should be utilized, and the great-coats and garments of the dead collected to cover the living wounded, care being taken that no robbery of the dead occurs by the company men, as it is a tremendous temptation to secure trophies or valuables on the battle-field. If the wounded get morphia injected, they may all sleep tranquilly, and be far better off than wandering about in an ambulance waggon looking for a field hospital the location of which nobody knows.

It must be remembered that battles are not fought out with the accuracy of a diagram on paper. Can the wounded get back to the field hospital from the dressing-station? Very often they cannot. Roads may be crowded with waggons or troops. The enemy may be out in straggling parties. Constantly night comes on and stops all traffic. And finally—and most important of all—nobody can tell where the field hospital is nor where it can be pitched, nor will it be known if the ground where it can be pitched will be held.

The field hospitals may all be packed in waggons and on the move in the column on the crowded roads behind the army, and it is absolutely impossible to say where or when circumstances may force the hospital to be pitched, and it is advisable to wait for a few hours to see how things tend. If it be evening, wait until the morning before sending any man back, unless it be known quite well where the permanent post will be formed, and then if the future military post will be near the battle-field, let the hospital march to the wounded, not the wounded to the hospital.

This is the true solution. In fact, it must always be borne

in mind that, if it be so easy to send the wounded back to the hospitals, it must also be very easy for the field hospital to come to the actual battle-field itself, and, if so, it should come and itself form the "dressing-station," setting free the whole *personnel* of the Bearer Company for collecting duty. If this solution is possible—and it often is possible—it is the true one to adopt.

In such case, no dressing-station whatever is pitched by the Bearer Company, but the "collecting-station" becomes the true centre of field work for the Bearer Company, the ambulance waggons working back on the field hospital, which should be itself organized as a "dressing-station" and field hospital in one place. But even here no tents should be pitched nor any permanent work done, and only blankets and tarpaulins used to cover the wounded for the first night, always remembering how uncertain must be the location of the future military post.

I have seen a painful controversy on the battle-field between senior staff officers of the medical service as to where the field hospital was to be found after an action. Nobody knew, nor could know. It was somewhere within ten miles on a dangerous road, but to send wounded back to it was impracticable.

It solved the difficulty itself by marching up to the field of action some twenty-four hours after the fight, but nobody knew in the meantime where it was. It was simply jammed up on the communications line with convoys of stores.

Certainly every field hospital commander should endeavour to open up communications with the battle-field as soon as possible by sending on an active young officer to report where the field hospital was, and to carry back orders from the principal medical officer to the chief of the hospital as to future action. This state of uncertainty as to the whereabouts of the field hospitals prevents any immediate action

being taken to clear the dressing-stations, as it would be fatal to the wounded to be caught on some crowded road and be jammed up unable to move in any direction. Let us once be certain that on the battle-field itself the wounded are well cared for, as they can be, and all anxiety for their welfare can be suspended for twelve hours. Twelve hours in any active campaign clears up many doubtful points. The one thing that should be certain is that, once in charge of the Bearer Company on the field, no possible mischance can happen to the wounded man. If the officers and men of the Bearer Company are worth their salt, no mischance can happen. Placing the wounded close together, and covering them with blankets and waterproof sheets, will probably allow them to pass a very good night. Probably in the early morning the field hospital may march to the very spot where the wounded are collected.

This is the happiest solution for dealing with any battle-field collection of wounded. The golden rule for all commanders of Bearer Companies is, the moment your dressing-station becomes filled with wounded, and cannot, owing to emergencies, be evacuated, proceed at once to organize it as a temporary open-air field hospital, allotting medical officers, nurses, wardmasters, compounders, cooks, water-men, exactly as if it was a permanent hospital in the open air. The stretcher bearers falling back on the dressing-station provide the men. Take care that due conservancy arrangements are at once established, and all excreta and dressings carried away and buried or burnt. Remove the dead apart, and cover them, and, if possible, after due identification, have them buried by a fatigue party before or at the dawn.

Stop at once all feverish, excited action such as the dressing-station work must often be, and set to work with the quiet, calm routine and night watch of a military peace hospital. Compile at once lists of the wounded and the dead, and place

a list or a copy of it, at some distance away from the wounded, where correspondents, comrades, and officers can see it without disturbing the wounded. Mark out your dressing-station hospital by any possible demarcation, and post sentries round it to keep out disturbers and stragglers, and to keep in excited wounded men wanting to get to their regiments to show their wounds. If any regimental men have come in to the dressing-station as escorts with wounded, utilize them on duty for the night, and in the early morning return them, and report them to their corps as being with you, to prevent mistakes; but, as a rule, the soldiers that hang about a dressing-station are not keen for fighting, and are on the whole contemptible men. The servants of wounded officers remain with their masters, and, as a rule, it is better to keep the wounded officers well apart from the wounded men.

The slightly wounded officers and men are certain to give trouble, and will try and get away from the dressing-stations, but all such indiscipline should be at once repressed, and every departure stopped until next morning. If officers and men are sufficiently injured to come back to the dressing-station and to leave the fighting line, they should not be encouraged to immediately try and rejoin their battalions, where wine or liquors given by ill-advised friends may often do mischief. At the earliest dawn next morning, having learned the whereabouts of the field hospital, hasten on the transmission of the wounded to it, or urge forward the hospital to your extemporized ambulance on the field.

Press into the temporary service of the company all transport carts or animals in any way available, and carry off the wounded.

A good proportion of the wounded may be able to march some little distance, and so free your waggons.

Take advantage of the stores in the field hospital to replenish your supply of bandages and splints, &c., leaving it to the

field hospital—which, of course, will be immobile for two or three days or more—to replenish itself from stores farther in the rear.

If one ever bears in mind that the really efficient Bearer Company is, and should be, a highly mobile and lightly equipped hospital on the battle-field, it will be easy to foresee its wants and requirements.

What becomes of the Bearer Company after the Field is cleared?—As soon as the battle-field is cleared of all wounded, including the wounded enemy, if any, and that all are duly handed over to the field hospitals, what do the Bearer Companies do? The regulations state that they are to rendezvous at field hospitals—that is to say, at a distance perhaps of two miles or more from the brigade or division to which they belong.

This would not do in war service. The Bearer Companies, if posted to brigades or divisions, are *pro tem.* part of those divisions, and should encamp with them, and, after any action, at once return to their divisions, and be ready to march forward in any advance made by the troops. This seems to me a very essential point in Bearer Company routine in war time. On return to your division, report your arrival and return to the principal medical officer, sending in also accurate returns by name and number of all wounded and killed, as far as came under your cognizance, keeping copies as far as possible.

Forward also to the principal medical officer of the division, for communication to the general of the division, a report of your actions during the day, bringing to notice any of your officers and men who have done exemplary service, so that they may, if deemed suitable, be mentioned in despatches by the military divisional commander.

The principal medical officer himself embodies your report in his own report to the divisional commander, and a copy is sent to the superior medical authorities, and goes

to the compilation of the medical history of the war in which you may be serving.

If the duty has been well done, no unit in that army, be it what it may, will have done more exhausting or more honourable duty than the Bearer Company.

CHAPTER VII.

WITH CAVALRY IN THE FIELD; OR, THE AMBULANCE ARRANGEMENTS OF THE CAVALRY BRIGADE IN WAR.

THE ambulance arrangements of the English cavalry for war are practically non-existent. Any really extended cavalry fighting would soon display this to all the world. They were very bad in Egypt in 1882, and no real improvement has been made since.

To attach an infantry dismounted Bearer Company to a cavalry brigade is singularly unfair on both the Bearer Company and the cavalry.

The company become overworked from trying to keep up with the cavalry, and eventually get left behind to be cut up at the enemy's pleasure, and the cavalry, trusting for aid to dismounted ambulance men, find themselves left helpless when any emergency occurs. Yet it is possible, with very little forethought, to at any rate mitigate in a very great degree this wretched condition of affairs.

Happily, we are not completely in the dark as to what is needed in this matter, as a very important minute by the late Major-general Sir Herbert Stewart, K.C.B., exists on the subject. It is to be found at p. 703, appendix No. 39, of the Report on the hospitals in Egypt in 1882 by Lord Morley's Committee. It is called a "Report on the Hospital Requirements of Cavalry in the Field."

Sir Herbert Stewart completely condemns the existing infantry Bearer Company as unfit to act with cavalry, and states that a mounted Bearer Company is needed, and gives a *résumé* of a company organized to meet emergencies on the spot during the campaign of 1882 as indicating the lines of the future definitely organized company for the cavalry. He also points out the need of a principal medical officer specially for the cavalry brigade.

This latter request has since then been granted, and a principal medical officer is now allowed for the brigade.

But, before going into the subject of the cavalry Bearer Company, we must first study the regimental cavalry aid, and here we at once come to a condition of affairs quite unsuitable for war. It is impossible to allow any cavalry regiment to go into the field with a single medical officer; at least two medical officers are needed for each cavalry regiment. This is indispensably necessary if success is to crown our efforts with cavalry in war.

The service of cavalry is so exhausting, so scattered, so rapid, that one medical officer per regiment is quite insufficient.

We need, then, as the very first step, a second medical officer with each cavalry regiment, posted to it on mobilization, and remaining with it during the whole campaign. These officers need, as their regimental aid, a N.Com. as a kind of hospital sergeant, and at least one orderly from each squadron as an aid in the field. He also needs at least one man per squadron leading a horse with cacolets as an attempt at regimental aid corresponding to the stretcher bearers of infantry regiments. This would give the two medical officers a party of one N.Com. and eight men for their regimental help, and it is essentially necessary that they have it. The work of cavalry is so scattered that it will be impossible to provide for them by any moderately sized Bearer Company alone.

Every regiment also needs a very light ambulance cart

capable of carrying four men or so—very light indeed, and like a spring van.

For the Bearer Company with cavalry we would diminish the ordinary Bearer Company by one-half the stretcher bearers, and reduce the ambulance waggons to eight per company, and keep the tip-carts at eight also. The sergeant-major, quartermaster-sergeant, and bugler would be mounted, and would also be four sergeants, four corporals, and sixteen orderlies as attendants and assistants. Two cooks would be needed for the wounded and two for the company itself; eight ambulance waggon orderlies would be needed, and at least eight orderlies leading, and in part riding on, sixteen cacolet horses able to carry twenty-four wounded and the orderlies in addition.

This would allow the cavalry brigade to carry about a good proportion of wounded, but, as the cavalry operate over a very large sphere of action, a fair provision of transport is needed.

The cavalry Bearer Company would then stand thus, as regards subordinate staff:—

Men.		Horses.
1	Sergeant-major (mounted)	1
1	Quartermaster-sergeant (mounted)	1
1	Bugler (mounted)	1
4	Sergeants do.	4
4	Corporals do.	4
16	Privates do.	16
	Ambulance waggons (8)	16
	Tip-carts (8)	16
	Water-cart (1)	2
2	Cooks (for sick)	—
2	Company cooks	—
8	Waggon orderlies	—
8	Cacolet orderlies	—
	Cacolet horses	16
1	Water-man	—
8	Tip-cart orderlies	—
56		77

Batmen as servants in addition.

Sir Herbert Stewart points out that the cacolets might be made of a more comfortable character, and larger, as they are carried by horses and not mules.

No reason whatever exists why we should tie ourselves down to mules for cacolet work on level ground in war time. Cacolets came from mountain countries, but it is not needful to use mules when in the plains.

As to the number of medical officers with a cavalry Bearer Company, probably four officers would be sufficient, with a quartermaster, as much of the field work of cavalry is different from infantry, and the same arrangements of collecting-station and bearers are impossible. Everything has to be done on the move; and rapid advancing, rapid extending, and equally rapid retiring will be the rule.

No pitched battle with cavalry will be possible.

The ambulance waggons and the tip-carts should be particularly light, and different from the ponderous ambulance carriages now used by the ordinary Bearer Companies.

The aim of the cavalry Bearer Company should be to throw the sick and wounded rapidly into the charge of the collecting-station or dressing-station of the Bearer Company or field hospital of the nearest infantry division, and rapidly rejoin its brigade. Hence, medical officers and the sergeants and men should be active horsemen and fit for active work in the field.

Any attempt to hand over cavalry wounded to a special cavalry field hospital is of course out of the question, and the very existence of a cavalry field hospital even in name is to be deprecated while cavalry are engaged in active operations. When the cavalry halt after or before a campaign or during a long cessation of hostilities, and it becomes a more or less immobile body, a field hospital may then perhaps be attached to it as a matter of convenience, but in war a

cavalry field hospital is an impossibility, and would be a grave mistake even if possible.

What the cavalry need is good ambulance aid well mounted, trained, and disciplined, and able to co-operate with this highly mobile force in the wide sphere of work required of cavalry in modern war.

The need of a strong regimental detachment of surgeons and orderlies is highly essential when we remember the wear and tear of the cavalry and the many risks that attend a single surgeon perpetually on outpost or reconnaissance duty with so hard worked a body.

With cavalry the use of hand-signalling size red-cross flags is very useful, as it is very difficult to tell at a distance where the medical men are to be found.

If each surgeon caused his men to carry a small signalling flag with a red-cross on it, it would be a great guide to all seeking him. Of course as a protection from the enemy, either with cavalry, or infantry, or artillery, the red cross is entirely valueless, and is only useful as a distinctive mark of where medical aid is to be found.

A long-range rifle bullet knows no distinction in its victims, and slays with perfect impartiality all who come in its path.

It has been suggested by Deputy-Surgeon-General McDowel, of the Medical Staff, that the horses used for mounting bandsmen in peace should be handed over for regimental ambulance work in war, and the proposal seems a very valuable one.

CHAPTER VIII.

"THE SICK CONVOY;" OR, THE DUTY OF THE BEARER COMPANY ON THE COMMUNICATIONS LINE, INCLUDING BRIEF REMARKS ON RAILWAY AMBULANCE TRAINS.

So far as I can read the Medical Regulations, I can find no definite arrangements made in them for a Bearer Company for the convoy duty along the communications line—that is to say, the conveyance of the sick and wounded backward from the front to the base of operations.

Yet it may safely be said that this work is all-important, and is one of the heaviest tasks that will fall to the lot of the medical corps in the field.

Let us see what, then, is needed for the due carrying out of this important work, apparently as yet unprovided for in our war scheme.

We need here not so much large numbers of men and officers as a fair supply of transport told off specially for this work.

The *personnel* of a single Bearer Company such as we have proposed would probably go a very great way towards meeting our needs for this work, but the ambulance waggons should be very largely increased, probably to three times the amount in any ordinary company.

It would thus be possible to divide the Bearer Company told off for the communications line into three sections, each with two medical officers, and one-third of the company with each section.

This communications Bearer Company should be immediately under the command of the surgeon-general of the line of communications, and be quite apart from the Bearer Companies in the front or the Bearer Company suggested by me as needful for a "depot" at the base of operations.

But such a company as I suggest will not be able, even with this carriage, to achieve very much work unless it is also largely supplemented by auxiliary and local transport of various kinds. It is, however, always to be remembered that auxiliary transport needs in its every group or section a central disciplined cadre to keep it in working form. This seems often to be forgotten by the Medical Department.

So long as the army remains concentrated about the base of operations, the work of this company may be any ordinary transport work at the base. For it is absurd to think that medical transport should not be utilized for any purpose needed by the army. The army is one in its every part. All officers and all men are for its general service; but the medical corps should be kept as far as possible to medical work save only on emergencies; beyond this they should share in every duty.

As the line of communications begins to lengthen, the sections of the Bearer Company of the communications move out on the road, and take over the sick and wounded needed to be conveyed to the base hospitals.

If any action is expected, the principal medical officer pushes up not only all the sections of the company to the immediate rear of the fighting front, but also sends up every possible carriage he can lay hands on to carry the wounded towards the base.

To aid further in this work, probably all commissariat transport waggons with the army should carry a couple of folded-up stretchers for wounded, and the means of putting up temporary side-seats in all waggons should exist. Then the regular ambulance waggons would be kept for dangerous cases, and all lighter cases placed on the makeshift waggons.

In freeing the front hospitals it is of the greatest importance to carry as many wounded as possible backward, even twenty or thirty miles from the front, to some stationary

hospital, as the pressure on the front must always be very trying, and the expenditure of dressings and drugs on wounded men becomes very heavy.

Instead, therefore, of sending small convoys back the whole way to the base, it is, I think, advisable after any action to rapidly clear the extreme front and to collect the wounded twenty or thirty miles behind the army, leaving it to future work to carry them to the extreme base. Of course here, as in all cases, local conditions must immensely modify all rules and regulations.

A few general principles may be laid down as to convoys.

Arrange everything the Night before Marching.—Go to the field hospital commander the night before the convoy starts, and warn him exactly as to what is wanted—the men's kits to be packed, dressings and drugs for the day to be issued, food for the day cooked and packed ready for carriage, any complaints of the sick inquired into, all information to their regiments duly sent, all documents and papers duly filled in, all special instructions as to the care of special cases written out and pinned upon the patient for guidance of the convoy staff.

It is to my mind very heavy work starting off a "sick convoy," as officers often fail to arrange everything the night before.

It is possible very often to carry or convoy many sick with the waggons, either walking or part walking with the convoy. Men trivially wounded will often be able to march some distance, and it is to be remembered, particularly at the beginning of a campaign, that all wounded think they should be carried—this, however, is an erroneous idea.

It is not possible in war, and many may have to march. If they march, they cause much trouble by straggling and by attempts at insubordination or drunkenness. The weak points of all our sick convoys are their intense tendency to

straggle and to spread out over miles of the road. This is a fatal error, and no commander of a sick convoy should ever allow it. The convoy should be kept well "locked up," no spaces, no straggling; and frequent halts should be made to rest the wounded, to allow dressings to be replaced, and food and stimulants given.

Carry plenty of cooked beef-tea with the convoy, and at the midday halt have it warmed for the sick; it will save many lives.

Always halt near some water, and let the animals and men have their fill of it.

Draw up the convoy for its halts off the road some twenty or thirty yards to the windward, so as to allow troops or transport to pass freely on the road to the front without delay, or inconvenience to the sick from dust.

Cause the medical officers of the sections to march with their sections, and tell off the medical staff corps men to special groups of patients, with orders not to leave them, but to visit them constantly.

See that water-bottles are kept filled by the orderlies for the use of the sick.

Telegraph, or signal, or send on a messenger to the next camp or post to warn the officer there of the time of arrival and number of the convoy, and warn him to have soup ready for all patients, and bread also.

The officer in senior medical command of the convoy should keep the whole convoy in touch by constantly riding along the line. Most convoys give much trouble by their straggling.

Tell off special men to care for the kits of the sick or wounded. They constantly get lost, or men state that certain articles were lost which probably never were in the kits at all.

Punish with rigour all drunkenness or slackness of the

medical corps on the road, always remembering how thoroughly good should be the discipline of a corps charged with the care of sick.

If the convoy pitches its own camp, then, when halting, start at once the routine of the field hospital, causing the officers and men to visit the temporary hospital camp with the same exactness as in any ordinary hospital.

Confine all officers and all men to camp, unless leave be given in each case.

Keep all soldiers out of the convoy camp unless with passes, and be always on guard against liquor being introduced.

The duty of the convoy staff ends when the sick are handed over to the officer in medical charge of the field hospital or base hospital, as the convoy staff have no responsibility beyond the giving over of the sick and wounded to the hospitals.

Wounded and sick officers often give much trouble, and should be made fully acquainted with the orders for the convoy, as to time of starting and such like. Every Continental army, recognizing this, gives to the medical officers in charge of the sick and convalescent disciplinary punishing powers over sick men. Fines would be very suitable; but no doubt some control is needed over those often troublesome people—the convalescents or trivially wounded cases in war time.

The Working of Ambulance Railway Trains.—It may be needful in our future wars to have to work ambulance railway trains. A very full description of the Austrian ambulance trains, designed by Baron Mundy for the Austrian (Bohemian) branch of the Order of Malta, may be found in the "Beschreibung der Sanitats Zuge das Souveranen Malteser Ritter Ordens G. v. B. durch Baron Mundy" (Wien: L. W. Seidel & Sohn, 1882). These ambulance trains carry about 100 sick or wounded, ten patients being placed in

each carriage. They are made on the principle of the Pullman or American railway cars, with a passage down the centre, from engine to guard's van in rear.

The train also contains a specially built cooking-carriage, a dining-car, a regularly fitted dispensary-car, a specially fitted saloon carriage for the doctors and staff, and a store waggon for eatables, &c.

These ambulance trains would require to be manned by a division of the communications Bearer Company, and should be considered practically to be field hospitals on wheels. The same routine of visiting, orderly officer, wardmaster, and orderlies on duty, as in the one, is also needed in the other, and careful watching is needed to prevent drinking by patients or attendants at the railway stations.

The carriages should of course communicate with each other throughout, and all should be labelled with their special purpose, as dispensary, kitchen, office, store, &c. Take care the store-room carriage is nearest the officers' carriage, and that it is not broken into at night in pursuit of liquor, the curse of the English soldier in the field.

All officers and men, whether staff or patients, are to be confined to the train, and not allowed to leave it without permission. Latrine accommodation should exist in all carriages.

Attend carefully to the cleanliness and neatness of the nursing orderlies as far as possible, always remembering that discipline is aided by the personal neatness of the soldier. Arrange always for a night relief of the orderlies on duty.

A carriage is also needed for the orderlies; forty men are needed for attendants on 100 patients. The compounders and clerk may live in the dispensary carriage. The cooks and their fatigue men live in the kitchen carriage. The sergeant-major and quartermaster-sergeant can live in the store carriage. The bugler should also be near them.

The orderlies not on duty alone remain in the orderlies' carriage, and should be at rest, or asleep, if not for night duty.

Telegrams would of course be freely used to warn the fatigue parties to be ready at the place of arrival. It is a heavy duty taking crowds of wounded men out of a train and loading them into waggons. The Bearer Company at the medical staff depot at the base, or fatigue parties from some regiment near the station, should do this duty, which is very wearying and heavy.

The trains should be kept ready made up, and should return with stores or troops to the front.

CHAPTER IX.

DUTIES OF THE BEARER COMPANY ACTING AS "MEDICAL STAFF CORPS DEPOT" AT THE BASE.

To ensure the successful working of the medical corps in the field it is absolutely essential to increase the medical department at the base of operations by one Bearer Company complete to act as medical transport in the base, and to form a definite depot and centre for the medical corps in the field, for which, at present, no reserve or depot exists. The officer commanding the Bearer Company told off for this important duty, as yet unprovided for in our regulations, should be a very healthy, strong, energetic man, as his work will be continuous and exhausting. He will have to relieve the existing base principal medical officer of much executive work, and should consider himself in every way the helper and the servant of the medical service landing and serving in the campaign.

He should be a strict disciplinarian, and well able to hold in

check the N.Coms. and men of the medical staff corps in his command, always remembering that the base of operations of an army in the field is a place to which all ruffianism gravitates, and where drink and dissipation may greatly exist. He should therefore keep his officers and men well together, and by continuous work and unceasing surveillance prevent irregularities.

His principal duty at first will be to act as a fatigue party in aiding in the disembarkation of medical stores and equipment, placing all such articles in his own camp, in which should be the medical stores depot, and the medical depot at the base.

If the base hospital is near the port, and easily within distance of the town and piers, he can pitch his camp near to, but entirely independent of, the base hospital, but he should keep near the port and the piers, and be as central as possible.

He should open a medical transport and inquiry office at the pier where the sick embark, and also at the railway terminus where the sick or wounded from the front arrive. A permanent detachment of a N.Com. and four men should occupy these offices, and they should keep the red-cross flag flying, and have a large signboard telling the function of the office. Fixed hours for removing the sick to the hospital ship should be named after consultation with all concerned, and the returning boats should carry the discharged convalescents to the shore.

The greatest attention and care should be given to the taking over the wounded at the railway and handing them over to the base hospital staff. Hot drinks of soup should be ready for the wounded as they arrive, and a cook should be one of the detachment at the train terminus.

The officer commanding should tell off one officer as his adjutant, to care for the depot office work and to supervise

the orderly-room and the custody of the documents of the whole of the medical staff corps in the field.

The other officers act in various capacities, superintending the depot and its duties.

The officer commanding the depot would free the base principal medical officer from all responsibility about the clothing and accounts of the medical staff corps, having a regular trained paymaster, as the attached officer for all financial duties and freeing the quartermasters for other work.

The quartermaster should be in charge of the stores, &c., of the medical department, and of the clothing of the medical staff corps in the field.

The company commander should take into the depot, and care for, all officers and men of the medical corps arriving from England, and carefully house them and aid them in every way. Their surplus kits should be packed away in a store under the depot quartermaster.

A scratch mess for the officers should be started, and all officers arriving or departing from the base carefully assisted in every way.

Orderlies and fatigue parties should be freely supplied for all medical duties at the base, and all sick of the corps returning to the base should be replaced in their units by the best and most trustworthy orderlies, always keeping the drunken or careless or ignorant at the coarse, heavier duties at the base.

Military police to look after the discipline of the medical corps should be supplied from this company, and patrols should visit the town, arresting all medical corps men who have not passes.

This company receives all medical staff corps men arriving from ships, and provides detachments for all ships returning to England with troops. If medical staff corps men are

discharged from hospital, they can be attached here until recovery is complete.

This depot should supply servants to all medical officers whose servants go sick during the campaign.

The greatest care should be taken as to the letters and parcels of the officers and men of the medical corps, and they should be forwarded rapidly to their addresses.

Great complaints are made on this head in war time.

The officer who, in our future wars, is nominated to the post of medical depot commandant can distinctly "create a part" if he desire to do so. He should aid in every way the sanitary police of the base by giving fatigue parties and inspectors.

CHAPTER X.

NATIVE AUXILIARY AMBULANCE TRANSPORT.

It may frequently happen in our tropical wars that a large body of native auxiliary transport men may be attached to the English Bearer Company for duty.

This attachment practically turns the English soldiers of the company into the position of supervisors, dressers, and instructors, and throws on the natives the absolute carrying duties, which are not possible to Europeans in warm climates.

The first step in any such attachment of natives is to utilize the two half companies as cadres to which to attach the natives. This at once gives two units in place of one, and, if the half companies be again subdivided, four units can be developed.

It is highly advisable to do this, and to try and develop some rivalry and *esprit de corps* in the sections.

Discipline.—The curse of all native auxiliaries—and Indian doolie bearers are no exception—is their want of accurate discipline.

You order a parade at a certain hour, and the men are not ready. It needs, therefore, extraordinary personal efforts to make such units fit for war work.

The medical service has ever been handicapped by this system of having undisciplined subordinates given to it in the field, and that, too, to perform duties under fire, or moving in the presence of an enemy, or caring for sick people who need intelligent handling.

No other body in the army seem to be so handicapped as we are in this respect, and I think we are ourselves largely to blame in the matter. We have not looked ahead enough, nor educated the country to what our real war needs are. The first duty, then, in dealing with native auxiliaries is to establish discipline. They should be taught to fall in at certain times, and to obey their headmen.

The most vigorous and intelligent amongst them should be appointed as sergeants or corporals, and their authority upheld as far as possible.

The men should be made to salute their officers, the first great lesson in discipline in all organizations. Punishments, like extra parades, detention at the guard tent, walking up and down as a defaulter, are very often needed at first until order is developed.

Medical Inspection.—Carefully and personally inspect the fitness of the men to be given to you, and absolutely refuse all men physically weak or incapable. I have seen wretched men, old, decrepid and weakly, sent to war as bearers of the sick. Nevertheless, it is a duty requiring good physique and personal strength.

Drills.—Make the men fall in in the units in which they work, and keep the same teams together. Doolie bearers working in sixes fall in best in columns of sixes.

Each headman calls the roll of his party, and appoints an assistant headman or corporal in each team. He, although working as a bearer, acts as headman or chief in the absence of the senior. A regular drill for doolie bearers is highly desirable. It is pitiful to think how little has been done in India to develop the efficiency of these important men. Besides being undisciplined, they regularly haul a sick man in or out of a doolie or dandie.

Dandie Bearers work in fours, and should parade in a column of fours.

Kits.—A haversack is needed by all sick followers. A water-bottle is also needed. A blanket is also necessary. A distinctive turban is needed. A distinctive waistcloth or girdle is needed. Every man should have a clearly defined metal number hung round his neck.

For Indians, one lotah or water-vessel, one iron plate for cooking chupatties, and one brass dish for rice are the only cooking vessels to be allowed.

The lotah should be carried on the body by a cord, and the cooking plate and eating dish in the haversack if possible.

I have in Afghanistan at times caused the doolie bearers to disgorge hundreds of pounds weight of pots, pans, extra food, loot, and extra clothing.

Order a kit inspection a hundred yards from your camp, and, when all are on parade, send some trustworthy men to clear out the tents and pile all the contents in a heap in the centre of your camp. Let all this be made away with, or sold, or somehow got rid of.

In another fortnight another accumulation will have taken place. It breaks down the transport very much to allow such accumulations.

Cooking Places and Meal Hours.—Fix definite cooking places, allowing each Indian four feet square for his cooking place. Fix definite hours for food and meals, and let nothing change them, if possible. This conduces much to men's comfort. If men cook all over the place, they can never be found.

Silence at Night.—The moment "last post" sounds, absolute and complete silence is needed from these men, who often go on talking all through the night, if allowed, disturbing every one.

Interpreters.—Obtain, if possible, interpreters for the company. Constant misunderstandings arise from want of knowledge of the language.

Water Supply.—The system of sending 100 doolie bearers, all to act as carriers, is wretched. At least four extra men per cent are needed as water-carriers. No allowance of this kind is made, and it causes great inconvenience. These water-carriers supply water to the bearers and the sick on the march.

Quartermaster-sergeant.—A sergeant is needed with each 100 men as a kind of quartermaster-sergeant, to draw the men's rations, &c. There is the greatest want of organization in all these matters.

Fatigue Work.—Keep the bearers constantly employed at various camp fatigues if no marching dates are ordered.

Conservancy.—The moment camp is reached, tell off at least three men per 100 as conservancy fatigue to dig latrines for the men. Mark the place by a flag or tree, and punish rigorously all not using the place. This is very important.

Bathing Parades and Clothes Washing.—Do not forget these important matters. Vermin are the curse of an army in the field, and natives are, of course, very liable to such a condition. The only remedy is frequent washing.

Instruction.—Doolie bearers soon pick up the routine of hospital work if carefully lectured by those speaking their

language. I have seen excellent attendants developed out of willing men who were ignorant of everything a month before.

Medals and Rewards.—It seems to me very regretable and unfair that medals for campaigns are not given to these devoted men.

I hope and trust that a juster feeling will one day exist on this head, and that war medals will be given to all men acting as sick bearers in the field. Few men earn them better.

Sunday Rest.—Save all these men from Sunday fatigues when possible. The need of an off-day for rest, repairing clothes, letter writing, is essential.

Surplus Men.—Four or five per cent. of spare bearers are always needed with any force. The existing system of allotting only sufficient men to carry the absolute number of doolies leads to great confusion and trouble.

Discipline and Training in India.—The want of disciplined training in the permanent Indian doolie bearers is quite unpardonable. They should be drilled in company and battalion drill exactly as infantry soldiers, and should be organized in companies and battalions in peace. These companies should be the cadres for large auxiliary help in war time, and they would discipline and leaven the new levies. In every large Indian garrison these permanent men should be drilled at ambulance work in the cold season—say, after the punkah-pulling work is over. It is unpardonable to allow them to go to war so unorganized as they are to-day.

It entails heavy work on all who have to deal with them.

CONCLUSION.

In the foregoing pages I have attempted to deal in a very elementary manner with the Bearer Company work in war. I look upon these pages merely as a contribution to the subject which may enable better men by-and-by to deal more fully with the whole question.

We are to-day passing through the constructive stage of the organization of medical aid to armies in the field, and all contributions to that question should be welcomed.

The pity is that we have, as a corps, no journal where such subjects can be discussed and written upon and contributions from every source collected together. I regard the medical corps on this as on many questions simply in the first evolutionary state. It will take a generation to carry out organization to its true standpoint of efficiency. The education of the public opinion of ourselves, and of the English people at large seems to be to-day our most urgent need.

It is as a contribution to that end I have written these pages.

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ON CERTAIN REFORMS IN THE MEDICAL STAFF.

BY

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P.M.O. EGYPTIAN ARMY.

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ON CERTAIN REFORMS IN THE MEDICAL STAFF.

THE Introduction of a New Warrant, affecting the Medical Department of the Army, has always been preceded by a strong feeling within the Department, that certain improvements in the conditions of service had become necessary; which, re-acting on the public and the Medical Schools, brought about the desired changes.

There is now amongst the Officers of the Medical Staff, a gradually increasing spirit of discontent at the scant justice accorded to their service—viewing the advance made in all other branches of the Service within the last few years, which has resulted in the Medical Department being left far behind the times. As such a feeling of discontent must impair the efficiency of the Service, it may be well to consider what are the existing grievances under the following headings:—

I. Opportunities for study and improvement after entering the Service.
II. Amount of home-service.
III. Honours and Rewards.
IV. Rank.

I.

The importance of Medical Officers keeping abreast of the times cannot be over-rated. No body of Officers deserves more the name scientific, yet to them alone are denied the opportunities for improving their professional knowledge after entering the Service, which are so freely offered to the other scientific branches of the Service and to the Army at large. For the latter, Garrison Classes and a two years' course of higher education at the Staff College, open to all with ability to pass the necessary examination, are provided. Leave of absence is granted to study foreign languages, and opportunities are offered for observing the system of foreign armies by attendance at foreign manœuvres and campaigns. While for the Scientific Corps, Royal Engineers and Royal Artillery, there are advanced classes in their special subjects of knowledge.

For the Medical Officer alone, the most scientific of all and most in need of post-graduate courses of instruction, no such provision is made. Even the four months' course at Netley, once granted to Medical Officers before their examination for promotion, has been discontinued, though the examination itself has been re-instituted, and a further one for promotion to Brigade Surgeon added.

Under existing Regulations, a Surgeon is put to con-

siderable expense to enable him to comply with the regulations for his examination for promotion to Surgeon Major, while no special leave is granted him for the course of study required of him before presenting himself for examination. This weighs heavily on the Junior Officers of the Service.

The examination for promotion to Brigade Surgeon is absolutely unnecessary. The fitness or otherwise of Officers for promotion, after spending 20 to 25 years in the Service, should by that time be known at Head Quarters. No Lieutenant-Colonel in the other branches of the Service is called on to pass an examination for further promotion, why should the Medical Officer? Medical Officers who spend the greater portion of their service in out-of-the-way Stations abroad, must become rusty in their knowledge, and no one acknowledges this fact more than they themselves. They demand opportunities for further study and instruction, and are ironically informed, as was stated in the House, in reply to a question on the subject, that when at home (which means about two years in every seven), the authorities have no objection to their employing their two months' annual leave, granted when possible, in the furthering of their Medical knowledge. Compare this treatment with that accorded to the other branches of the Service, where the much longer period of privileged leave is not interfered with by any of the courses of instruction.

The War Office Committee on the Medical Department assembled after the Egyptian War in 1882, recognized the urgency of the above needs, and recommended that—

> "As many Army Surgeons as possible should at
> "some period of their career have opportunities of
> "visiting large Civil Hospitals, and thus keeping
> "themselves informed of the progress of Medical and
> "Surgical Science." (Para. 184).

Again—

> "That greater facilities should be given for special
> "courses of study in Civil and Military Hospitals in
> "London and Foreign Capitals."

These most valuable recommendations, as well as others, which if carried out, would have increased the efficiency of the Medical Service, have been totally disregarded, while some of the more distasteful, and possibly least necessary ones, have been acted on.

The necessity of Medical Officers being conversant with the Medical organisation of other armies cannot be disputed, yet the opportunities afforded by foreign manœuvres and campaigns are allowed to pass unheeded. No greater field for acquiring the knowledge so indispensable to a good Medical Officer exists than in following an army through one of the great campaigns of modern times, yet how many Medical Officers have been given this opportunity?

What is required, and what the Government will grant if it desires an efficient service, is :—

1st. A special course of instruction in a London Hospital, through which every Medical Officer should pass between his fifth and twelfth year's service.

2nd. A further course between the fifteenth and twentieth year of service.

3rd. Leave of absence on full pay and allowances to study a foreign language abroad for six months, to be combined with study at one of the great foreign Medical Schools; an examination in the language to be passed at the close of the six months. Should qualifying marks not be obtained, some penalty, such as stoppage of allowances, to be exacted.

4th. Medical Officers conversant with foreign languages to be detailed to represent the Medical Staff at the Manœuvres of Foreign Armies, to report on their Medical Organisation, and to be attached to Foreign Ambulances in time of war.

II.

The amount of home service has been so diminished that the Medical Staff is rapidly becoming a foreign service. In the present day, the most that can be expected is one and a-half to two years' home service,

followed by a tour of foreign service of from three to five years, generally the latter. This is in time of peace. In time of war, which is of constant recurrence, the period of home service is further lessened, so that it is now common to find that in fifteen years' service about three have been passed at home. In February, 1885, 73 per cent. of the Medical Staff were on foreign service.

The lengthened periods of foreign service tend to undermine the constitution and break down the health of all but the most robust men, while none of the compensating advantages that appertain to a recognized foreign service, such as the Indian Medical, are accorded to the so-called Home Service. Permanently injured in health by the vicissitudes and exposures of active service, epidemics, and prolonged foreign service, the Medical Officer who retires even at 20 years' service finds himself unable physically to compete with his juniors in age in the race of life.

Appointments hitherto filled by Medical Officers serving at home, are now given to retired Medical Officers, who, in many cases with administrative rank, are content to perform the duties of Junior Surgeons.

The Medical Staff is under-officered. When war breaks out, a large proportion of the Medical Officers serving at home is required for active service, and the work has to be performed by civil practitioners, necessarily

ignorant of Military or departmental routine. It would be interesting to call for a return showing the number of civil practitioners employed at home, together with a report from General Officers and Principal Medical Officers of Districts, as to the working of the system.

A false idea of economy is at the root of this, and much that calls for reform in the Medical Service as at present organized.

The strength of the Medical Staff must be increased and economy should not be allowed to interfere with efficiency.

The appointments now filled by retired Medical Officers should be given to those on full pay—as used to be the case.

Every encouragement should be given to the employment of Medical Officers in appointments outside their immediate department, in which they would gain an experience which would be afterwards most valuable to their own service, and the periods for which they should be seconded should be the same as those for other Staff Officers. Many such appointments may in the future arise in connection with Colonial or other forces and they should be generously provided for.

III.

It must be accepted as an unpalatable fact that the profession of Arms will always be considered as superior to that of Medicine in the distribution of honours and rewards after a campaign; what the Medical Officers have at least the right to demand is, that they should be on a par with the other Departments of the Army in this respect, if not ahead of them, being the only so-called Non-combatant Officers of the Army, who, from the nature of their duties, are exposed to the same dangers as Combatant Officers.

In 1878 a War Office Committee was assembled to report on the causes which tended to prevent sufficient eligible candidates coming forward for the A.M.D. They presented their report in July, 1878, and the report was published in the form of a Blue Book. No report can be more interesting on all the questions considered, and more particularly in the subjects of Honours and Rewards. We find in para. 35 the following:—

> "Like many other men who do their duty under an "especial risk to life, Medical Officers appear to set "a high value on honorary distinctions. Complaint "as to the paucity of these distinctions is, doubtless, "a grievance somewhat of an intangible nature; but "honours have always formed one of the rewards to "be looked for in a National Service.

> "It can scarcely be hoped that the pecuniary "attractions of the Public Service will rival, except "perhaps quite at the commencement of the career, "those of Civil life.
>
> "*Honours and Distinctions must strike the balance.*
>
> "We, therefore, sympathise with the Medical "Officers in their complaint that honorary dis-"tinctions do not, as compared with other Corps, fall "sufficiently to their share."

Again, para. 37—

> "They (the Medical Officers) claim to be a scientific "Corps (administering nothing beyond their own "affairs and partaking of the nature of a combatant "position) rather than an administrative Department "of the Army. It is true they do not fight in offensive "War, but they maintain an incessant combat with "disease and death: they go under fire in battle "wherever combatants go—which other Departments "do not,—and they take their share of Indian Service, "which the Veterinary Department alone shares with "them.
>
> "The result is shown in the list of casualties. "The death rate of Medical Officers greatly exceeds "that of Combatant Officers. It is calculated by the "Actuaries that of 100 young men at 20 years of age "who respectively enter for Army Combatant Com-"missions and study for the Medical Department, the "following reach the later ages:—

	Combatant Officers.	Medical Officers.
"Start at age 20	1000	1000
"Live till „ 30	888	849
" „ „ 40	792	684
" „ „ 50	689	538
" „ „ 60	571	423"

Para. 38—

"The contention that Medical Officers are to be "considered with Combatant Officers is partly recog- "nized by their sons being allowed to be eligible for "Queen's Cadetships."

Para. 39—

"*On these grounds we think that the Medical Officers "show good cause why, in the matter of honours, they should "be associated with the Combatant rather than with the "Administrative Services;* and as Medical Officers "appear to attach great importance to some change "of title, we think it is a matter for consideration "whether they might not be styled 'Royal Army "Surgeons,' 'Royal Medical Staff,' or some other "appropriate designation."

The War Office Committee of 1883 also recommended that the Medical Department should be made a Royal Service.

The title "Royal Surgeons" would meet all the necessities of the case, and give universal satisfaction.

The present title, Medical Staff, is most unsatisfactory; it means nothing at all, and does not even show that a Surgeon is in the Army.

Again, para. 40—

"As regards precedence, we think that they "should not be ranked below any other Civil Depart- "ment of the Army."

Para. 41—

"We further recommend (as Lord Herbert's Com- "mission also did in 1858) that in regard to honours, "rewards, and good service pensions, the Medical "Department should be judged rather by the standard "for combatants than by that for non-combatants. "At present, judged by such a standard, they are far "below the combatant ranks in their enjoyment of the "honour of the Bath, the Star of India, and of St. "Michael and St. George.

"In total numbers of Officers, the Royal Engineers "do not equal the Medical Officers; but the appor- "tionment of Knighthood among Officers now on the "active list stands thus:—

	Royal Engineers.	Medical Staff.
"G.C.B.	2	—
"K.C.B.	6	2
"C.B.	19	8
"K.C.M.G.	1	—
"C.M.G.	3	—
"G.C.S.I.	1	—
"K.C.S.I.	1	—
"C.S.I.	2	—
"Totals	35	10."

What improvement has been made between 1878 and 1886 will be seen from the following—showing the Orders held

by the Royal Engineers and Medical Staff on the Active List in December, 1886:—

	Royal Engineers.	Medical Staff.
G.C.B.	3	—
K.C.B.	5	3
C.B.	12	10
G.C.M.G.	2	—
K.C.M.G.	2	—
C.M.G.	8	1
D.S.O.	—	2
Total	32	16

It will be observed that no Medical Officer has the highest grade of any Order—and that the recommendations of the Committee have produced but little result.

Para. 42.

"Further, we would recommend that as the "appointment of Queen's Aide-de-Camp promotes the "Officer appointed, *ipso facto*, to be Colonel in the "Army, so appointment as Honorary Physician and "Surgeon to Her Majesty should, *ipso facto*, raise the "Officer selected for the honour to the rank of Deputy "Surgeon-General, to be borne as supernumerary in "the rank until he would have been promoted to it in "the ordinary course.

"In considering this point, it is to be remembered "that a Queen's Aide-de-Camp has in that capacity "10s. 5d. a day (£190 2s. 1d. a year), without being "debarred from other Staff pay, whereas the Hon. "Physician and Surgeon has no extra pay as such."

Has this recommendation ever been acted on? There

is no case of a Brigade Surgeon appointed Q.H.S. or Q.H.P. and *ipso facto* becoming a Deputy Surgeon-General.

In the case of Queen's A.D.C. the Officer is almost invariably selected from the Lieutenant-Colonels of the Army, and receives with the honour of A.D.C. to the Queen promotion to the rank of Colonel and £190 2s. 1d. a year.

Further, on attaining the rank of Major-General, he ceases to be A.D.C. and makes room for another Officer to receive the distinction.

A similar rule should apply to Officers of the Medical Staff as regards the distinction of Q.H.P. or Q.H.S.

Officers should be selected for this distinction from the rank of Lieutenant-Colonel, and should, *ipso facto*, become Deputy Surgeon-General.

There is no reason that they should not receive the same pay as A.D.C. to the Queen, and on attaining the rank of Surgeon-General they should cease to be Q.H.P. or Q.H.S.

It is an anomaly that, as at present, retired Medical Officers should hold the distinction. Of the six Q.H.P.'s in the Medical Staff, but one, a Surgeon-General, is on the active list; of the six Q.H.S.'s, but one, the Director General, is on the active list.

At the close of the Egyptian War of 1882, an attack was made on the Medical Department, the injustice of which was clearly proved by the War Office Committee appointed to enquire into the alleged shortcomings, and by the appended minute of such an authority on the conduct of Medical work in time of War as Sir William MacCormac.

> "Decorations, Medjidiehs and Osmaniehs, were "showered on Combatant Officers, every Staff Officer "being given one. *Of between 80 and 90 Surgeons,* "*ranking as Captains, not one received a Decoration.* The "percentage given to the undermentioned Depart- "ments was approximately as follows:—
>
> "Ordnance Store, 57 per cent.
> "Commissariat, 27 ,,
> "Medical 7 ,,

It was known that the Medical Department was considered by the authorities to have done badly, and the officers, against whom, individually, no complaint was made, had to suffer.

When the injustice of the charges was proved, the reparation which might have been expected was not made.

In the Suakim Expedition of 1884, and the Nile Expedition, 1884 and 1885, the Medical Service was brilliantly administered, and received on all sides—from the Commander-in-Chief in Egypt, from the House of Commons, from the Press—unqualified praise, with what

result the following table shows, as regards the Nile Expedition:—

Departments.	Average Strength up Nile.	Numbr. mentnd. in Despatches.	Numbr. Promoted.	Numbr. Decorated.	Per Centage Mentioned.	Per Centage Promoted.	Per Centage Decorated.
Commissariat ...	29	8	4	—	27·6	13·8	—
Army Pay... ...	12	5	5	—	41·6	41·6	—
Ordnance Store..	10	14	3	—	40·0	30·0	—
Veterinary... ...	9	—	2	—	44·4	22·2	—
Army Chaplain...	9	4	4	—	44·4	44·4	—
Medical.....	101	13	8	1	12.8	7·9	0·9

As regards Suakim, the *Gazette* containing a long list of officers granted Decorations is conspicuous by the absence of the Medical Staff, the name of one Medical Officer only being included. The Supplemental *Gazette* of honours and rewards for the Soudan operations promotes four Commissariat Officers and but one Medical Officer, though the Medical Staff had four times the number of Officers in the field. The Commissariat Staff thoroughly earned a reward, so did the Medical; the one received it, the other did not.

Again, in the *Gazette* for Bechuanaland, the Commissariat Staff, Ordnance Staff, and Veterinary Department all have representatives promoted; the Medical Staff alone is omitted.

The system of Brevets in the Combatant Branch of the service, and the greater generosity in promotion shown to the other Departments of the Army, leave the Medical Officers far behind.

It is not uncommon in these days of rapid advancement by brevets to find Lieutenant-Colonels of 12 to 16 years' service. The Medical Officers, having no system of brevets, find themselves, after each campaign, passed over by Officers far their junior in rank and age.

It must be borne in mind that relative rank, or Army rank, obtained by brevet, carry with them substantial advantages which include retiring pensions, widows' and orphans' pensions, all allowances, choice and superiority of quarters on land, and cabins on board ship, scale of batta when granted for a campaign, and indirectly the class of honours and rewards which may be given after a campaign.

Why should all these be denied to the Medical Officer when there is no more difficulty in his receiving a brevet, than in the case of an Officer of the Royal Engineers, or Royal Artillery, who receive brevets while retaining their own places on their regimental list and performing the duties of their regimental rank?

Again, as regards some mark of distinction to the Medical Staff as a Corps, like the Royal Engineers or Royal Artillery. The case is ably stated by Surgeon-

Major Evatt, whose remarks, as follows, may be found in Appendix A, p. 31, of the report of the War Office Committee of 1878, as well as in his published pamphlet:—

"When a Regiment or Corps distinguishes itself in "a campaign, it is the custom of the Service that they "receive permission to place the name of the battle "or campaign upon their colours in appointments.

"By these ~~numerical~~ memorials esprit-de-corps is preserved "and tradition developed.

"When the Corps consists of a large body of "officers and men, some of whom must share in every "campaign, a more general honorary distinction is "given, such as 'Ubique' and 'Quo Fas et Gloria "'Ducunt' in the Artillery and Engineers, and 'Per "'Mare et Terram' in the Royal Marines.

"Corps also, as a reward, are made 'Royal,' or "'Queen's,' or 'King's,' or such like. Small as these "things may seem in civil eyes, they are dear to the "soldier and soldier-doctor, and form the most "pleasant rewards a regiment can receive. Knowing, "as we do, the long and faithful service of Army "Doctors in the century and three-quarters that have "passed away since Marlborough's days, and the "constant share the Medical Service has taken in "continual campaigns, one opens the Army List to "find that no reward of any kind exists at the head "of the Department, differing in this way from every "other corps in the Service. That Army Doctors "feel this I am certain, and it has often been pointed "to by Doctors favouring regimental views to show "the neglected condition of the Medical Service. It "seems impossible to answer such a complaint.

"Take even the latest example—Ashantee. The "23rd bear the word on their colours, although, as it "happens, through no fault of theirs, the share they "took in the campaign was principally lying off the "African Coast in transports.

"Seventy-three Army Medical Officers served "there, all exposed to disease, many under fire, yet no "record, general or particular, would show this to the "uninitiated.

"The average civilian would think we had done "nothing.

"Many Officers feel disheartened at this apparently "unequal treatment of the Army Medical Department "by comparison with other branches of the Service.

"We get no record of duty done, although every "other body does.

"Yet no Corps of Officers can compare in Service "with ours, and for this reason:—We have taken "share in every European Campaign from Marl-"borough's battles to Sebastopol, and, in addition, "have served in all the long Indian Wars that built "up our Empire in the East.

"The Artillery and Engineers never went to India "until 1857, neither did the Commissariat—the Chap-"lains, nor the other Departments. We, on the "contrary, have shared in all these Wars, and some "of the noblest acts of devotion have been done "under an Indian sun, in the days of 1857, at Delhi "and Lucknow, and in the old days before them.

"We are not honoured with the prefix 'Royal,' "although Artillerymen and a crowd of Infantry

"Corps are so honoured; we, equally devoted to "England, are left out in the cold.

"Small things like these are often great because "they are so small. They are dear to the soldier and "the soldier-doctor, and we would put up with many "a hardship, knowing that by-and-by recognition of "good service done would come."

What is urgently required for the Medical Staff is:—

1. That the recommendations of the War Office Committee of 1878 should be carried out as regards Honours and Rewards.

2. That Medical Officers should receive brevets which would confer Army rank with all its advantages, except command, while retaining their position on their Departmental list for Departmental duties.

3. That the Medical Department should be made a Royal Service, under the title "Royal Surgeons," and be given a distinctive motto.

4. That the appointments to the distinction of Q.H.S. and Q.H.P. should be given to Officers of the rank of Lieutenant-Colonel, who would *ipso facto* become, on appointment, Deputy Surgeon-Generals, but supernumerary of the rank.

5. That on promotion to Surgeon-General, or retiring from the active list, an Officer should cease to be Q.H.S. or Q.H.P.

6. That a Q.H.S. or Q.H.P. should receive the same rate of pay as an A.D.C. to the Queen.

7. That at the very least the Medical Staff should receive the same proportion of Honours and Rewards as the other Departments of the Army, if not that they should be on a par with Combatant Officers in this respect.

IV.

The present relative rank of the Medical Officer means nothing, while the titular distinction is absurd.

The Army and the public in general do not know the difference between a Surgeon-Major and a Surgeon-General, while the intermediate titles of Brigade Surgeon and Deputy Surgeon-General only make confusion more confounded.

The Surgeon-Major is a Major—or ranks with one—on promotion to the rank of Lieutenant-Colonel he is still a Surgeon-Major.

A Surgeon-Major of the rank of Lieutenant-Colonel becomes a Brigade Surgeon, but the Brigade Surgeon still remains a Lieutenant-Colonel.

A Surgeon-General is a Major-General, on promotion to Director-General he still remains a Major-General. Can any system of titular rank be more absurd and confusing? The present titular rank conveys nothing to the

rest of the Service and fails to command respect in the Service, and the Medical Officer would be far better without it.

Let him be either purely civil in title and have no rank, or as an integral portion of the Military machine purely Military. The former course is now impossible since the command and discipline of the men have been handed over to the Medical Officers.

In the present day, when so much has been done to amalgamate the Officers and men of the Medical Service, and to make them one Corps, it has been strangely forgotten that all the members of that Corps, with the one exception of the Commanding Officers, have Military rank and title.

Can anything be more ludicrous than that a Station Hospital, or a unit in the field, such as a Bearer Company, or moveable Field Hospital, consisting of individuals with Military rank and title, from Private to Captain or Major (the latter being the title of the Quartermasters of the Medical Staff) should be commanded by practically a civilian who is plain Mr. or Doctor to the Officers and men under his command?

The position is not only anomalous but enormously increases the difficulties of command. In time of War, too, the Officer commanding Field Hospital Transport, who has himself a Military title, is under the orders

of the Medical Officer commanding the Field Hospital, practically a civilian.

Granting of titular, or, as it is called, Honorary rank to the Medical Officer has become necessary and is only a question of time. It is in existence in many other Armies and has not been found to interfere with the high professional standing of the Medical Officers.

The Surgeon-General of the United States Army writes:—

> "*No difficulty whatever, either in theory or practice, has*
> "*arisen from the fact that Medical Officers have real rank;*
> "*but, on the contrary, the wisdom of the legislation by which*
> "*it was effected has been satisfactorily established.*
>
> "*It is an undoubted fact that the law giving Medical*
> "*Officers the same military status as other officers has done*
> "*much to enhance the esprit-de-corps, and to increase the*
> "*efficiency of the Army Medical Service.*"

These are weighty words and deserve full consideration by those who would oppose such a step in the English Army.

It may be urged that claims for titular rank only come from Medical Officers in the Service. Bearing on this, the views of the Professor of Surgery, University College (Professor Marshall, F.R.S.), as laid down before the War Office Committee of 1878, are of special value.

He states—vide Appendix A, p. 46, of Blue Book before referred to.

> "If my idea of the question is the correct one, it
> "seems to me that there is only one way of making
> "the Department attractive, and that is by putting it
> "in every respect on the same footing as the Royal
> "Engineers.
>
> "I cannot see the objection to this plan. *The*
> "*profession of Medicine is certainly as honourable as that of*
> "*Engineering, and in these days of colossal armies the impor-*
> "*tance of the Sanitary Branch of the Service is second to*
> "*none.*"

He recommends accordingly—para. 2—

> "The Corps so formed should be considered essen-
> "tially a Military Corps, as is the case with the Royal
> "Engineers.
>
> "The present position of a Medical Officer is
> "unjust, and puts him at a great disadvantage with
> "other Officers, both socially and in the matter of
> "Military rewards.
>
> "It is unjust, because in these days of long-range
> "weapons, wherever there is fighting there are
> "Medical Officers under fire, and in modern European
> "wars the mortality among them from gunshot wounds
> "has been considerable. Then again, it ought to be
> "remembered that in Active Service, even if a Medical
> "Officer is not sent to the front, he probably has to
> "face still greater dangers, in the fearful epidemics of
> "typhus, cholera, &c., that sooner or later almost in-
> "variably make their appearance in Military Hospitals
> "in the field.
>
> "Even in this week's *Lancet* I see that during the
> "latter half of April there were as many as 470 Russian
> "Medical Officers suffering from typhus fever.

"I think then, it must be admitted, that the time "has come for him to be considered a Military Officer."

Is it more absurd that a Medical Officer should have titular rank than an Engineer, who it is to be hoped is no worse Engineer because he is Captain or Colonel—than a Paymaster who resigns his combatant commission, to take up purely Civil Clerical duties, and at no time has command of men—than a Commissariat Officer—than an Ordnance Officer? The two latter have been lately granted the honorary rank and their positions have been enormously increased thereby, and no doubt proportionately the efficiency of their Departments. The difference in the respect accorded in the Service, and out of the Service, to Colonel A., Commissariat and Transport Staff, and the late Mr. A., Dy.-Com. General, is too marked, not to prove how beneficial has been the change, and how necessary it is that it should be introduced into the Medical Department, which in this, as in other respects, is far behind the times.

Until this desirable change be effected, the Subaltern must be expected to treat even in official matters, the Surgeon-Major or Surgeon-General with considerably less of the recognised etiquette of respect of the Service than he would accord to the Junior Major of his Battalion.

As the Subaltern of to-day is—so will the General of the future be, and in the past the Service and the Country

have suffered enough from General Officers not quite recognising the importance to the success of their operations of a well-organised Medical Service, and the position of their Medical Staff.

The Medical Officer must be, above all things, a first-rate professional man, and on his knowledge of his work his reputation must stand or fall, but his work, more particularly in the field, also includes powers of organization and powers of command, without which his pure professional knowledge might but little avail.

The titular rank is an adjunct which has become necessary, viewing the changes in the other branches of the Service, to enable him to discharge his duties more efficiently, and to give additional weight to the recommendations or orders he may be called upon to give.

But even in the question of the present relative rank the Medical Officer is again behind the times and the other branches of the Service.

A private may rise from the ranks, and become a full General: a Medical Officer cannot attain a higher rank than Major-General. Why should this be?

A Commissariat Officer attains the rank of Major in twelve years' service or under. *Five years' service in the rank of Major promotes him to Lieutenant-Colonel*, that is, in seventeen years, or less. So with the Ordnance.

The Medical Officer is promoted to the rank of Major at twelve years' service, *he has to pass eight years in that rank before attaining the rank of Lieutenant-Colonel*, that is, in 20 years' service.

The Commissariat Officer entering the Service at the same time as the Medical Officer beats him by three years at least, and must pass over his head. Is this fair?

In the Combatant branch a Lieutenant-Colonel serves *four years in the rank*, in any capacity except command of a Company, and is then promoted to Colonel.

A Medical Officer has to serve *about ten years in the rank of Lieutenant-Colonel* before promotion to the rank of Colonel, while it must be remembered that promotion has become so rapid of late years in the Combatant branch of the Service, that most men attain the rank of Lieutenant-Colonel in a shorter period of service than is required of Medical Officers, viz., 20 years.

A Surgeon-Major is promoted to Brigade Surgeon, he receives the right to wear a frock coat, and to adopt a title which conveys nothing to the Military or Civil mind, but he still remains a Lieutenant-Colonel, and this at 26 years' service, the time at which he attains his promotion in the present day. Had he had a particle of ability and been in the Combatant branch, at 26 years' service, or at least at his age, he would have been a full

Colonel, or more probably a Major-General. Had he been in any other Department, he would probably have been two steps higher in rank.

The granting of the rank of Captain to Surgeons entering the Service is unnecessary, and is unjust to the rest of the Service.

What is required is as follows:—

1. Altering relative rank to—

Surgeon on entering	Lieutenant.
Surgeon after 3 years' service...	Captain.
Surgeon-Major	Major.
After 5 years in rank	Lieutenant-Colonel.
Brigade Surgeon on promotion	Colonel.
Deputy Surgeon-General ...	Major-General.
Surgeon-General	Lieutenant-General.
Director-General	General.

or for the three latter—

Deputy Surgeon-General... ...	Brigadier-General.
Surgeon-General	Major-General.
Director-General	General.

That the head of a Department numbering nearly 1,000 Officers should only rank as a Major-General is most unjust.

2. Granting honorary rank to all Officers of the Medical Staff as granted to the Ordnance, Commissariat and Pay Department, according to the above scale.

The chief reforms now required for the Medical Staff have been lightly touched on in the above.

The first of them not only concerns the Medical Officers but the Service and the public in general. There are few families who have not relatives or connections in the Service. Should illness befall them at home the best advice can be procured at a few hours' notice, but in up-country Stations all over India and other foreign dependencies, and on Active Service in the Field, the Army is absolutely dependent on its Medical Officers, who therefore cannot be too highly educated.

It may be urged that the Medical Service of the Army is a popular one, because there is no difficulty in obtaining candidates. It is true there is an abundant supply to whom the conditions offered on entering are sufficiently attractive to blind them to the future career before them.

They enter in haste, and in utter ignorance of the conditions of service of other branches of the Army, but repent at leisure, as they begin to realize the conditions under which they are serving, compared with those of the rest of the Service.

The best Senior Officers are rapidly leaving or seeking opportunities to do so.

There is no attraction for a distinguished Medical Officer to remain, there is no career before him. The

injustice accorded to the Medical Staff has raised a strong and gradually increasing spirit of discontent amongst the Officers, which is even now re-acting to the detriment of the Service.

It is too common in these days to hear the best Medical Officers saying openly that they never desire, and will certainly never volunteer, to go on Active Service again, and that they only look forward to the day when they can leave a Service, which has probably injured their constitution, has offered them no career, and sends them back after each successive campaign, disheartened and sick at heart at their work being unrecognized, and at being passed over time after time by their Juniors in the other branches of the Service.

Such a feeling cannot be a healthy one, and yet it strongly exists. Should it influence the devotion to duty which has hitherto characterized the Medical Officers in times of Epidemics, and War, it will be more than serious. Should the existing grievances not be redressed, the intending candidate for the Medical Staff will probably pause and consider whether he had not better enlist, rather than enter a Service which possesses all the above disadvantages, which combines all the dangers and hardships of the two professions, Arms and Medicine, and in which he will receive the honours and rewards of neither.

It is full time that a War Office Committee should

be assembled to consider the changes that have become necessary in the Medical Service of the Army. Such a Committee should be mainly composed of those, who are most conversant with the question, and whose recommendations should carry the greatest weight, viz.:—Medical Officers.

It would be for the Secretary of State for War to consider, how far effect could be given to the recommendations which such a Committee would, after carefully considering the question, feel bound to make. The interests of nearly 1,000 Officers are involved, as well as the good of the Service: it is not, then, too much to hope that such a Committee as above suggested should assemble at no distant day.

POSTSCRIPT.

Since writing the foregoing, Relative rank in the Army has been abolished. There remain now but two forms of rank, viz: Substantive Rank and Honorary Rank. The Medical Officer has neither. He is thus completely cut adrift from the Service to which he devotes his life. True, for purposes of precedence, &c., he ranks *with* a Captain, Major, &c.; so does an Indian Civil Servant, an Indian Archdeacon, or an Indian Telegraph Official.

The Commissariat, Ordnance and Pay Officers have been put on a satisfactory footing; the Medical Officer has gone one step backwards.

The relations which in future will exist between the Medical Officer, who has no rank; his Quartermaster, who has Honorary Rank; and his Warrant and Non-Commissioned Officers, who have Substantive Rank: will be somewhat difficult to define.

The enforcement of discipline and the power of command in his own Corps, the strength of which is now 2600, hardly come under the headings of "precedence, pensions for wounds, pensions to widows, and

compassionate allowance to children," which alone are provided for by the anomalous position assigned to the Medical Officer in para. 125a of the recent Royal Warrant. It remains to be seen whether such a position will be accepted as a satisfactory one. The result can hardly be doubtful. The question is not a mere sentimental one, but one of efficiency.

MARCH, 1887.

[FOR PRIVATE CIRCULATION ONLY.]

STATEMENT OF THE POSITION

OF THE

OFFICERS OF THE ARMY MEDICAL STAFF

WITH SPECIAL REFERENCE TO

SERVICE IN INDIA.

Printed in November. 1887.

By Brigade Surgeon J. B. Hamilton. M.D.

STATEMENT OF THE POSITION

OF THE

OFFICERS OF THE ARMY MEDICAL STAFF

WITH SPECIAL REFERENCE TO

SERVICE IN INDIA.

THE following pages have been written with a double object. The first, and most important, to inform the profession in the United Kingdom, and especially the Parliamentary Bills Committee of the British Medical Association, its council, branches, and individual members, of the facts regarding the position now occupied by nearly a thousand of their professional brethren serving under the Crown, with a view to the Association taking such steps on behalf of the officers of the Medical Staff, as will ensure to them a defined position in the Army, and the extension to India of the contract under which officers are engaged to serve Her Majesty, namely, the Warrant of 1879.

The second object of these pages is to acquaint intending candidates of what they have to expect when they enter the Queen's Army. Many young men believe, when they engage to serve at home, or in the Colonies, on an income of £300, to commence with, that they will get higher pay in India (double pay is the popular belief), and be able, not only to live well, but to save money. How they are undeceived on arrival is but too well known. It only remains therefore to add that every statement in the following pages is absolutely true, and it is to be hoped they will be thoroughly studied and understood by all concerned.

Many young medical men on the look out for a line of life, naturally turn to the public Services—the Medical Staff of the Army, the Royal Navy, and the Indian Medical Service—all of which have their attractions. The present notes are, however, only meant to clearly set forth the condition of the first-named—the Medical Staff of the Army—and with a view to intending candidates not being in any way misled, it is necessary that a few facts, additional to those set forth in the schedules furnished from the War Office, should be made known.

The Warrant under which officers of the Medical Staff now serve, dated 27th of November, 1879, and promulgated on the 2nd of December, 1879, was the outcome of a long and bitter struggle between the Government of the day and the Medical profession.

The history of the Medical Department of the Army for the last thirty years, has been on one side a constant attempt on the part of those in authority to deprive Medical officers of their rights and privileges; and, on the other, a resistance to wrong and injustice, in which those who were the injured parties were nobly upheld by the profession at large, and particularly by the British Medical Association, without whose aid, the officers of the Medical Staff of the Army could never have obtained their present position.

It would be waste of time to review the various breaches of faith from which the department suffered, but it may fairly be said that, since the issue of the Warrant of 1858, the result of Lord Herbert's Commission, there has seldom been a period in which there has not been one or more causes of irritation between Medical officers and the War Office authorities.

One time it was due to placing officers "junior of their rank," whereby they were deprived of all the advantages attaching to seniority in the rank, for all purposes of precedence, choice of quarters, &c., &c. Again it was the "deprivation of forage allowance" to mounted officers; then it was the abolition of the regimental system in a high-handed and autocratic manner, by which Medical officers were put to great expense, without any compensation whatever for change in uniform and other necessary outlay; and last of all came the crowning act of abolishing the relative rank which Medical officers had hitherto held, thus depriving them of all rank in the Army in which they were serving.

Before the issue of the Warrant now under review (dated 27th of November, 1879), the Medical Service of the Army had become so unpopular, that for nearly two years, there were no candidates, and no examinations were held.

The matter, in fact, became a public scandal, and a War Office Committee, of which the then Director-General, the late Sir William Muir, was a member, formulated the Warrant under which the officers of the Medical Staff now serve.

This Warrant, it is freely admitted on all sides, was a most just and liberal concession to the claims of the department and the demands of the profession, and though there can be no finality in such matters, as a result, the ranks of the Medical Staff were quickly recruited from a superior class of candidates.

There was, however, a blot on this, otherwise excellent, Warrant, a blot that was at the time pointed out by many who saw through the meaning of it, a blot seen by Sir William Muir himself; but, as is well known, that grand representative of the interests of his Service, accepted the Warrant; no doubt believing that it was to the interest of the department to accept it as it stood, as an instalment of justice, well knowing that, in the future, matters would remedy themselves.

The blot referred to is contained in the Secretary of State's instruction on the foregoing Warrant, to the following effect: "1. The foregoing Warrant will not be applicable to Army Medical officers while in India or on the Indian establishment, and no additional emolument will, under its provisions, accrue to Medical officers serving in that country."

This little paragraph, simple as it seems, constitutes one of the greatest injustices ever inflicted on a body of officers serving under the Crown. First, to draw a comparison with the rest of the Army. Some years ago, all batteries of Royal Artillery were commanded by Captains (the rank of Major not then existing in the Ordnance Corps), but by a new regulation the rank of Major was extended to these officers, and as a result, they were given the pay of Majors both at home and in India. Again, in the Cavalry and Line, a second Lieutenant-Colonel and two extra Majors were added to each regiment, and these officers were also granted increased pay in India.

Contrast the treatment of these combatant officers with that of Medical officers, whose Warrant is specially debarred by the Secretary of State from being extended to India. Now let us see the effect of this. Surgeons under the Warrant in question were granted relative rank as Captains, which relative rank carried with it at home, and in every part of Her Majesty's dominions, *except India*, all the allowances drawn by a Captain on the Staff.

The pay of a Surgeon on joining was laid down as £200 a year, which, with allowances for lodging, servant, fuel and light, etc., brought the gross pay up to very nearly £300 a year.

In addition to this, a Surgeon, when travelling on duty at home, or in the Colonies, is entitled to a travelling, or detention allowance, of 10*s.* a day to cover his hotel and other expenses. He gets his luggage also carried free wherever he goes; his cab hire, and all reasonable charges connected with his movements are repaid to him, so that, as a matter of fact, he has his income to live on, clear of all charges for travelling on duty.

This is as it should be, and the Surgeon at home and in the Colonies is, on the whole, well paid for his services.

Now with this picture, let us contrast that of the Surgeon in India.

It is popularly supposed that officers in India get "double pay", and so it may be admitted many do; for instance, take the case of a Colonel commanding a regiment at home and in India: at home the pay is, about £500 a year, including all allowances, while in India, taking the rupee at 1*s.* 4$\frac{1}{2}$*d.* the last quoted rate of exchange, it is £1,174 a year. A Brigade Surgeon of thirty years' standing, on the other hand, draws £750 a year, all told, at home; while in India, he draws at the present rate of exchange £895, so that, compared with the combatant officer of the same rank, while he (the Brigade Surgeon) draws £250 a year *more* at home, he draws £279 a year *less* in India, or a total difference of £529, in favour of the military officer.

In the case of the Surgeon and Captain, it is much the same. The Surgeon, on appointment at home draws £300 a year; the combatant Captain £250, while in India, the Captain draws, at the present rate of exchange, £348 a year, the Surgeon £265.

It may be asked how this difference arises. The answer is, that while the Medical officer's pay has been

largely increased during the last twenty-five years at home and in the Colonies, none of the Warrants have ever been extended to India, so that he is still serving in that country on the rate of pay he was granted a quarter of a century ago. And further it should be borne in mind that, when the present consolidated rate of pay was established, the rupee was worth 2*s.*, whereas now it is only worth 1*s.* 4$\frac{3}{4}$*d.*, a depreciation in its value which causes the grievance to be doubly felt.

The next point that requires elucidation is, how is such a state of affairs permitted to exist?

The reply is, the dual system of Government. Medical officers are recruited under the authority of the Secretary of State for War, and engage to serve under certain conditions; but no sooner are they fairly launched on their military career, then a very large proportion of them are handed over to another Master, the Secretary of State for India, who declines to recognize the contract they were engaged under, and instead pays them at a rate that was in vogue twenty-five years ago. What would be said of a private firm, a Bank for example, that first engaged a number of clerks at a certain salary, and then, when it was too late for them to enter any other line of life, handed them over to another firm or company abroad, on smaller pay than the first company agreed to pay them?

In all equity, the Warrant under which Medical officers enter the Service should be extended to India, or they should be given the option of declining to serve in that country.

It is a preposterous system that one Government official should have the power to recruit officers for Her Majesty's Service, and then, that he should hand them over like a flock of sheep to another official who refuses to ratify the contract entered into by the first.

When this injustice is clearly understood by the profession, the matter must be adjusted on the lines of equity, and either the terms of the Warrant of 1879 be extended to India, which would give Surgeons the pay of Captains, (Rs. 415 a month instead of as now Rs. 317), or else, all Medical Staff officers should be given the option of serving in India, and the Indian Government would then be obliged to engage Medical officers specially for service in that country with European troops.

The following table shows the *lowest* rate of pay and allowances drawn by officers of the Army in India, including all the departments.

	Rs.
Captain, British Infantry	415
„ Native „	574
Lieutenant „ „	325
Commissariat Department.	
Lowest pay of Captain	574
„ „ Lieutenant	425
Ordnance Department.	
Captain	574
Lieutenant	425
Veterinary Department.	
Veterinary Surgeon, including horse allowance	375
Medical Staff.	
Surgeon	317

It will be seen from the above that the lowest rate of pay of a Lieutenant serving in any *department* in India is Rs. 108 more than that of a Surgeon of the Medical Staff, while Captains draw nearly double and Veterinary Surgeons draw Rs. 60 more than Surgeons. It should also be noted that the Veterinary Surgeon only ranks as a Lieutenant and that his pay at home and in the Colonies, is far less than that of a Surgeon.

Now let us see what is the real value of the relative rates of pay of junior Surgeons at home and in India. Young men on £300 a year can live comfortably, in England especially, when all their travelling expenses are defrayed by the State. How is it in India? A Surgeon in India for the first five years of his service draws Rs. 317 a month, or Rs. 100 a month less than the (so-called) combatant officer of the same rank. What is this worth? and can he live on it in comfort?

The first thing to consider is, what does Rs. 317 represent. People at home think a rupee is worth 2*s.* and that Rs. 317 a month would therefore equal £31-14-0, over £1 a day, or £380 a year. Unfortunately this is not the case. At the present time, the rupee is only value for 1*s.* 4¾*d.*; his total annual income is therefore but £265, or £35 a year less than at home; so that the theory of double pay for the Surgeon in India is at once exploded, and he is proved to have a smaller sterling income than at home, or in the Colonies.

The next question is, can a Surgeon live comfortably (saving money is entirely out of the question) on his pay of Rs. 317 a month? No doubt he can exist on it, but only by being very prudent, and no margin is left for amusements or recreation, or for the purchase of new books or instruments by which he might improve his stock of knowledge, and so benefit both his patients, himself, and the State.

The following table may be put down as the average monthly expenditure of a junior Surgeon in India:—

	Rs.	a.	p.
House-rent	40	0	0
Servants	60	0	0
Keep of a pony	20	0	0

	Rs.	a.	p.
Living...	100	0	0
Clothes and uniform, &c. ...	25	0	0
Various station subscriptions ...	15	0	0
Miscellaneous expenses ...	30	0	0
TOTAL ...	290	0	0

This estimate is very low, and if a Surgeon lives at a mess, his living will never cost less that Rs. 150 a month, in which case his income would not cover his expenditure.

The above merely represents the actual current expenses he has to meet monthly; in addition, it must be remembered that, on the first start, he has to buy furniture, a pony, harness and a trap, and even at the very lowest, these items will come to Rs. 500, which, unless he has that much capital to commence on, and very few have, must be borrowed and paid off by degrees. If furniture is not purchased, it may be hired at an average cost of about Rs. 10 per mensem, still further increasing the monthly outlay. It may be supposed by those who have no Indian experience, that keeping a pony and trap is a luxury that might be dispensed with, but to every one with a knowledge of the country, it will be apparent that it is simply a necessity of existence, and that no Medical officer could possibly perform his duties, in the hot weather especially, without the assistance of an animal to ride and drive.

It has thus been shown that a Surgeon, during his first five years' service, can just exist on his pay in India; that is, if he is fortunate enough to get settled down in a quiet station, and is not moved. In any large station, the life of the Surgeon is anything but a settled one, and he is certain to get moved on duty several times during his tour

of service, each of which means expense in selling and buying furniture, and if to a distance, his pony and trap as well.

There are also numerous duties to perform with troops moving by march route, or rail, and on an average, a Surgeon may expect three such turns of duty every cold season. Let us see what this means. Suppose, for example, a Surgeon is quartered at Umballa, and is ordered to take invalids down to Bombay. He must of course leave his house, furniture, pony, &c., behind, and continue to pay his rent, feed his animal, and keep on his servants. He has next to pay for a conveyance to take him and his baggage, to the railway station—at every important station he visits, he has to report his arrival in person, and pay his own carriage hire—on the line of rail he has to live on the bad and expensive food provided at the refreshment rooms, or in the rest camps—at an average cost of at least Rs. 7 per diem. When he arrives at Deolali, he has to live at a mess. Then he has perhaps to go down to Bombay, and live in an hotel for a day or two, and on the way back incur similar expenses. A duty of this kind usually lasts a fortnight or longer, during which time he lives in the utmost discomfort, and at an average extra cost of probably Rs. 10 per diem; during the whole of this time he does not get an allowance of any description from the Indian Government, though at home he would draw 10*s.* a day, and all his cab hire and other necessary expenses would be refunded to him.

There is no body of officers so hardly treated in this way as Medical officers, because, their numbers being very limited, they get sent about constantly all over the country at great expense and inconvenience.

Then, in the hot weather, if cholera breaks out, Medical officers have to be despatched to the infected districts, and

though frequently put to enormous expense, they receive no compensation whatever from Government.

The following example is taken from the lips of a Surgeon who was the victim, and whose case is by no means singular:—"I landed in Bombay in the latter end of 1885, and was first sent with troops to Rawal Pindi. On the completion of this duty, I was posted to a station in the North-West. I hired a bungalow, bought furniture, and a pony and trap, and immediately afterwards was sent on duty to a musketry camp, leaving my house and furniture. I was at the camp for three weeks, and returned the end of November. Early in December I was ordered to march with troops to the Camp of Exercise at Delhi, again leaving my house, furniture, pony and trap. I was absent on this duty for three months and-a-half. On return to my station, I did duty in the station hospital during the hot season and could get no leave. Early in October, 1886, I was sent with invalids to Deolali, and was absent eighteen days, at an extra cost to me of Rs. 150. The day I returned I was ordered to a distant station for temporary duty. I then gave up my house, and sold my furniture for a song, also my pony and trap at great loss, as a Surgeon is not allowed to take a horse by rail, though I could not possibly have done my duty without one. My stay at this station was so uncertain, I lived all the time at an expensive hotel, and during the time was sent down for a week on duty with troops to Allahabad. At the end of the cold season I was sent back to my original station, where I had again to set up house, buy furniture, a pony and trap, and so far as I can see, have not the smallest prospect of obtaining leave this hot season."

This is anything but an isolated case, and every Surgeon gets moved about, more or less frequently, every year; some on temporary duty, in which case they return

to their stations, but many are transferred permanently to places hundreds of miles off. Of course it may be argued that the same thing happens to combatant officers. True, but in the first place, "two wrongs do not make one right;" and in the second, the greater number of combatant officers, brings the turn of this duty very seldom to each individual, while Medical officers are constantly on the move.

The other departments of the Army in India, all of which are better paid than the Medical, have none of this kind of knocking about, and are not put to anything like the same expense.

Compare the Veterinary Surgeon with the Medical officer. The former though ranking with a Lieutenant draws the same pay as the Surgeon, Rs. 317; and, in addition, gets Rs. 60 per mensem extra as horse allowance, —though, as a matter of fact, he never appears on parade, except perhaps at a General's inspection. On the other hand the Medical officer has to attend all field days, and accompany the troops, when on the march, at field manœuvres, &c., &c. The Veterinary Surgeon can also (and generally does), add to his income by professional work; while private practice is an impossibility for the large majority of officers of the Medical Staff. It will thus be seen that a Veterinary Surgeon is better off by far, than a Surgeon of the same standing, which would go to show the relative value placed on these officers' services by the Indian Government.

The subject of horse allowance is perhaps one of the greatest injustices the junior Medical officer suffers from. It may be laid down as a fact, which there is no disputing, that it is a matter of physical impossibility that any Medical officer could perform his duties (at all events during

the seven hot months) without the aid of a horse. His house is generally situated some distance from the hospital, which he must visit twice daily all the year round at least, and when on duty, has during the day again to inspect the dinners, in addition to which he is liable to be called at any time, night or day, hot or cold, to the hospital or any part of the station. If in charge of a corps, which most Medical officers are in addition to their hospital duties, he must visit every portion of the extensive regimental lines weekly. He must also attend Committees at the Commissariat Stores, often miles away from the hospital, and when ordered out on field days, he must either ride his own horse, or risk being mounted on some rough, and perhaps vicious, Cavalry or Artillery trooper. Not long ago, a Surgeon sent out on a field day, was mounted on an Artillery horse, which ran away with and killed him.

Nor is this by any means a solitary instance, *e. g.*, the late Surgeon McCaw was similarly thrown from a troop horse, and was so much injured, he became insane, was sent to the Lunatic Asylum at Netley, and died shortly afterwards. Cavalry officers will not ride troopers on parade taken indiscriminately from the ranks; yet Medical offices, who are not allowed forage, are supposed, at a moment's notice, to be able to ride any rough, pulling,. or vicious horse that may be detailed for him.

As an instance of the way the Indian Government treats Medical officers in this respect, it may be noticed that, during the Afghan war, the Surgeon-General strongly recommended that every Surgeon in the field should be mounted, as a necessity. After a long discussion, the Government of India consented to allow forage to a Surgeon *while on the march*, but on arrival at a standing camp or cantonment, the allowance was to cease! Thus, a

Surgeon marching to Cabul, for instance, drew the allowance till he arrived there, but it then ceased, and the Medical officer had either to sell his horse, or keep it at his own expense, till he again went on the march.

It will be seen from these remarks that "forage" is an absolute necessity for all Medical officers, and in camp, cantonments or the field, every Medical officer should be mounted. As a matter of fact, they all are now; but in the case of the juniors, at their own expense, out of their miserably small pay.

Before the introduction of the unification system, forage allowance was granted to all Medical officers attached to regiments of Cavalry or batteries of Artillery; but on the abolition of the regimental system, this allowance was done away with, resulting in a loss to the department in India of Rs. 40,000 a year.

The foregoing remarks illustrate the conditions under which junior Medical officers serve in India, and the spirit of parsimony in which they are treated by the Government.

Their grievances have become so pressing that the aid of Parliament has been invoked, with what result, remains to be seen. The following is a copy of a petition presented in March last to the House of Lords, by Lord Ashbourne and to the House of Commons by Doctor Cameron, M. P.:—

The petition of the Royal College of Surgeons in Ireland, humbly showeth;—That your petitioners, having been charged by Charter with the duty of "providing a sufficient number of properly educated Surgeons for the service of the Army," are concerned to represent that the Medical officers of Her Majesty's Army suffer under substantial grievances deserving of consideration and redress by your Hon'ble House. That Medical officers entering the Army Medical Service are placed at a disadvantage,

as compared with officers of similar rank and seniority entering the Indian and Naval Medical Services; inasmuch as their commissions do not date from the period at which they have passed the examinations necessary to their admission, but from a date subsequent to their period of service in the Army Medical School. That officers of the Army Medical Staff, when ordered to serve in India, are not allowed the pay granted to other officers of the rank which they held under Her Majesty's Warrant, their monthly pay (under five years' service) being Rs. 317-8-0, to include all expenditure for transport and field duty as compared with Rs. 415-6-0 per mensem allowed to combatant officers of the same rank under similar circumstances. That Army Medical officers suffer great injustice from the fact that, when incapacitated by disability incurred by, and in the discharge of, their duty, they are not allowed, as combatant officers are, to count all their sick leave (beyond a period of six months) towards seniority and are not entitled to pension or gratuity of equivalent value to that granted to combatant officers of their rank. That, if Army Medical officers become so incapacitated before the tenth year of their service, they are not entitled, under the terms of Her Majesty's Warrant, to receive any pension or gratuity equivalent to that granted to other officers of similar rank. Your petitioners, therefore, humbly pray your Hon'ble House to take such steps as may be necessary to cause the Medical officers of Her Majesty's Service to be placed in the same position, in these respects, as that occupied by other officers of equal rank and period of service. And your petitioners will ever pray, etc.

(Sd.) WILLIAM STOKES, *Knight, President.*

(Sd.) ANTHONY H. CORLEY, *Vice-President.*

(Sd.) ARCHIBALD H. JACOB, *Secretary of the Council.*

Surgeons-Major are on the whole fairly well paid, and no great injustice is inflicted on them in the actual matter of pay, though in other ways, as will be shown hereafter, they are hardly treated in common with the rest of the

department serving in India, particularly in the matter of charge allowance for station hospitals.

The rank that suffers most, next to the Surgeon, from being underpaid, is that of Brigade Surgeon, and as their claims have been embodied in a statement which has been largely circulated, a summary of it is given here.

When the present Warrant, under which officers of the Medical Staff draw consolidated pay in India, was compiled (about twenty-two years ago), the rate of promotion for all ranks was far more rapid than now; Medical officers obtained field rank at about ten years' service, and frequently became Deputy Surgeons-General before twenty-five years' service, and on this rate of promotion, the scale was drawn up. The pay of Surgeons-Major, after twenty years' full pay service was laid down at Rs. 1056-9-7, and after twenty-five years at Rs. 1093-2-0. Beyond this no arrangement for an increase was made, as it was then considered improbable that an officer would remain much over twenty-five years in the executive grade. At the present time Medical officers do not obtain administrative rank till after thirty years full pay service so that they have to serve from twenty years service to over thirty years service, with but one small increment of Rs. 37 after twenty-five years' service. When the present Indian Pay Warrant was granted, the rank of Brigade-Surgeon was not contemplated and therefore no provision was made for it in the Pay Code. Consequent on the reorganisation of the Department, a Royal Warrant dated 27th November, 1879, was promulgated on the 2nd December, 1879, in which was introduced the new rank of Brigade Surgeon, with increase of pay corresponding to the increase of rank. The rank of Brigade Surgeon is only obtained after the most rigid selection, founded on physical fitness; reports of administrative and General Officers; and on the results of a most searching examination. Until the establishment of station hospitals in 1881 and 1882, Surgeons Major in charge of regiments of the mounted branches drew Rs. 90 extra for horse allowance so that a Brigade-Surgeon of over thirty years full pay service in charge of a station hospital, in which the sick of several corps are treated, now draws Rs. 90 per mensem *less than he drew when serving in India five or six years ago as a Surgeon-Major*

in charge of a Cavalry regiment or a battery of Artillery. No distinction whatever is made in respect to pay between Brigade-Surgeons and Surgeons-Major who have been "passed over" as unfit for promotion, and on field service the consolidated pay of a Brigade-Surgeon for charge of a general hospital and other additional duties is *exactly the same as that of a Surgeon-Major of twenty years' service.* The duties of Brigade-Surgeons are far in excess of those formerly performed by Surgeons-Major in charge of regiments, and their responsibilities are much greater. These officers are now invariably posted to the head-quarters of a division, and hold charge of the station hospital, frequently in two or more sections, and they perform duties formerly divided among several senior officers. In addition to this, they have to carry on the duties of the Deputy Surgeon-General in his absence on duty, and when absent on privilege leave up to three months have to officiate for him, without extra pay or allowances, *in addition to their other duties.* Brigade-Surgeons in charge of large station hospitals have not only an enormous pecuniary responsibility, which is strictly enforced in the case of loss of stores, but also exercise military command over all other medical officers, subordinates, orderlies, patients and native establishments, often amounting to 400 or 500 men in the aggregate, and though every other branch of the Army in India, combatant and departmental, receives command, charge, or staff allowance, the senior executive officers of the Medical Staff alone receive nothing for their great responsibility. In every part of Her Majesty's dominions *except India*, the rank of Brigade-Surgeon is recognised, and a very substantial addition is made to the pay in accordance with the Royal Warrant. In the Royal Warrant of 2nd December, 1879, it is laid down that the "foregoing Warrant will not be applicable to Army Medical officers serving in India, or on the Indian Establishment, and no additional emolument will, under its provisions, accrue to Medical officers serving in that country." This provision has been so far infringed that the title has been recognised out here (and has been extended to the officers of the Indian Medical Department) and duties are assigned in accordance with the rank, whilst at the same time the Government of India refused to sanction the increase of pay granted to the rank by the Royal Warrant. In the Royal Warrant of 1879, it is also laid down that "principal Medical officers will make the

best arrangements the service will admit of, to avoid throwing mere routine duties on senior executive officers." In India this clause is neglected, and the Brigade-Surgeons are liable to be called on to perform duties of the most routine nature. When promotion becomes a little more rapid (which under the present rigid system of selection soon must), Brigade-Surgeons of under twenty-five years' full pay service, will draw Rs. 1,056,* while the "non-selected" Surgeon-Major will draw Rs. 1,093 ; such an anomaly cannot of course be permitted, but at present there is no rule by which it can be obviated. It will be seen from the foregoing statement that the position of Brigade-Surgeons in India requires amendment, and that the rank should be recognised as contemplated in, and in accordance with, the Royal Warrant of 1879. When the regimental system was abolished, a very considerable reduction was made in the number of Medical officers in India, accompanied by a proportionate saving, and with the institution of station hospitals a further considerable reduction in expenditure was effected. Again when the "charge" allowance for Surgeons, and the horse allowances for officers attached to Cavalry and Artillery were done away with, a further large saving was effected, directly at the expense of the officers of the Medical Staff. It was generally understood that these allowances were, to some extent, to have been given back again to the department in the form of charge allowance for senior officers, and a recommendation to this effect was made by the Government of India, but was unfortunately rejected by the Secretary of State. It is well known that the late Commander-in-Chief, Sir Donald Stewart, expressed himself as being strongly in favour of what would be a mere act of justice and expediency, and many administrative Medical officers have put forward the same views in their reports. The fact now remains that the Medical Staff of the Army in India has, within the past few years, been deprived of large sums of money in the shape of allowances ; that their numbers have been reduced, thus throwing extra work on those who remain and diminishing their chances of leave ; that the senior officers had greatly increased duties and responsibilities imposed on them, and that the Indian Government has not in any

* This has now actually happened, and Brigade-Surgeons Preston and Ferguson are serving in India on Rs. 1,056 a month!!!

way recognised the position of Brigade-Surgeons in this country, either by giving them the position they are entitled to, or making them any money allowance for their extra work and responsibility, both official and pecuniary.

There are several precedents for considering the claim of the Brigade-Surgeons, *viz.*, the Majors of Royal Artillery when promoted from the rank of Captain, were all granted Major's pay, and further the grant was made retrospective. In the same way, the new Line Majors were granted an increase of pay ; it cannot be doubted that the claims of the Brigade-Surgeons would have been attended to years ago had the department had the same influence in the House of Commons as the Royal Artillery and Line officers. In conclusion the claims of the Brigade-Surgeons are: (1) recognition of their rank in India, with the increase of pay granted to the rank bythe Royal Warrant ; (2) exemption from routine duties ; (3) a Staff allowance sufficient to mark the importance of their duties, and compensate them for their pecuniary and other responsibilities.

The case of the Brigade-Surgeons has lately been brought before the House by Colonel Hughes Hallett in a question addressed to the Secretary of State for India, who in his reply refused to reconsider their position. It is understood, however, that these officers have memorialised the Secretary of State for India, through the Government of India, and it remains to be seen whether their just claims will be entertained on further consideration.

It is not perhaps generally known that when the unification system was adopted in India, the strength of the Medical Staff was largely reduced, all charge pay was done away and all allowance for forage stopped. It was then understood that a portion, if not all, of the money thus saved was to be given back to the department in the form of charge allowance to officers in charge of station hospitals; but, as a matter of fact, not one rupee has, up to the present, been granted to the senior officers for their extra work and responsibility.

What this saving amounted to may be estimated from the following fact:—In 1878, the cost of the Medical Staff in the Bengal Presidency alone was, in round numbers, £154,000 a year, whereas in 1887, it is but £112,600, or a saving of over £41,000 a year, added to which the saving on forage and charge allowance amounted to several thousands a year.

It must be remembered that, in addition to this, the Government has saved immensely by the introduction of station hospitals, the reduction in the expenditure of stores, medicines, instruments, &c., and that not one rupee of this money has been given back to the officers through whose hearty co-operation and willing labour this great saving was effected.

It will be remembered that in consequence of the Russian scare of 1885, the European Army of India was increased by 10,000 men. It is natural to suppose that the number of Medical officers would have been increased in proportion, and as five Medical officers per 1,000 men is the admitted necessary establishment, the increase of 10,000 men should have added fifty Medical officers to the Indian establishment. No such thing. The Government saw a further opportunity of effecting a saving at the expense of the Medical Department and quickly took advantage of it. Twenty Medical officers, instead of fifty, were sent out, on the following grounds: Of the 10,000 new troops, 4,000 only were due to the arrival of new corps, and for these the extra five per 1,000 were allowed, but as the other 6,000 men were only reinforcements to existing corps, none were allowed for them.

The absurdity of this line of argument will be seen at once. Take a station, for instance, where there were several regiments, and it will be seen that the addition to the garrison—to the strength of existing corps—amounted to, in

some instances, the numbers of an entire regiment; in some large garrisons 600 to 800 young men having joined. More noteworthy still, it is in this very class that most of the sickness is found, and enteric fever and venereal diseases are most prevalent

Further, the barracks being crowded, summer camps were formed in the hills to which many of these new arrivals were sent, and the Medical officers for these camps had to be taken from the already overworked officers of the plains garrisons.

On top of all this the campaign in Burmah was going on, and the staff for this work had also to be taken from the already weak department in India, with the result that all were overworked. Many were moved about, and very few indeed could obtain any leave. Leave in India is not a luxury, but a necessity; and it is bad policy, to say the least of it, to keep the strength of the Medical Staff so low as to prevent its members having their fair share of leave for the benefit of their health. One of the best administrative Medical officers that ever served in India was in the habit of compelling the Medical officers of his division to take leave to the hills; their going being, in his opinion, a necessity.

Every officer in India is supposed to get sixty days' privilege leave, and as a rule all combatants do so, and in addition from four to six months every third year, and in their turn a year, or, fifteen months home. As matters now stand, if Medical officers get privilege leave every second year they are fortunate, while as to getting six months it is about as impossible as anything can well be, and from longer leave they are absolutely debarred. It should be so arranged, by an increase in the strength of the department that every Medical officer should get at least two

months' leave *every* year with one period of six months during his five years' tour.

It should always be remembered that Medical officers have no holidays; all combatant officers have Thursdays to themselves by regulation, and Sundays by getting leave off Church parade; but for Medical officers Thursdays and Sundays are the same as any other days, and they must visit their hospitals as usual.

It is an old and trite saying that "all work and no play makes Jack a dull boy," and certainly service in India is calculated to rob a Medical officer of all zeal and energy, as worked all day and every day, he feels his labours are badly paid, and his indulgences far below those of his fellow-officers in every way.

One of the ablest and most experienced administrative Medical officers in India, officially reported, not long ago, that the strength of the Medical officers in his circle was reduced to a dangerously *low* number, and it is an open secret that this fact has been several times brought to the notice of the authorities by the Surgeon-General. In addition to the paucity of numbers, there is another serious evil present. The want of experienced officers. A reference to the last official Army List will show that out of 202 Medical officers in the Bengal Presidency no fewer than 96 are Surgeons of under five years' service, drawing the lowest rate of pay and that there are barely 50 senior officers available for duty. There are over 50 separate stations for European troops in the Presidency, which gives one Brigade-Surgeon or Surgeon-Major to each, leaving all the other duties to be carried out by Surgeons. Now, no matter how intelligent and zealous young officers may be, it is impossible they can have the experience and training necessary to qualify them for the

charge of a regiment. Yet, at this moment, there are many European regiments under the sole care of Surgeons of one or two years' service. It is impossible to suppose such an arrangement can be satisfactory to the military or for the welfare of the Service.

Another great want now felt in India by Medical officers, especially in large stations, is a mess. In former years, when nearly all Medical officers belonged to regiments, they all, of course, had their own messes to live in. These messes were granted an allowance of Rs. 150 per mensem by Government for the rent of their house, and when this allowance was given, there were four Medical officers, a Surgeon-Major and three Surgeons to each regiment. When Medical officers ceased to belong to regiments, the equitable course would have been to have taken a proportionate share of the mess allowance from each corps, and have given it to a Medical Staff mess; *e. g.*, suppose, in a station in which there were three regiments with a total of twenty-eight officers each, if one-seventh of the allowance had been deducted from each regiment there would have been a fair sum for the establishment of a Medical Staff mess. Batteries of R. A., consisting of five officers, draw a mess allowance, but fifteen Medical officers in a station get nothing. The result of this is, young Medical officers have to live in the most uncomfortable manner, and are not under the supervision of their seniors. When Medical officers come to new stations they have no where to go to, and must live in hotels till they can rent and furnish a bungalow. It is held by the military authorities that it is advisable for Medical officers to live at military messes; but the fact is quite lost sight of, or ignored, that many regiments now do not make honorary members. In one station alone, two regiments do not make honorary members, and the

third intimated that they had not dining room for all the Medical officers. At Rawalpindi, a Medical Staff mess has been established and is an excellent institution for the young officers. It is the duty of Government to establish a similar mess at all head-quarter stations and make an allowance proportionate to the strength of the Medical Staff. Indeed it is a shortsighted policy the authorities not doing so, as having no mess of their own, numbers of officers are drawn into matrimony far too young, the result of which is to make them less efficient, and put both themselves and the State to great expense, when being moved from one station to another.

The rank of Medical officers of the Army has been so much and so ably discussed during the past few months in the columns of the *British Medical Journal* that every member of the profession, at home or abroad, will be more or less familiar with the present state of affairs; still the subject must be to many, and to those unconnected with the Army especially, one of considerable difficulty, as it is hard to make those unacquainted with the details of a military life, understand how far the position and comfort of Medical officers depends on this very question.

It will be as well therefore to explain first what Army rank really is and how its non-possession affects the officers of the Medical Staff.

Rank, then, in its primary sense is used to differentiate the position of the fighting element in the Army, and extends in a well graduated line from the private soldier to the Field Marshal.

From private to Sergeant-Major, the ranks in the Army are, what is called, non-commissioned, while from the Lieutenant to the Commander-in-Chief, officers receive commissions from the Queen.

This is what is known as substantive, or combatant rank, which carries with it the privilege of command, so that the junior Lieutenant of the Army would invariably, in all military matters, *command* all officers of the departments of the Army, *viz.*, Commissariat, Pay, Medical, Veterinary, &c., no matter how senior to him.

This is a recognised fact, and is necessary to the discipline of the Army, and this privilege has never been questioned. Could an Army exist as a fighting body without the assistance of Commissariat, Medical, or other extraneous aid, no other rank than this substantive (or so-called combatant) would be necessary; but as an Army must be fed, paid and have medical and other aid provided for it, it is necessary that certain departments should be an integral portion of it. It would be manifestly inconvenient to have these departments of the Army purely civil, as officers and men, working with an Army, in barracks or in the field, must necessarily be subject to military discipline and have a defined Army position. To meet this there were two distinct ranks instituted (in addition to the purely military one) *viz.*, "honorary" and "relative." The former was, till quite lately, practically confined to Paymasters, who were then regimental officers, and frequently taken from the combatant ranks. This honorary rank conferred the title of Captain or Major, on the Paymaster, and was clearly understood by all. That is to say, he exercised his civil duties and enjoyed a military title, but held no command or military power whatever. The second of these (non-combatant) ranks, "relative" rank, was granted to all the so-called civil departments of the Army, including of course the Medical. It was clearly defined and understood, and though perhaps not always quite satisfactory to the holders, yet on the whole there was comparatively little friction in connection with it.

To make matters plainer "relative" rank conferred on Medical officers certain positions "relative" to the ranks held by the combatant branch, *e.g.*, a Surgeon ranked *as* a Captain, and was by this rank entitled to all the privileges accruing to such rank, with the exception of military command, and the presidency of Boards and Courts-martial. For instance, a Surgeon ranking as Captain, was entitled to choice of quarters in barracks, or cabin on boardship, as a Captain holding a commission of the same date. He was also entitled to draw lodging allowance at the rates laid down for Captains, and took his seat on Boards, or Courts-martial, as a member, according to the date of his commission. In fact "relative" rank defined his position in the Service and granted him rights and privileges of the most valuable nature.

It is not necessary to go further back than the Warrant under which Medical officers now serve, that of the 27th November, 1879, wherein it is laid down in para. 4 "that the relative rank of officers of the Army Medical Department shall be as follows" :—

"As Major-General"—"Director-General," "Surgeon-General" and so on, laying down the different ranks in the Army with which Medical officers held *relative* rank.

This system clearly defined the position of every one and though there was occasional friction, chiefly due to attempts to interfere with the privileges of the department, it may be admitted that, on the whole, it worked fairly well.

One great drawback there was, *viz.*, that a Medical officer had no defined military title. He was called the "Doctor" from the date of his entering the Service to the day he left; and though a Medical officer might retire as a V.C., C.B., Honorary Surgeon to the Queen, &c., he

carried into private life no higher military title than he had joined with, perhaps, thirty-five years before.

This anomaly was borne with, as it was felt it would be trenching on the privileges of the combatant officers to ask for more military designations.

Matters, however, soon began to change, and with the advance in our military organisation, the command of the Army Hospital Corps was conferred on the Medical officers, and at the same time, combatant titles were given to the Quartermasters of the Army Hospital Corps.

Thus Medical officers were in the extraordinary position of commanding large bodies of men, with officers under their orders holding military titles, while they themselves were merely "Mr." or "Dr."

The same anomaly was even more evident in the Commissariat Department, where the senior officers were all civil, and most of the juniors, military officers, with military titles, seconded in their regiments, and serving in the Commissariat.

It soon became evident that this state of things could not continue, and as a way out of the difficulty "honorary" rank was conferred on all the civil departments in 1885, with the exception of the Medical and Veterinary Departments. All officers of the Commissariat, Pay, Ordnance, and Educational Departments were granted military titles, and a Deputy Commissary-General, for instance, who had served for thirty years as "Mr." suddenly appeared in the Army List as a Colonel. Officers of the Ordnance Department who had spent their lives in an office issuing stores, and officers of the Pay Department who never had been more intimately connected with the Army than issuing its pay, were all stamped with military rank.

It was felt that this was a distinct levelling down for those who were still left with merely "relative" rank, and not only in the Army itself, but in the outer world, Medical officers were placed in a position of social inferiority to those to whom military titles had beeng iven.

It was naturally asked, why should a Medical officer who for, perhaps, thirty years, had served in all quarters of the world with soldiers, and shared their dangers in war, be left without any military designation, while paymasters and others who never go into action, and are, in fact, purely civilians as regards their duties with the Army, have received the stamp of the military guild, and are known to the world at large as Captains, Majors, &c.

Much as this was felt, the position was not questioned so long as Medical officers were left in undisturbed possession of that "relative" rank they covenanted for when they accepted the Queen's Commission. They were still officers of the Army holding a defined position, and in possession of a rank, which, though only "relative" yet was an Army rank and clearly indicated their position with reference to the rest of the Service.

On the 1st of January, 1887, in the year of the Queen's Jubilee, a new Royal Warrant appeared, in which the ranks and positions of all officers of Her Majesty's Service were again defined. In this new Warrant there appeared but two ranks, "substantive" and "honorary," and while all the departments but the Medical and Veterinary, were granted the second, *i.e.*, "honorary" or titular, these two were left out in the cold, and granted no rank whatever. In substitution for a clearly defined position, a position the department had uninterruptedly enjoyed for thirty years, Medical officers were set down as "ranking with" other officers of various grades: in

fact, they were reduced to the position of civilian camp-followers, without rank of any kind, while at the same time the other departments of the Army had been elevated to the possession of distinct military rank and titles. For a few weeks there was a pause, and men asked each other "What does all this mean?" Shortly afterwards, however, a *Gazette* appeared relating to the rank of Quartermasters, headed by the following ominous words: "relative rank having been abolished in our Army, &c."

The truth then became apparent, and a storm of indignation burst forth from the entire department. From the highest to the lowest there was but one opinion, that the authorities had again broken faith with the Service, and that there must be an instant and imperative demand for a restoration of these privileges. At this juncture the British Medical Association came forward to support the Medical officers, and by the action of its Parliamentary Bills Committee and in the columns of its journal, gave assurance to all interested, that their case was in good hands. The first step taken was a question put in the House of Commons, by Sir Guyer Hunter, to the Secretary of State for War, as follows:—

HOUSE OF COMMONS, THURSDAY, MARCH 3RD.

RELATIVE RANK OF ARMY MEDICAL OFFICERS.

Sir Guyer Hunter asked the Secretary of State for War whether, since the relative rank of the Medical officers of the Army had been abolished, what rank, if any, they now had in the Army?

Mr. Stanhope: A Medical officer holds the rank in the Army which his commission confers upon him; and under Article 125*a* of the Royal Warrant, it is provided that, for purposes of precedence, allowances, and widows' pensions, Medical officers shall rank with combatant officers as there laid down. As a matter of fact, the abolition of the term "relative rank" has not altered the position of Medical officers in any respect whatever.

The reply to this, being considered very unsatisfactory, was commented on in a leading article in the *British Medical Journal* of the 26th February which is reprinted below.

THE ABOLITION OF RELATIVE RANK AMONG ARMY MEDICAL OFFICERS.

The answer given by the Secretary of State for War, on Tuesday last, to the question of Sir Guyer Hunter, on the subject of relative rank, has caused something like dismay throughout the Medical Department of the Army. And no wonder. Mr. Stanhope informed the House bluntly that the relative rank of all departmental officers has been abolished by the recent Army Warrant, "medical officers retaining all the privileges previously attached to them." "In all other respects their position is the same." In other words, to put it plainly, this new Warrant deprives Medical officers of the only rank they had in the Army. Is it possible that any one, however ignorant—as no doubt Mr. Stanhope is—of military life, manners, and customs, can really suppose that the position of Medical officers deprived of their rank can be the same as it was? The Horse Guards may be able so to persuade civilians like Mr. Smith and Mr. Stanhope, but the whole Army will laugh at their simplicity. What evil demon has put it into the heads of the advisers of the Secretary for War to strike this blow at the status of a body of honourable officers, at the very time when the public has been awakened to the immense service they have rendered to the Army and the State?

After a long and weary struggle, content had been restored to the department, and young men of good social position believed they could find in its ranks an honourable and useful career; and, session after session, the teachers in our Medical schools saw a considerable number of their best men competing eagerly for appointments in it. This is the time selected by the wisdom of the authorities, in matters military, not only to awaken slumbering discontent, but with one stroke of the pen to cut off the supply of the very class of men it ought to be the earnest endeavour of wise rulers to attract into the Service by all reasonable means.

If you take away a Medical officer's relative rank and leave him only vague "privileges," his position in the Army and in military society will be intolerable. Truly, this measure comes with becoming grace from a branch of the Administration that, until shamed by public exposure and indignation, was contented to go on supplying bursting guns to our sailors and swords and bayonets to our soldiers that "bent like hoop-iron." But this must not be. If the old struggle for common justice and honourable treatment for the Medical official of the Army is to begin again; so be it. We call on all young Medical men who are casting about for a career, to look well to what they are about before they "take the shilling." We call upon their professors and teachers in the great schools throughout the kingdom to make the facts of the case plain to the young men who look to them for guidance. We call upon the great Medical corporations to protest against this retrograde and most unwise measure; and, lastly, it will be the part of the great Association whose organ this Journal is to use all the influence its members possess to save their brethren in the Army from this grievous injustice. The public have an interest in the Army. Is it their wish that the health of our soldiers in peace and war should be put into the hands of the incompetent, to be found in all professions? If so, let them, through their representatives in Parliament, sanction this measure; if not, the authorities must be made to know that as they will not allow their soldiers to fight with "hoop-iron" swords, so they are equally determined they shall have the best and most skilful medical and surgical attendance the country can supply.

The next step taken was through the action of the Parliamentary Bills Committee of the British Medical Association, by whose Chairman the following letter was addressed to the Secretary of State.

February 28th, 1887.

TO THE RIGHT HON'BLE E. STANHOPE, M. P., SECRETARY OF STATE FOR WAR.

RELATIVE RANK OF MEDICAL OFFICERS OF THE ARMY.

SIR,—I have the honour, as Chairman of the Parliamentary Bills Committee of the British Medical Association, to bring to your notice the painful impression which

has been aroused in the minds of the Medical officers of the Army, and of the Medical profession generally, by the recent announcement of the abolition of relative rank of Medical officers of the Army, and your reply, in relation thereto, to a question by Sir Guyer Hunter in the House of Commons. The Parliamentary Bills Committee of this Association has, as you are aware, on behalf of its twelve thousand members, taken for many years a deep interest in the welfare of the Army Medical Service; and has seen with great satisfaction, the advantageous results of the representations which it has made from time to time to previous Governments on the subject, and the excellent influence of the late Army Medical Warrants, in restoring contentment to the Service and in giving to it its present high efficiency.

The Medical profession, of which the great majority is included in the organisation which I have the honour to represent in this matter, see with great regret any proceeding which is likely to damage the reputation of the Army Medical Service in the eyes of the profession, and to injure its standing in the Army, believing that such changes cannot but be injurious to the welfare of the whole Service.

My Committee submit to you that in the Army there are three kinds of rank—substantive, honorary, and relative. The latter is the rank which Medical officers of the Army have long held. It gave them quarters, cabins at sea, precedence in military society according to their grade. With this the Service was content. On their uniform they carried the badges of their rank. In reply to a question from Sir Guyer Hunter you, Sir, stated in the House that the relative rank of Medical officers is abolished, but that this in no way alters their position or interferes with their privileges. This statement is not understood, and does not satisfy either the Medical profession or the Service. To those who are acquainted with military life it appears to be conclusively inferred from your statement that it leaves the Medical Service of the Army without any rank or position at all. The Pay and the Commissariat Departments have distinct honorary rank, and their position in the Army is secure, hence the official statement that nothing is really changed, only a name is changed, is not appreciated, for that name carries with it a definite meaning. If it was intended to leave matters as they were, it is not understood why the name has been abolished without substituting something equally distinct. It is well known that to make life tolerable in the Army, where rank is of primary consideration, officers, whatever their position, must have a definite rank which requires no laboured explanation. Unless Army Medical officers retain such definite relative rank, men such as the country has a right to see placed in medical charge of Her Majesty's soldiers will not enter the Army as Medical officers.

Army Surgeons are exposed to all the risks of war, and to others incidental to their profession. The Medical officers in Egypt, the Soudan, and Burmah lost more of their number through disease and wounds than any other branch of the Service in proportion to their numbers. Pay and Commissariat officers are not exposed to a tenth part of the risk that Medical officers run in war, as the records of all wars show. The Parliamentary Bills Committee of the British Medical Association therefore venture to express the hope that you will take this representation into very serious consideration, and will take such steps and give such assurances as will insure to the Medical officers of the Army that definite relative rank which they have hitherto enjoyed. The matter is one which has already excited active interest in the Medical schools and colleges from which the Army Medical Service is recruited, and I venture to hope that you may be able to afford me a satisfactory reply to the representation which it is my duty to make to you on this subject.—I have the honour to be, Sir, your faithful servant, ERNEST HART,

Chairman of the Parliamentary Bills Committee.

Exhaustive leading articles, and numerous able letters from Medical officers, appeared weekly in the pages of the *British Medical Journal.* The following reply was next received from the Secretary of State addressed to the Chairman of the Parliamentary Bills Committee, reprinted below with the comments of the Editor of the *British Medical Journal.*

WAR OFFICE, PALL MALL, *March 9th*, 1887.

SIR,—I am directed by the Secretary of State for War to acknowledge your letters, dated severally 28th February and 7th instant, relative to the disuse of the term "relative" rank in the case of officers of the Army Medical Staff.

In reply, I am to acquaint you that, during the recent discussion upon the subject which took place in Parliament, the Secretary of State gave full expression to the views which he holds thereon, and I am to call your special attention to the statement that the abolition of this term of "relative" rank has not affected the position of Medical officers in any way whatever.—I have the honour to be, Sir, your obedient servant.

RALPH THOMPSON.

Ernest Hart, Esq., British Medical Association, 161A, Strand.

"Sir Ralph Thompson's reply leaves the case exactly where it stood, and nothing can be more unsatisfactory. It will be seen that the Under-Secretary treats the term 'relative rank' as a mere 'expression' that never had any real meaning, or in any way affected the position of Army Medical officers; and he repeats the assurance given by his superior in Parliament, that the position of the Service is in no way affected by the abolition of relative rank. To all this the answer is obvious; the term was never understood in the Army in the sense indicated by Sir Ralph Thompson; the contrary is notorious, and we have the best reason to know that, in the opinion of military men, its abolition leaves Army Medical officers without any tangible status at all. What they say is, 'Relative rank is abolished by a War Office Warrant, a binding document; what is substituted is a verbal promise or assurance on the part of a War Minister, in no way binding on officers in command, who may either disregard it, or put any interpretation they please on it.'

"We have done our duty in calling attention to what, all assurances to the contrary notwithstanding, appears to us, and to officers of great experience, to be a blow struck at the Medical Staff of the Army, a great discouragement to its officers, and an affront to the whole profession. In this light we regard it still. Only two explanations of this unwise measure are possible, and the War Office must make its choice between them. Either it was intended to gratify combatant officers at the expense of the Medical Staff, or it was a bit of bungling administration; if the first, it was a mean conception, meanly carried out; if the second, it adds one more to the blunders, failures, and exposures which daily startle the public and bring the military administration into well-merited contempt.

"Whether or not the leaders of the profession, or any of them, have interposed on behalf of their brethren in the Service, we are not in a position to say. It is probable that if anything of the kind was done, the 'explanations' of the War Office sufficed to satisfy them. One voice that would have been uplifted is, alas! silent in the grave. When Ranald Martin established himself in London, on his return from India, a friend of his, a modern Mr. Worldly Wiseman, asked him 'if he wished to succeed?' 'Certainly,' was the reply. 'Then,' said Mr. Worldly Wiseman, 'cease to be the advocate of your profession in the Army.' 'Sir,' was the prompt rejoinder, 'I do not want success on such a condition.'

Following this letter, a deputation of the Parliamentary Bills Committee waited on the Secretary of State for War, the following being an account of the proceeding:—

In accordance with the arrangement announced last week, Sir Guyer Hunter, M. P., who had been in communication with the Chairman of the Parliamentary Bills Committee on the subject, introduced on Tuesday last a deputation to the Secretary of State for War (Mr. Stanhope) at the House of Commons, to confer with him as to the question of relative rank. The deputation consisted of Sir Guyer Hunter, M. P., Dr. Farquharson, M. P., Dr. Cameron, M. P., Dr. Clarke, M. P., General C. Fraser, M. P., Colonel Duncan, M. P., as representing the Parliamentary Bills Committee (in the absence of the Chairman, Mr Ernest Hart), Dr. Alfred Carpenter (Croydon) and Mr. Francis Fowke attended. There were also present Mr. C. Macnamara, late I. M. D., and Surgeon-General Maclean.

Sir Guyer Hunter, in introducing the deputation, said Mr. Stanhope had been good enough to give him a private interview with reference to this question of relative rank, which materially affected the prospects and welfare of the Medical Staff Corps, and therefore, he did not intend to enter into any details himself on the subject, preferring, that they should be brought more particularly to the notice of the Secretary of State for War by others who were intimately acquainted with the subject, and who would speak on behalf of different interests. In the first place he would ask Surgeon-General Maclean, who had an intimate acquaintance, in consequence of the position he had occupied at Netley as Professor of Military Medicine, with the hopes, wishes and prospects of the Medical Staff Corps.

He would ask Dr. Alfred Carpenter, who was Acting Chairman of the Parliamentary Bills Committee of the British Medical Association (representing nearly 14,000 members of the medical profession), to say something on the subject; and Mr. Macnamara, who probably would also be disposed to speak, would represent the Indian Medical Service, which was indirectly interested in this great and momentous question.

Surgeon-General Maclean said he had held the office of Professor of Military Medicine in the Army Medical School at Netley since the year 1860, and that had given him an opportunity of being very well acquainted with the feelings of the Army Medical Service on this, as on a great many other matters; as he stood in the position of a teacher to them, there was not the least doubt that they would speak and write to him with a freedom which they would never think of using in communicating on a subject of this kind with their official superiors. Without any further preface he would enter at once, in as few words as he possibly could, into the question of relative rank. In the first place, it was said on very high authority that relative rank never meant anything—that it was a mere "term," a mere "expression." He (Surgeon-General Maclean) had had nearly half a century of experience, both in the Indian Army and in the Army at home, and he could say most distinctly that this was never the impression or the belief on the part of any Medical officer in the Army, either at home or in India. With a very large acquaintance with military men nearly every member of his family being a combatant officer—he was able to speak with confidence on this point. It was, indeed, the only rock on wich Medical officers stood. Relative rank was that which gave Medical officers whatever rank they held in the Army, and that rank was now abolished. There were now only two ranks in the Army: one substantive, the other honorary. Medical officers in the Army had neither one nor the other, and, as relative rank was abolished, they were practically left without any Army position at all. He was quite aware that paragraph 125*a* of the Army Warrant conferred certain privileges, and that a Medical officer was said to rank *with* a Captain, a Major, or whatever it might be; but his experience in India led him to see that all sorts of officials ranked exactly in the same way: a telegraph officer had his position defined as ranking *with* a

Captain, and a member of the Civil Service, according to his standing, ranked also *with* a military officer of a certain rank; but that carried no military rank or position at all. He had conversed on this point with a great many eminent military officers, who shared his belief that relative rank being abolished, nothing remained which would give a Medical officer any position at all. The position of Army Medical officers under these conditions was very peculiar. The command of the Army Hospital Corps was confided to them, and their position was this: a Quartermaster in the Army Hospital Corps had honorary rank; non-commissioned officers, warrant officers, sergeants, corporals, or what not in that Corps had, so far as it went, substantive rank. They were, in a strictly military sense, literally the Medical officer's superiors. That is what appeared to them (the deputation) a very important point. The next point was, that the Medical Staff of the Army now felt themselves to be placed in a position distinctly inferior to the officers of the Pay and Commissariat Departments. It was not for him to say anything against those whom he regarded as a highly honorable and useful staff of officers. He would say, however, that the Medical officers of the Army had to face the risks of war to a far greater extent than those of the Pay and Commissariat Departments. Surgeon-General Maclean spoke of the large number of young Medical officers who had distinguished themselves at the Army Medical School, who had been cut down in the exercise of their duty in recent wars; and, as an example of many others, instanced the case of Dr. Langdon, who, at Majuba Hill, when mortally wounded, made his way to an unfortunate man who was screaming with pain caused by a very severe wound, and administered to him a hypodermic injection of morphine to allay his suffering, and immediately died. Surgeon-General Maclean spoke of the many risks he had himself incurred in battle, of the comrades who had been shot by his side and literally died in his arms, and how he had been exposed, in passing a line of the enemy, to a long and continuous fire. He would ask to be excused for mentioning these facts; they were honorable risks, and Medical officers were proud to face them. But he felt it to be a very great grievance that when they were called upon to run such risks they should be treated as if they had no Army position at all. He would go so far as to repeat what a very distinguished officer said to him a few days ago: "Under this new

Warrant, Medical officers are reduced to nothing more or less than a superior class of camp-followers, with no position at all." That, he assured Mr. Stanhope, was the feeling which pervaded almost the whole Service. He (Surgeon-General Maclean) had had some experience in a matter which had a very important bearing on the subject. A very satisfactory Warrant came out after the Crimean War, which was the outcome of the Royal Commission presided over by Lord Herbert. This Warrant placed the Medical officer on a footing which gave entire satisfaction. But the ink was hardly dry before clause after clause was nibbled away, until nothing remained. The result of this was that the best men in our Medical schools would not enter a service so constituted, and they succeeded only in getting what he might term the *residuum* of the profession. So inferior were many of the men he spoke of (having been one of their teachers) that the late Professor Parkes, who had done more for the health of the Army than any man that ever lived, was obliged to bring the matter before the Medical Council of Education. He had that morning been told that in the greatest Medical school of this country, that of Edinburgh, where there were nearly 2,000 Medical students, more than half of them being Englishmen and men from the Colonies, so great a sensation had been created by this unhappy measure, that many of the best men had declared that nothing in the world would induce them to enter a service where they would be placed in so ambiguous a position. A very distinguished officer and a very old friend of his, whose son was about to compete for the service, had told him that no consideration in the world would induce him to allow his son to enter the service, where his position would be so uncertain. In conclusion, Surgeon-General Maclean said that, the authorities having now declared in the most positive manner that relative rank was a mere term, having no value at all, it would never satisfy the Army Medical Service to have relative rank restored to its former position. The Medical officers of the Army rendered great services to the State, and he thought it was only fair that they should respectfully ask to be placed on the same footing as the Pay and Commissariat Departments.

The *Secretary of State for War* expressed his inability to understand what was meant by "relative rank." Was it contended that relative rank was actual rank?

Surgeon-General Maclean said it was the only rank Medical officers ever had. They had no Army position, but what relative rank gave. It formerly gave them all they wanted, and the term, having in the Army a distinct and definite meaning, was well understood by all military officers. Every privilege he had enjoyed in the Service was derived from that rank.

Doctor Alfred Carpenter, Mr. C. McNamara, General Fraser, Sir Guyer Hunter, and Mr. Clarke, M. P., also spoke, when the Secretary of State for War replied as follows:—Sir Guyer Hunter and gentlemen,—I have listened with a great deal of interest to what has been said by the various distinguished members of the profession who have addressed me, and I can assure you that I have not the smallest wish to undervalue the great services which we all know have been rendered by the profession in past time, nor for one moment do I underrate the strong feeling which I know exists among the Medical profession on this subject, whether based on good grounds or not. But I should like to assure you on the part of the War Office (though I myself was not personally concerned with the issuing of the Warrant), that it was not in the least the intention of the War Office to alter the position and precedence of Medical officers in the Army. I do not doubt that every gentleman here really believes that he has lost something in status or position; but though I have listened with the utmost care to every word which has been said, I must say I am very much puzzled now to know what the Medical officer has lost. One thing I should like to say in consequence of what has fallen from General Fraser, that I think he can hardly be aware of paragraph 125*a* of the Warrant, by which Medical officers rank for the purpose of precedence, pensions, etc.—Surgeon-Major with Lieutenant-Colonel, Brigade-Surgeon with Colonel, and so on. I admit (even if it is not quite easy to explain what the actual loss may be) there is a sentiment at the bottom of it all, and sentiments are things to be reckoned with very much in these days. What I will undertake to do is to consider very carefully indeed the terms of the Warrant, and see whether we cannot, in re-draftng it, take care so to word it that it shall be made pretty clear that you have not lost anything whatever by the change which has been introduced into the Warrant.

Sir Guyer Hunter having thanked the Secretary of State for War, the deputation withdrew.

Commenting on the above, the *British Medical Journal* remarked as follows :—

"There was one part of Surgeon-General Maclean's speech which, we think, will commend itself to the Service. He pointed out that as relative rank had been declared on the highest authority to be a mere term, with no definite meaning, to restore that meaningless term would never meet the justice of the case; and he respectfully asked that in the matter of honorary rank, the Medical Staff of the Army should not be placed in a position inferior to that of those who feed and pay the Army."

At the same time the Editor of the *British Medical Journal* announced that he had received numerous letters and telegrams from India and the Colonies, all approving in the highest terms of the action of the Association and its Committee.

Retired Medical officers of the Royal and Indian Medical Services were not slow to give their assistance as appears below. The following letter on the subject of relative rank, which bears the signatures of a number of well-known and influential retired Medical officers of the British and Indian armies, has been addressed to Mr. Ernest Hart, as Chairman of the Parliamentary Bills Committee.

EDINBURGH, *March 31st*, 1887.

SIR,—We, the undersigned retired Medical officers of Her Majesty's British and Indian Armies, desire to express our thanks to you as Chairman of the Parliamentary Bills Committee of the British Medical Association for the prompt and vigorous action taken on behalf of the members of the Medical Departments of the British and Indian Armies.

Knowing from personal experience the importance to Medical officers, both in camp and in garrison, of distinctive and officially recognised rank (by whatever term it is designated), we desire to express our opinion that, both socially and officially, they will be injuriously affected by the abolition of "relative rank;" and in the interest of the members of the Medical Departments and of the military service generally, we hope that the cause so ably advocated by the deputation to the Secretary of State for War will receive the favourable

deration of Government.—We are, Sir, your most obedient servants.

A. CHRISTISON, M.D., *Surgeon-General.*
JAMES W. WINCHESTER, F.R.C.S., *Eng.' Deputy Inspector-General.*
GEORGE ANDERSON, *Deputy Inspector-General.*
HUGH CLEGHORN, M.D., LL.D., *Deputy Inspector-General.*
EDMOND HOILE, M.D., *Brigade-Surgeon.*
J. B. FLEMING, M.D., *Deputy Inspector-General.*
H. R. OSWALD, M.D., *Surgeon-General.*
J. FRASER, M.D., C.B., *Surgeon-General, Honorary Physician to the Queen.*
W. WATSON, M.D., *Deputy Surgeon-General.*
C. H. FASSON, *Deputy Surgeon-General.*
F. J. BARKER, M.D., *late Madras Medical Staff.*
J. SANDERSON, *Deputy Inspector-General of Hospitals.*
J. KIRKPATRICK, M.D., *Deputy Surgeon-General.*
ANDREW FLEMING, M.D., *Deputy Surgeon-General.*
JOHN PRINGLE, M.D., *Deputy Inspector-General.*
J. M. HYSLOP, M.D., *Surgeon-Major.*
PATRICK HERON WATSON, M.D., F.R.C.S.E., F.R.S. Ed., LL.D., *late Assistant Surgeon, Royal Artillery, Surgeon-in-Ordinary to the Queen in Scotland.*
GEO. MACKAY, M.D., L.R.C.P.E., M.R.C.S.E., *Deputy Surgeon-General.*
R. J. BLAIR CUNYNGHAME, M.D., F.R.C.S., Ed., *late Assistant Surgeon, Prince Consort's Own Rifle Brigade.*
DANIEL MACQUEEN, M.D., *Deputy Surgeon-General, retired.*
ALEX. HUNTER, M.D., F.R.C.S.E., *Surgeon-Major.*

The next step in the contest was taken by the Secretary of State in the following communication :—

RELATIVE RANK.

The following important letter has been addressed by Sir Ralph Thompson, Permanent Under-Secretary, to Dr. Alfred Carpenter, who is acting as Chairman of the Parliamentary Bills Committee of the British Medical Association, during the absence from England of Mr. Ernest Hart :—

SIR,—With reference to your interview with the Secretary of State on March 22nd, on the subject of the abolition of relative rank in the case of officers of the Army Medical Department, I am directed to inform you that Article 125*a* of the Army Warrant of December 31st last will be altered, as shown in the enclosure.

Mr. Secretary Stanhope has been anxious in every reasonable way to meet the views of the very influential deputation which waited upon him, and he trusts that the alteration now made, after consultation with the Director-General of the Army Medical Department, will remove any misconception in the matter above referred to.—I am, *etc.*,

RALPH THOMPSON.

Pall Mall, London, April 12th, 1887.

PROPOSED ALTERATION OF ARTICLES IN THE WARRANT AS TO RANK.

125*a*. Officers of Departments of our Army not having honorary rank, shall rank as follows for purposes of precedence and other advantages attaching to corresponding military rank ; but this shall not, except as provided in Articles 265, 348, and 307*a*, entitle them to military command of any kind, to the presidency of Courts-Martial, Courts of Inquiry, Committees, or Boards of Survey, or to precedence in their own departments over officers holding a superior departmental rank.

Departmental Officers.

As Major-General—

Chaplain-General.
Director-General, Army Medical Department.
Surgeon-General.

As Colonel—

Chaplain, 1st Class.
Deputy Surgeon-General.
Principal Veterinary Surgeon.

As Lieutenant-Colonel—

Chaplain, 2nd Class.

Brigade-Surgeons, ranking among themselves according to their commissions as such.

Surgeon-Major, after twenty years' service, or under twenty years' service if allowed to rank as Lieutenant-Colonel under Article 420, for distinguished service in the field junior to all Brigade-Surgeons.

Inspecting Veterinary Surgeon acting as Principal Veterinary Surgeon in India.

Inspecting Veterinary Surgeon, but junior of the rank, except for choice of quarters.

As Major—

Chaplain, 3rd Class.

Surgeon-Major, under twenty years' service, except as provided in Article 420.

Veterinary Surgeon, 1st Class, after ten years' service as such, or under ten years' service if allowed to rank as Major under Article 420, for distinguished service in the field, but junior of the rank, except for choice of quarters.

Veterinary Surgeons promoted to the 1st Class prior to 15th May, 1883, as laid down in Article 384*a*.

As Captain—

Chaplain, 4th Class.
Surgeon.
Apothecary.
Captain of Orderlies.
Clerk of Works, 1st Class.

Veterinary Surgeon, 1st Class, under ten years' service as such, except as provided in article 420.

As Lieutenant—

Surgeon on probation.
Veterinary Surgeon.

This proposed change in the wording of the Warrant of the 1st of January, though no doubt a concession to the powerful pressure brought to bear on the Government in behalf of the Medical Service, was at once declared by all concerned to be totally inadequate, as it left the officers of the Medical Staff without any defined rank in the Army; and though it preserved to them certain material advantages, yet left them in a position distinctly inferior, not only to all combatant officers, but also to the other departments of Her Majesty's Service.

The following article then appeared in the *British Medical Journal* of the 23rd April :—

In our last issue we published without note or comment the letter of Sir Ralph Thompson, Permanent Under-Secretary of State for War, to the Chairman of the Parliamentary Bills Committee of the British Medical Association. This letter gave the proposed alteration of the Articles in the Warrant as to rank of departmental officers. It is with great regret we have to express our conviction that the proposed alteration is not adequate. It is no doubt a concession to the representations of the Committee ; but it is very doubtful whether it will be accepted by the Medical officers of the Army after all that has occurred. The War Office was at pains to discredit "relative rank," and to assert, in effect, that it was a mere "term" having no meaning ; and this in the face of a fact patent to anyone who has in his possession an Army List of older date than the Warrant which has caused this commotion. There, immediately above the name of the Director-General of the Medical Department, the following notice is printed in italics :—"The second date opposite an officer's name is that of his relative rank," and yet the term "had no meaning." It does not appear in the "proposed alteration," yet in point of fact the "alteration" is in fact "relative rank" restored ; the thing the deputation that waited on Mr. Secretary Stanhope assured that gentleman could never now meet the justice of the case, inasmuch as it had been repudiated and discredited by the highest authority. The proposed alteration leaves the Medical Department of the Army in a position distinctly inferior to that of the Commissariat and Pay Departments—a class of officers who, as the deputation was at pains to show, are not exposed to a tenth part of the risks that Army Medical officers have to face in war, more especially in the wars against half-civilised nations in which this country is almost always engaged. It is to us a matter of keen regret that Mr. Stanhope has not seen his way to put an end to this agitation at once and for ever by an act at once just and expedient, doing what sooner or later must be done, namely, giving with a good grace honorary rank to the Medical Department, and so placing it on a footing of equality with the two other "non-combatant" departments, whose claim to a superior rank will not bear investigation for a moment. We trust Mr. Stanhope's

last word has not been spoken, that the "alteration" is in reality only "proposed." The present aspect of the case will be considered at a meeting of the Parliamentary Bills Committee early next week, when the representations of leading members of the Service, on the whole subject of relative and honorary rank, will be considered, and further proceedings taken. The reply given to a question in the House of Commons by the Under Secretary of State for India on the rank, of Medical officers of Her Majesty's Indian Army, appears to show that the India Office, since the Royal Warrant was issued, considers that these officers have no rank at all. This is the only possible meaning of the answer given. When a Royal Warrant is issued in England conferring any advantage of pay, as in the case of Brigade-Surgeons, the India Office is quick to declare that such Warrants have no effect in India, unless adopted and promulgated by the Government there. It appears, however, that when a blow is struck by a Warrant, issued at home, at the status and position of Army Medical officers, it is to be immediately acted upon in India, and deemed binding without the formality of official recognition and promulgation by authority there. It would, in our opinion, be most dangerous to the future of the great Medical Service of India to allow judgment to go against it by default. It was retired Medical officers of the Army of India who were the first to see the real meaning of the insidious abolition of relative rank, and the action of the India Office in the matter has more than justified their fears. In the Journal of April 9th, we published a letter from a number of retired Medical officers of both Services, men of standing and experience, who, in expressing their thanks to the Parliamentary Bills Committee of the British Medical Association for the prompt and vigorous action taken on behalf of the Medical Departments of the British and Indian Armies, say :—"Knowing from personal experience the importance to Medical officers, both in camp and in garrison, of distinctive and officially recognised rank (by whatever term it is designated), we desire to express our opinion that, both socially and officially, they will be injuriously affected by the abolition of 'relative rank.'" How far this temperate expression of opinion by a body of retired officers, who have now no personal interest in the matter, will influence the Secretary for India, we do

not know. But we do know that it is the duty as well as the manifest interest of the great Medical Corporations throughout the Kingdom to be up and doing in aid of the efforts of the British Medical Association and its Parliamentary Committee. It will be nothing short of a lasting disgrace to them if they sit still, and without remonstrance allow their brethren in India to be quietly relegated to the position of camp-followers, not much better than that of the "leeches" who served at Cressy and Ajincourt.

As regards the Medical Service of India, we request our readers to note the time selected for this enlightened measure—the close of the nineteenth century. We ask them to observe further, that hardly a number of this journal issues from the press without carrying with it to the whole profession evidence of the great work the Medical officers of India are doing, not for their own countrymen only, great as that is, but also for the two hundred millions of our native fellow-subjects, among whom they are spreading a knowledge of the healing art in its latest and most advanced developments. The duty of the teachers in our schools and universities is plain enough. They are morally bound to do all they can to protect the interest of the young men who look to them for guidance. It is their business to let the authorities know plainly that if it shall be their pleasure—knowingly or ignorantly, as the case may be—to heap contempt on a body of cultivated men, whose services are indispensable to a well-governed State, they will ere long have to content themselves with the residuum to be found in all professions, and that when the inevitable "break down" follows, they cannot in justice join in the cry of execration sure to arise against the men of their own deliberate choice. Students of medicine, of a class fit to be entrusted with the costly lives of soldiers at home or abroad, "in camp or garrison," are wise enough to know that "men do not live by bread alone;" and when they come to see that the bread offered in India has to be eaten with bitter herbs, they will look elsewhere for a more honourable career than it is the present pleasure of the India Office to offer.

In the same number of the journal was republished a Minute of Lord Dalhousie's, one of India's greatest

Statesmen, which shows the opinion of an unprejudiced mind on this subject.

The injustice of relative rank: opinion of Lord Dalhousie, late Governor-General of India.

Lord Dalhousie, when holding the appointment of Governor-General of India, gave expression in a Minute upon the Medical Service, appended to the Report of the Parliamentary Committee, to the following forcible observations, which have a particular significance at the present time:—

"There are several particulars in which the Medical service as a body lies under great disadvantages, and which they regard—justly, in my opinion—as grievances, which ought to be removed. I refer to the inequality which now prevails between the position of the Medical officer and that of his brother officers in respect of pension, honour, and rank. I respectfully submit that such inequalities are founded on no sound grounds of justice, expediency or policy; no valid reason ever has been, or can be, alleged for maintaining them. Their effect is to depress the spirit of the Medical officers, to depreciate a profession and class of service which ought to be held with utmost respect, and supported equally from motives of prudence and gratitude.

"But the most galling, the most unmeaning and purposeless regulations, by which a sense of inferiority is imposed upon Medical officers, is by the refusal to them of *substantive* rank. The Surgeon and Assistant-Surgeon rank invariably with Captain and Lieutenant; but the rank is only *nominal:* whenever Medical officers and others are brought together on public duty, the former have no rank at all, and the oldest Surgeon on the list must, in such case, range himself below the youngest Ensign last posted to a corps.

"It is impossible to conceive how such a system as this can have been maintained so long, on the strength of no better argument than that it has been, and therefore ought to be! It is impossible to imagine what serious justification can be offered for a system which, in respect to external position, postpones service to inexperience, cunning to ignorance, age to youth; a system which gives

a Subaltern, who is hardly free from his drill, precedence over his elder ; a system which treats a member of a learned profession, a man of ability, skill, and experience, as inferior in position to a cornet of cavalry just entering on his study of the pass and audit regulations ; a system, in fine, which thrusts down grey-headed veterans below beardless boys."

In continuation of this subject the *British Medical Journal* published the following article on honorary rank on the 30th April :—

HONORARY RANK.

The more the present unsatisfactory position of the Medical Service of the Army is considered, the more it becomes apparent that two courses—and two only—are open for the settlement of the question. One is to make the Service a purely civil one, not only in name but in reality ; the other is to maintain its present military organisation, and to give to its officers honorary rank, without which it is becoming daily more evident that military organisation will not work. So long as the regimental system lasted, relative rank was a workable system ; and, if far from perfection, it sufficed, the amount of friction being at least bearable. Now that this system is abolished and another has been substituted for the plan adopted at the end of the great Napoleonic War, namely, scattering the British Army in regiments and parts of regiments at home and in the Colonies, the old regimental Medical organisation has become an anachronism at once costly and unworkable. It is useless, therefore, to discuss its revival here, and even were this possible, relative rank, having been reduced to a mere classification, is out of court altogether. The War Office is therefore shut up, as we have said, to one of two courses. A large number of Army Medical officers would be glad to serve simply as civilians, if they were satisfied such a system would work, not only for their own honour and comfort, but for the well-being of the sick and wounded committed to their charge.

The first objection to the purely civil system is one that would arise in the Treasury—it would be nearly twice as costly. It is quite certain that if the Medical Staff of the Army are to cease to be officers, they must have compensation in the shape of better pay. Young

Medical men are attracted into the service under the impression that holding commissions in Her Majesty's Army, they have an honorable position in that Army : as civilians only attached to the Army, this attraction, call it sentimental if you please, would be taken away, and a money one must take its place. This consideration alone would be fatal to it. But this is not all. Take away the military organisation of the department, and the authorities can have no possible right to ask civilians to go under fire or expose themselves to the thousand risks which Military Surgeons daily run, without a thought, in time of war.

Again, this scheme would need a reorganisation of the Army Hospital Corps. Experience has proved that unless the Medical Staff of the Army have the command of this body of men, for whose work they are responsible, the machine will not work. Convert them into civilians, pure and simple, and they cannot exercise the command proved to be indispensable ; the resource is the introduction of a military command element, and the result, friction, inefficiency, and confusion, to the detriment of the sick and wounded. If Army Surgeons with the advantages of these commissions, and such other privileges and considerations as their relative rank gave them, have found the discharge of their duty to be always difficult, and often almost impossible, what in all the hurly-burly and tumult of battle-fields would be the position of a body of helpless gentlemen in plain clothes ? Any one who has the most superficial knowledge of the duties the Medical Staff of an Army have daily to perform must know that a civil system cannot possibly work.

Turning to the other alternative, namely, honorary rank, we say, after much consideration, it is the only possible one the War Office, by its own action, has left. The difficulties Army Medical officers had to face, even when relative rank was believed by themselves and the Army generally to be something real, were very great ; now that by a War Office Warrant it is declared, in the face of the whole Army, to be a mere classification, we sincerely believe its restoration, even if that is contemplated, which we greatly doubt, would in time of war leave the Medical Staff of the Army in a condition as helpless as that of the civilians we have just described. We have before us as we write the evidence of a Medical officer of years and experience, a war-bred man, and this, in a few words, is his

testimony :—"Sick and wounded men are no doubt a great encumbrance to an Army; in a certain sense it would be an immense advantage to a commander if, after a battle, he could leave the latter to die where they fall, or with the former take Napoleon's short and ready method of dealing with them, as this blood-stained man did with his own on his retreat from St. Jean d'Acre—send them to sleep where they cease from troubling. Unfortunately for this summary method of getting rid of sick and wounded, their doctors, and other impedimenta, the public conscience is a little sensitive on the treatment of sick and wounded soldiers, and even great commanders, when they think the 'doctors are wanting in initiative,' are not above joining in, if not raising, a cry of execration if a complaint is made that a field hospital has not all the means of the Royal Victoria Hospital, Netley, for their solace and comfort. The result of my experience is this: if Army Medical officers are to be, as they are now, held responsible for the various military duties now demanded of them, they must be given military rank, call it honorary if you please, but such as can be seen and known, and respected by all with whom they have to do; without this, life on service is a grievous thing; it is nothing but an incessant struggle for the rights which even relative rank is supposed to give, a struggle not only for their own rights, but the rights of those committed to their charge. Army Warrants are not very intelligible to those not immediately concerned with the rights they confer, and others can always affect ignorance of them when it suits either their purpose or their temper. This it is, above every thing else, which makes it absolutely neceasary, in the interests of the sick and wounded officers and men, that those who are responsible for their right treatment, comfort, and safety, should, once and for all, be placed in a position that admits of "no mistake."

Again, in a leading article in the issue of the 7th May, the following remarks appeared :—

Much may be hoped from the action of the Parliamentary Bills Committee, but that Committee should not be left alone in its efforts. The feeling in the department is evidently widespread and profound, but it should not evaporate in words. In another column, in commenting on one of the many letters which have been addressed to us, a course of action is suggested by which Medical officers

can thus aid in bringing home to the profession at large their strong feeling on this matter. To do this, they must move first in the Corporations, next in the branches of the British Medical Association, and last, but perhaps most important of all, in the Medical Schools of Great Britain. The method by which this course of action may be practically carried into effect is detailed on page 1019, and we particularly direct the attention of Medical officers to the suggestions therein conveyed. The Parliamentary Bills Committee will carry on the fight, but to ensure success, it must receive the obvious support of the official bodies and the outspoken declarations of the great body of Medical students from whom the Army Medical Service is to be recruited.

The course of action alluded to is as detailed below :—

It is to be anticipated that great opposition will be made to this claim by the Horse Guards. The Parliamentary Bills Committee and the Journal have won many brilliant victories for the public services in the past, and will endeavour to fight this battle not less effectually; but it is very doubtful whether they can succeed unaided in view of the formidable opposition by which they are likely to be met. The aid of the Medical Schools, Colleges, and Corporations should be invoked. Let every Medical officer, who has this question at heart, at once communicate with leading persons in his own Medical Corporation and in his own school; especially in the latter, with the deans, house-surgeons, and leading students. Full explanations should be given, and meetings of the students held in every school, at which retired Medical officers conversant with the facts should attend, and suitable resolutions should be passed. We shall be glad to hear from Medical officers proposing to take this course, with information as to the dates of any such proposed meetings or copies of any correspondence addressed to the Corporations and Colleges, and of any proceedings consequent thereon. If desired, we will have the recent leaders on the subject reprinted from the Journal: or a committee formed in each city of retired Medical officers, to co-operate with our Parliamentary Bills Committee, might communicate with Mr. Ernest Hart, Chairman of that Committee, who will assist with documents and suggestions.

This is how the matter stands at present, and it now rests with the great Medical profession to say whether

nearly a thousand of their brethren, serving under the Crown, are to be deprived of the rank bestowed on them when they received Her Majesty's Commission, or whether they are to be placed in the position, with regard to the rest of the Army, that they are clearly entitled to.

Rank in the Army is necessary to all, to none more than the Medical officer; and it is now for the great profession, to which Medical officers belong, to see that they obtain their just rights once and for all.

To civilians the question must be a difficult one, but this much is patent to all that to work and live without rank among a body of men holding a defined Army rank, is an impossibility. Medical officers must have rank of some kind; that which they held till lately has been abolished, and none has been conferred in its stead, while, on the other hand, all the other Civil Departments have had defined "honorary" rank conferred on them.

It is frequently argued that because Medical officers are professional men holding degrees and diplomas, they should not receive any military designation; that is to say, because a Medical officer enters the Army, plus his education and degrees, he is therefore to be kept in a lower social position than men who enter the service as untrained boys. The Medical officer's profession is his own property, and he is in no way under any compliment to the State for it; why then should he be placed in a distinctly inferior position, both in a social and military sense? because he is a higher educated man than the pay or store officer. Logically there is not a single argument worthy of the name *per contra*, while expediency, justice, and necessity, point to the other conclusion.

Sooner or later, with the advance of more liberal opinions, this question will be settled in the manner that common sense suggests; then the public and the Army will wonder why there was so much opposition given to such a manifestly simple method of allaying discontent, and

placing the Medical Staff of the Army in the position necessary for the due performance of its onerous and responsible duties.

There are many other minor matters to complain of, but the above will show that the present needs of the officers of the Medical Staff in India are briefly as follows:—

1. A clearly defined rank, which will indicate to the rest of the Army their true position in it.

2. Extension of the Warrant of 1879 to India.

3. The grant of forage allowance to all Medical officers.

4. The grant of "travelling" or "detention" allowance when absent on temporary duty.

5. An increase of strength in India, specially in the senior ranks.

6. A fair proportion of leave yearly.

7. The establishment of messes for Medical officers.

(14)

A REPORT

ON

RELATIVE RANK:

BEING A REPRINT FROM THE
"BRITISH MEDICAL JOURNAL" OF THE ANALYSIS OF
STATEMENTS BY MEDICAL OFFICERS OF
THE ARMY MEDICAL DEPARTMENT OF THEIR
VIEWS ON THE RANK QUESTION.

TO BE OBTAINED AT THE
BRITISH MEDICAL JOURNAL OFFICE,
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1887.
Price Threepence -

ANALYSIS OF STATEMENTS BY MEDICAL OFFICERS OF THE ARMY MEDICAL DEPARTMENT OF THEIR VIEWS ON THE RANK QUESTION.

We are now in a position to place before our readers some analyses of replies received up to date to the questions on the subject of rank submitted to officers, home and Indian, of the Medical Department of the Army.

One thousand five hundred and twenty-five forms were circulated to 373 officers at home, and 1,152 abroad, serving on the Active List. Replies, which continue to be received daily, have up to date been returned from 722 officers of the following ranks: Surgeons-General, 4; Deputy Surgeons-General, 14; Brigade-Surgeons, 38; Surgeons-Major, 159; Surgeons, 503; Quartermasters, 4. Three hundred and sixty-seven replies have been received from abroad, and 355 from home stations.*

The answers have been classified under numbers and ranks, according to the proposals voted for, but without names, for obvious reasons. We may remind our readers that the following five Proposals, A, B, C, D, and E, were submitted.

A. Substantive Army Rank, as Major-General Medical Staff, Colonel Medical Staff, etc., such rank not to carry military command, except within the Medical Department itself, etc.

B. Titular Army Rank, as Surgeon Major-General, Surgeon Colonel, etc., carrying the precedence and advantages of corresponding rank in the Army, but not military command, except, etc.

C. To be commisioned as Surgeon and Major-General, Surgeon and Captain, etc. Titles to be Surgeon-General, Surgeon Lieutenant-Colonel, etc. Such commissions to carry the precedence and advantages of the purely military title, without, etc.

D. Honorary Rank—Surgeon-General as Major-General, etc., carrying precedence, etc., but not entitling to military command, etc.

E. Not having Honorary Rank, to rank as follows for purposes of precedence and other advantages attached to corresponding military rank, but not conferring any military command, etc.: Surgeon-General as Major-General, etc.

The officers were asked to state which of these proposals they considered the medical profession should use its influence with the Government to adopt, giving reasons for the proposals they approved, as well as arguments against those they rejected; further, to place the proposals in the order they should be placed as regards worthiness of support; and, lastly, to suggest any other practicable scheme which might occur to them.

* At the time of republication the number of answers received amounted to 905.

The replies received are, in the vast majority of instances, perfectly clear and definite, and have been classified as follows :—

Proposal	A	only, or first in order	...	307
,,	B	,, ,,	...	63
,,	C	,, ,,	...	61
,,	D	,, ,,	...	218
,,	E	,, ,,	...	37

These figures yield the following approximate percentages :—

For Proposal	A	=	43.60
,,	B	=	9.50
,,	C	=	9.29
,,	D	=	32.10
,,	E	=	5.60

It thus appears that A, Substantive, and D, Honorary Rank, command between them the primary adhesion of three-fourths of the voters ; while E, the only so-called rank at present possessed by the Department, is primarily supported by only between 5 and 6 per cent., and even then with important reservations, as we shall afterwards point out.

We shall analyse the voting under each proposal (affirmatively stating the case, as it were, for each, without prejudice, or committing ourselves to the views advanced), commencing with A, giving fair samples of the "suggestions" offered, and "reasons for decisions" given in the words of the officers themselves.

The 307 voters for Proposal A are of the following ranks : Surgeons-General, 2 ; Deputy Surgeons-General, 6 ; Brigade-Surgeons, 14 ; Surgeons-Major, 74 ; Surgeons, 156 ; Quartermasters, 3 ; no name or title given, 52. The above, it will be seen, embraces representatives of all ranks—senior and junior—in fair proportion to the numbers in each rank actually serving. It is significant that, notwithstanding assurances of the strictest confidence, one-sixth of the whole withhold both rank and name. We can only conclude these gentlemen, although feeling strongly and decidedly on the subject, are afraid to risk their names, or do not give them from a sense of discipline ; but whatever may be the explanation, we invite the attention of the Director-General to the fact, over against his complaint that grievances and remonstrances are not readily poured into his official ear.

A large proportion of the A voters will have nothing to do with the other proposals either in the order of "worthiness" or otherwise ; not a few even say that failing A let them be made "civilians" pure and simple, as in the following example.

25 A. Surgeon : "Nothing but military rank can give assured status in the army.....Other titles clumsy, not generally understood. .....Failing A to be made civilians with all advantages. Surgeons under three years' service to rank as Lieutenants."

But in all such replies it is easy to see the "civilian" alternative is but the language of disgust and despair, for many who use it add that a civilian Army Medical Department would be an utterly impracticable absurdity.

A large number maintain that a surgeon should serve during the first three years in the rank of Lieutenant, present rates of pay and allowances being specially secured. We think there is much to be said in favour of this suggestion, which should be well considered in any reorganisation of the department.

58 A. Surgeon-Major : "(1) Royal Surgeons ; (2) Lieutenant, Captain, Major, etc., to be substantive ; (3) Rewards as combatants ; (4) Seniority as a corps, not a department ; (5) Motto, 'Semper et ubique Fidelis.' All officers on joining should rank as Lieutenant for three years. The granting of rank of Captain on joining has made many enemies.

"Equal, if not greater risks in campaigns, command their own men, and frequently other branches of the service ; alone gives status understood in the army. Titular rank as Surgeon-Major useless, titles clumsy, give no status, always called Brown, Jones or Robinson by last joined subalterns ; is only departmental grade, honorary rank not good enough ; ought not to follow Commissariat, etc.

"B. and C. clumsy and not understood."

"D. and E. absolutely and utterly worthless."

62 A. Surgeon-General says : "Because we command our own men, bear all the hardships and dangers of war ; it would give a definite social position not possessed at present ; would not interfere with any other branch of the service. Because others are unwieldy and unsuitable. This proposal meets all the requirements of the service.

"Nothing short of absolute and substantive rank as military officers will remove the present widespread sense of great injustice, unworthy treatment, and a wish to regard medical officers as inferior to all others, although their duties, responsibilities, and dangers are inferior to none. A discontented Medical Department is bad for the service and very expensive, the supply must become limited and inferior, and men go on half or retired pay at the earliest moment. It is bad for the medical profession, but much worse for the army, who depend upon the medical aid available in the field and in all climates."

There are many replies of a similar character to the above : the weighty words of the Surgeon-General, indeed, summarise the replies of a great number of his junior brethren. The vast majority—especially of the juniors—emphatically assert their determination not to submit to the "unworthy treatment" which seeks to regard "medical officers as inferior to all others," and it is very certain that in this determination they are fully backed up by the profession at large, and by all fair-minded men of whatever profession.

The following examples illustrate the argument of many who, in advocating *bond fide* substantive rank, logically see thrt such would only be granted in connection with a corps organisation, and that such can only be brought about by a complete fusion between the Medical Staff and Medical Staff Corps ; the officers would then be officers of a corps and not officers in a department.

8 A. Surgeon suggests : (1) A Royal corps, like the Royal Engineers ; (2) discontinue the word 'non-combatants ;' (3) medical officers on joining to be commissioned Lieutenants, not Captains, but present rate of pay to be guaranteed.

"Our duties identical with those of regimental officers ; we are practically combatants, our risks and hardships in war are equal, military titles cannot possibly make us better or worse 'Drs.' than we are, and we should not be mistaken for what we are not, any more than our paymasters, etc. ; would raise the status of medical officers, and bring the best class of medical men into the service.

"B. Gives only 'corresponding,' namely, a kind of relative rank, and will not do.

"C. Titles cumbersome, and signify nothing on retirement.

"D. Entitled to something better than the rank of schoolmasters.

"E. Out of the question."

16 A. Surgeon : "(1) Convert Medical Staff and Corps into the 'Corps of Royal Surgeons,' 'Royal Medical Corps ;' (2) officers for the first five years to have subaltern's rank instead of Captain ; present rate of pay ; (3) should the War Office argue that as a 'Royal Corps' they could not draw Staff allowances, their rate of pay should be secured by drawing 'Surgeon's' pay as 'Engineer's' pay, etc. 1. Dr. or Mr. being the only designation attached to officers of the Medical Staff, except in purely official correspondence, there is no means of distinguishing between the rank of a veteran and that of the newfledged Surgeon ; this applies to our relations with the rest of the

army when at public entertainments. I have known instances where a Major was given the precedence before a departmental Surgeon-General and Principal Medical Officer, and again of a senior Brigade-Surgeon; this is galling to officers who have served for years in the army, and expect to see their rank recognised and respected. 2. Military rank necessary for discipline and control; Quartermasters enjoy privilege of distinct military rank. 4. That honorary rank must be a privilege is shown by the fact of its being readily granted to other departments and received by them with joy and avidity. 5. When we retire we have nothing to show that we have passed our whole life in the army, and perhaps gone through many campaigns.

"B. A compromise should only be accepted in the event of A. being refused.

"C. Too cumbersome.

"D. A distinct unit in the military organisation of the country; should share in the same as the rest of the army.

"E. An insult to our honourable corps."

22 A. Surgeon-Major: "Suggests 'Royal Medical Staff,' as 'Colonel Smith, Surgeon, Royal Medical Staff.' Military rank absolutely necessary for military duties imposed upon medical officers. The titles in 'A.' short, well understood in military and civilian society, calculated to stop all jealousy, to guard against unintentional slight in military and civil society, would smooth army life to the medical officer, raise his professional standing, bring numbers of good men into the department, and cause no extra expense to the Government.

"B., C., and D. too long; would resolve into Dr.; to civilians and many soldiers would have no meaning, as 'Deputy Surgeon-General' and 'Surgeon-Major' have at present; would cause mistakes in civil life; would not give to the medical man the status due to his profession in the army.

"E. Would never be accepted by the medical profession of the army."

220 A. Brigade-Surgeon: "Every effort should be put forth to make them a Royal Corps on the same lines as the Royal Engineers."

240 A. Deputy Surgeon-General: "Call them Medical Staff Corps. It is the corps they command; thus, Colonel F., Medical Staff Corps. Only rank known to the world.

B. "Open to the same objection as our present titles.

C. "They are simply shams."

In examining the foregoing "suggestions" and "reasons," it may be asked, is there any valid objection to the complete fusion of the present disjointed Medical Services into a corps, on the "same lines as the Royal Engineers." None we have ever heard; nothing, indeed, but a ruling of the War Office (which we venture to call absurd), that the officers would thereby lose staff and have to accept regimental allowances. We cannot help regarding this contention as a sort of official subterfuge. Surely a Royal Warrant can create, if need be, as well as define! If it can secure special rates of pay and allowances to the Royal Engineers, why not to a Medical Corps. Let any one turn to Article 190 of the Pay Warrant (1882), and he will find that officers of the Royal Engineers receive, in addition to "ordinary" pay as regimental officers, special "engineers" pay as professional men; again, Paragraph 877, Allowance Regulations (1884) shows that these same officers are differently treated from other regimental officers in the matter of servants' allowance. Such precedents are fatal to the War Office contention, and we have not the least doubt but that if the will existed, a way would be found to secure adequate pay and allowances, by Royal Warrant, to a Medical as well as to an Engineers Corps. Then, supposing such a corps organised, what should be its title? Whatever it might be, we think it should have

the prefix of "Royal." Her Majesty has no more faithful and loyal servants than in her medical service, and it would be a gracious recognition, both of them and their profession, were she to grant it a Royal title.

A consolidated corps with a Royal title would, moreover, effectually put an end to the term "non-combatant," which, as applied to the medical service in a disparaging manner, is at once both insulting and untrue. The real truth is, that this term, having in itself an interpretation and application reasonable enough, has become thoroughly offensive in the mouths of a certain section of the army, who, regardless of fair play, apparently wish to establish a sort of "fighting caste," which shall monopolise all rank, honours, and rewards to the exclusion of those who equally share in the privations and dangers of field service. We have even heard that attempts have been made to fasten the term "non-combatant," offensively on the men of the Medical Staff Corps; and have been told that not long ago, at the non-commissioned officers' mess at Netley Hospital, the rank and status of the senior staff sergeants of the Medical Staff Corps were sought to be set aside by placing over them a junior so-called "combatant" non-commissioned officer, who in the particular instance happened to be a staff clerk. "Any stick good enough, etc.!"

Although the foregoing selections clearly indicate the views of those officers who consider substantive rank the only solution of the vexed question, we will give a few more, which, while showing a very significant unanimity on the general question, furnish a few fresh suggestions in detail.

30 A. Surgeon-Major. "Must have substantive rank, or let us be civilians and never go to war. Because medical officers are as much fighting men as many so-called combatant officers.

"B. Too long.

"C. Fairly good.

"D. Not enough.

"E. Has no meaning."

56 A. Surgeon: "In the army every officer should have rank, and without rank it is impossible for a gentleman to exist in it."

94 A. Surgeon: "Without military rank we are exposed to insults and disrespect from the soldiers; it would remove petty jealousies and causes of discontent at present existing. Best men would be attracted to the service; State would be benefited by increased efficiency. This system works well in Continental armies.

"B. Clumsy and valueless.

"C. Unnecessary.

"D. Honorary rank not deemed sufficient.

"E. Given to civilians."

124 A. Surgeon-Major: "Considers that Proposal A would meet all their wants and give them a recognised position in the army, and would not in any way alter their professional ambition or zeal. He submits that they should be made regimental officers of their own corps (and not staff officers as at present) with a Royal prefix: "Royal Surgeons," or Royal Medical Corps. If staff allowances taken, they should be restored in the form of extra duty pay, as with the Engineers. Without military titles can never have any position in the army; at present mere camp-followers, thought less of than our own quartermasters. We command our corps, we learn drill, military law, etc., but are not recognised as military officers, but as outsiders. As doctors pure and simple, we are made to feel that we are not in the field. All other proposals useless, clumsy, and inferior."

131 A. Surgeon. "Because our present position in the service is intolerable. I think proposal A. meets all the requirements of the

case, for the reasons stated in the circular. The fact of Medical Staff coming after Captain or Colonel, shows we have no wish to ignore the honourable profession to which we belong.

"B. would not be used, very little improvement on our present condition.

"D. for same reasons as stated on circular."

210 A. No name or title. "Medical officers undergo more than the risks of so-called combatants in war and peace; their existence as an integral part of the military machine is absolutely necessary for the maintenance of discipline, the preservation of health, and therefore efficiency; they are the only officers in the army whose place cannot be filled on an emergency by other officers; without true army rank, the profession can never have, as it never has had, a satisfactory position in the army; its recognition in the army will greatly tend to raise the civil profession socially.

"Other titles proposed would be unwieldy and expose the department to ridicule.

"E. would leave us practically unchanged."

246 A. Surgeon. "Only rank soldiers understand; definite rank will remove all jealousy and want of concord at present existing, which is fomented by the want of assured rank, and is entirely of War Office origin; the only rank which will be of use on retirement and has been found to work well in the American army.

"B. and C. never be of practical use, much too clumsy.

"D. open to same objections.

"E. useless."

276 A. Deputy Surgeon-General. "No other would give us any real position; have to exercise more command than either the Commissariat or Pay Department. Should be either soldiers or civilians."

300 A. Deputy Surgeon-General. "Medical officers share all the dangers and hardships of campaign with other officers, have the discipline, interior economy, and management of the Medical Staff Corps, as well as the management and discipline of large bodies of soldiers as patients in hospital; nothing but military rank and title give assured status, command respect and authority, and prevent contentions and disputes on boards, and other mixed assemblies of military and medical officers; more associated with soldiers in the performance of their duties in times of peace and war than either officers of Ordnance, Commissariat, and Paymasters; and in peace even than Engineer officers, who once were looked on as a civilian corps, as we are ourselves, and called the 'Scientific' Corps.

"Other titles clumsy, non-appellation useless, and of no distinctive military value; merely departmental, and their value not appreciated or understood by anyone, not even by soldiers.

"D., rank given to officers whose duties are of a civilian character, who have not the management of large bodies of men, and who do not share the hardships and dangers of a field and hospital.

"E., objected to for same reason as Example 1."

We could give many more extracts of similar tenor, but the above may be taken as thoroughly representative of the great mass who vote for Proposal A.

We now come to state the case for the 63 voters under proposal B., in the same manner as for A. The numbers voting are by ranks:

Deputy Surgeon-General	1
Brigade-Surgeons	3
Surgeons-Major	12
Surgeons	29
Quartermasters	1
No names or titles given	17

As in A., the above numbers proportionately represent the various ranks, but the percentage withholding both name and rank is higher.

Here, also, the opinions expressed for and against the different proposals are clear and definite.

Of the two leading arguments advanced in favour of proposal B., the first is that it would preserve the distinctive professional title in combination with the definitive military rank; the second, that it would not arouse the jealousy certain to follow the grant of titles purely military; further, the usual negative reason is urged that it would be far more likely to be granted than either A. or D.

The following are fair specimens of the reasons for supporting B.

1 B. Surgeon. "Would answer admirably all requirements, and would not sever professional titles which should have precedence.

"A. unfitted for medical officers, and would cause discontent among combatants.

"D. no rank or status.

"E. same as D."

3 B. Surgeon-Major. "More dignified and honourable to preserve professional title, while the addenda of Major-General, Colonel, Lieutenant-Colonel, Major, and Captain, ensures without doubt military status. Two of these titles already exist; in time people will become accustomed to the others. More agreeable to be recognised at once, than to be obliged to enter into an explanation with outsiders.

"Considers it lowering to the dignity and honour of the profession to assume purely military titles. All military and professional status would be secured by adopting the compound titles under B., and the medical officer's position would rest on a firmer basis."

11 B. Brigade-Surgeon. "Gives definite and titular rank, and indicates status in the army as well as membership of the medical profession.

"A. would be misleading, and some medical officer would sink his profession in his love for the military title.

"A modification of proposal B., with following rank:

"Surgeon-Major-General = Surgeon-General.

"Surgeon-Brigadier-General = Deputy Surgeon-General.

"Surgeon-Colonel = Brigade-Surgeon.

"Surgeon-Lieutenant-Colonel = Surgeon-Major, over 20 years' service.

"Surgeon-Major = Surgeon-Major.

"Surgeon-Captain = Surgeon.

"The two first ranks would indicate administrative duties. Colonel's rank given to Brigade-Surgeons would put that class of officers more on an equality with military officers of corresponding rank. A regimental Lieutenant-Colonel becomes Colonel in a few years, whereas Brigade-Surgeons may rank with Lieutenant-Colonels for ten years or more."

45 B. Surgeon-Major. "Title concise and not more than sufficient. Definite military rank absolutely necessary for the efficient performance of medical duties in military life: to indicate the status socially to which they are entitled. Prefixing the professional title will prevent any confusion as to the military part of the title, and remove all ground for jealousy. The title, moreover, will indicate the limits within which the purely military duties and privileges will be exercised.

"The assumption of and insistence on inferiority of caste of medical officers which underlies the attitude of combatant officers (as also of the higher military authorities) can be effectually and finally removed by a wider public opinion compelling the War Office to grant ppropriate military titles."

49 B. Surgeon-Major. "Defines the officer's rank and retains his professional title; would give no cause of jealousy.

"A. and D. pure military titles undesirable in the interests of the department or service. Would be a source of ridicule and jealousy.

Considers professional titles quite as honourable as military ones, and military titles are only wished for by those who wish to pass for what they are not."

52 B. Surgeon. "Every army man (combatant or non-combatant) must have recognised rank, from a private to a general, as is at present the case through all branches of the service, except the Medical Staff.

"A. too military; would create jealousy among the combatant branches."

25 B. Surgeon. "Considerable likelihood of its being granted. Titles sufficiently clear to let everyone know what a man's rank was. After a short time doubtless the titles (two of which, Surgeon-General and Surgeon-Major, are now in use), would become quite familiar.

"E. Simply out of the question.

"A. It would be a mistake to adopt titles which would completely mask our medical titles.

"The Director-General should rank at least as a Lieutenant-General."

35. B. No name or title. "It gives sufficient eminence to professional, whilst conferring substantive military rank sufficient for command of Medical Staff Corps, which requires a military organisation, especially in field service, where touch of engaged forces has to be maintained. Is a recognition of the risks which a medical officer has to undergo incident to his military duties at all times and in all parts of the empire to which it is his duty to proceed at the command of his chief, and in which he shares the dangers and has to meet the fate of the British soldier.

"A. misleading, and would place medical officers in a false and undesirable position, and lay them open to ridicule.

"D. honorary rank would be confined to official intercommunications, and would not be applied socially, and is open to to objections as A.

"E. is not yet understood."

43. B. Surgeon-Major. "Military rank clearly defined and laid down beyond dispute is most necessary and essential, prevents friction, and tends to efficiency and economy of labour. The professional nature of the Department should be plainly marked, to prevent mistakes and annoying explanations in social life. B. makes the happiest combination that is possible, and is more likely to be granted.

"Other titles misleading and delusive. If other departments bear sham titles, it is no reason we should do the same. I consider that honorary rank should be abolished for all departments, and relative rank substituted."

There is unquestionably much to be said against "severing" the professional from the military title—much for combining the two.

The title or designation of Surgeon is purely civil, conferred on the holder by civil corporations under Act of Parliament, carried into the army as a qualification for certain duties, but entirely unmilitary, and conferring no military status or rank whatever; but, as army surgeons have military commissions and are under martial law, it is essential that, as officers, they should have military status. The great question is, therefore, what should be that status, and by what title should it be expressed. Voters under B. say it would be best set forth by a hybrid title, beginning, probably, with Surgeon-Lieutenant, and ending with Surgeon Major-General.

This starts the question whether hybrid titles do not already exist, and whether their further development is desirable. 3 B. and 25 B. properly point out that they are employed in the titles Surgeon-General and Surgeon-Major, and there can be no reasonable objection to the use of the intervening military titles. No doubt; but the

military titles must designate the actual rank, and the Surgeon-General become Surgeon Major-General, and the Surgeon-Major Surgeon Lieutenant-Colonel, after twenty years' service.

These titles, though clumsy, and at first sight somewhat uncouth, would soften down in time, and they have the merit of clearly indicating officially the military status of medical officers.

But, on the other hand, supporters of proposals A. and D. very pertinently retort such hybrid titles are theoretically all very well, but would in no way actually remove the civil and social disabilities which sadly handicap the army medical officer; such titles would only be used in official communications; being unpronounceable big mouthfuls would never be got at in civil speech or in society, or if attempted to be used, would only prove a source of mistake or ridicule, and would finally melt down into the universal "doctor." Actual experience, we fear, lends no little force to this retort. We have heard of a very high civic dignatory who, in landing a distinguished Surgeon-General, alluded to him as *Sergeant*-Major ——, and when audibly corrected by a friend, begged pardon of the *Sergeant*-General for misnaming him. Such blundering over military titles, hybrid or otherwise, seems inevitable and ineradicable among civilians in this country. When even simple military titles are ill understood, hybrid ones, we fear, would be of small civil or social advantage to medical officers, however clearly to the initiated the military status was defined.

This was the Lord Mayor of London + Surg General Munro C.B.

11 B. fears that were military titles granted "some medical officer would sink his profession in his love for the military title;" possibly, but the same fears have been expressed over the sinking of the professional portion of the hybrid title. There are foolish, vain, and perverse men in every calling who might abuse any rank, title, or privilege; but that is no argument against granting what is right and just to the great majority endowed with sense and discretion.

As to the "jealousy" likely to be aroused in the granting of definitive medico-military rank, we fear, from what we can learn, that it is all but unavoidable in certain sections (happily small) of the combatant ranks. The question is more one of minimising than altogether preventing friction. Time, education, and common sense will, in the end, extinguish mean and unworthy jealousies and prejudices, although, in the meantime, it is hard for an honourable body of the Queen's servants to put up with them.

The 61 votes under C. are of the following ranks.

Brigade-Surgeons	4
Surgeons-Major	21
Surgeons	25
No name or title	11

The difference between proposals B. and C. lies in the wording of the commissions; medical officers under C. would be gazetted both as Surgeons and as holders of definitive military rank, the two being combined by the conjunction "and." The titular rank would be hybrid, as in B. In C., the military rank being set forth in the commission would be more emphasised, and it would therefore be next to impossible to set it aside, or whittle it down in ambiguous warrants afterwards. What are the arguments for C?

1 C. Surgeon-Major. "Because the corresponding military rank being embodied in the medical commission cannot be so easily tampered with. 'Surgeon' being the unalterable departmental designation, he would make the titular gradation a prefix: Captain-Surgeon, Major-Surgeon, Colonel-Surgeon, etc., as in the case of those who reach the grade of General: Brigadier-General, Major-General, Lieutenant-General. The 'General' being a grade is an affix, not a prefix.

"B. and E. insecure. D. as A. C., to merge ultimately into A. or D."

4 C. Surgeon-Major. "Might be granted; would give a combined medical and military title, with defined rank; ought not to cause any jealousy.

"Would favour an amalgamation of C. and D., namely, titles as in B. or C., with honorary rank as in D. (not carrying the title). This would be more readily granted than either C. or D. singly; and would give suitable rank with defined military rank. Honorary rank is as much as we can expect, and would be sufficient. With simple honorary rank as in D., a higher grade than Colonel will not be granted; see present Commissariat and Ordnance Departments. This scheme would suit the remaining departments of the army, namely, Chaplains and Veterinary Surgeons, equally well. Surgeons under five years' service should have the honorary rank of Lieutenants.

"A. would never be granted. It is real combatant rank and title, which essentially implies command up to an army in the field, without which it is abused.

"B. appears to be only a change of title, and little improvement on present condition. D. Military title objectionable. E. Gives no rank in army."

"9 C. Surgeon-Major. Gives distinctive and military rank. A medical officer should not drop his professional title. This combines the professional and military titles, and is in keeping with the present Surgeon-Major.

"A. would do away with professional titles, cause confusion, and be distasteful to many medical officers. Has no true objection to proposal D., as medical title need not be disused. E. gives no rank."

16 C. No name or title. "Seems to show most clearly that our medical title is of more importance than the military one, and to me appears to represent our true position and rank best.

"A. gives undue prominence to our military rank, which, to my mind, is merely secondary to our professional qualification. None of the others seem on the whole so suitable as C.

"Thinks, whether the proposals put forward be accepted or not, they should have 'relative rank' altogether done away with, as it is an empty term."

18 C. Surgeon-Major. "Clearly defines actual military rank; the prefix, 'Surgeon,' shows him to belong to the medical profession.

"Under it a surgeon is commissioned as a Surgeon and Captain, and his rank and privileges as such cannot be called in question. If the dual title or commission be objected to, I believe a parallel case might be cited as the Lieutenant and Captain of the Foot Guards, who in his own corps ranked as a Lieutenant, but his secondary rank putting him on a par with captains of the line in his dealings with them allowed him his due privileges as such.

"A. bearing a purely military title objectionable.

"B. conferring titular rank only, less defined and advantageous than under proposal C.

"D. would increase the existing discontent amongst the purely combatant element, on another non-combatant branch (in addition to those already as privileged) being allowed to assume these misleading titles as to the status of the holders. E. confers no rank at all."

20 C. Surgeon. "Will give medical officers defined position in the army; will retain the distinctive professional title; is likely to be granted—three of the titles are in common usage at the present time. It seems more than any other the vexed question of the hour; we have status as professional men, we require status as military men; combatant officers are jealous for in that bereft of their rank they are 'nobodies.'

"A. likely to meet with opposition, might be assimilated to Royal

Engineers as Major Royal Surgeons. B. not so good as C., which gives the actual commission as Captain, Major, etc., and so giving no room for doubt. D. be pressed if C. fail. E. We have been told relative rank means no rank at all. Rank is essential to a military officer.

"The reversing of the titles would be more euphonic, for example, Captain-Surgeon, Major-Surgeon, Colonel-Surgeon."

31 C. No name or title. "Since medical officers serve everywhere, and there is never a battle fought without a medical officer being present, I think that the time has come when we should be improved in position by a purely military title.

"A. will never be given to medical officers, and is not wanted. B. is certainly clumsy. D. will never do now. E. has no rank at all; may as well put us in plain clothes and call us civilians.

"Give a Surgeon on joining rank of Lieutenant, and, after five years as such, make him a Captain. This is where the shoe pinches more than anywhere."

"35 C. No name or title. "Medical officers, being without rank, are practically branded as being inferior to combatant officers. They have all the work, dangers, etc., of other officers, with the professional work in addition. Certainly more entitled to real rank than Paymasters, etc.

"A. would not be granted, and we should be accused of trying to sink our profession. B. cumbersome and unmeaning. D. not sufficient, but better than present. E. makes us camp followers (not to be tolerated).

"*Remarks.*—It is absurd for the Director-General to state that nobody ought to mind complaining to him about the present want of rank. To anybody knowing the ways of the Service, the idea of a junior officer going to the head of the department and stating views diametrically opposite to his is ludicrous in the extreme. Shortly afterwards he might want some favour from him; what would be the chance of getting it, even if he were not punished in a more direct way?"

40 C. Surgeon. "The wording of our commissions would ensure our rank in the army as Captains, etc., and our titles would prevent our sailing under false colours.

"A. and D. No purely combatant titles should be given to any but combatant officers.

"B. Rank not ensured.

"E. No rank at all."

61 C. Surgeon. "Would give recognised army rank without dissociating us from our professional titles. The nature of our duties requires some well-understood military status. At present the Quartermasters and non-commissioned officers of the Medical Staff Corps rank above us from a military point of view.

"All the other titles are either clumsy or would dissociate us from our professional titles.

"E. Utterly useless, and is what we have at present."

The above will show that the arguments for C. are thoroughly well put, and are much of the same tenor as those for B. They may be summed up in the concise reasoning of 1 C., "Military rank being embodied in the medical commission cannot be so easily tampered with;" and of 40 C., "in B. rank not ensured."

The 218 voters for "Honorary rank" under D. are classified as follows:

Surgeons-General	2
Deputy Surgeons-General	7
Brigade-Surgeons	12
Surgeons-Major	48
Surgeons	126
No name or title	23

All ranks are here proportionately represented; the anonymous voters are considerably lower than in the preceding lists.

The arguments in favour of Honorary Rank may be arranged under four heads as follows:

1. It should be conferred because titular military rank is the only thing which gives status in the army.

12 D. Surgeon. "Titular rank, the only thing which gives status in the army. This rank is given to non-combatant officers of the Pay, Transport, and Educational Departments. Medical officers have command of large bodies of men.

"B. The titles are clumsy and would not be used.

"E. gives no rank in the army, and is granted to civil servants in India.

"A. is good, but would not be granted, and would cause jealousy among the combatants."

21 D. Surgeon. "Military rank alone gives a recognised status in the army; we could not reasonably expect substantive rank, but this honorary rank would make us equal with the other departments of the army, such as Pay and Commissariat Staff.

"A. should be reserved for the fighting branches of the army, namely, Line Regiments, Cavalry, Artillery, and Engineers.

"B. Titles would be too lengthy. Even now we never address our Surgeon-Major as such in conversation. Fancy Surgeon Lieutenant-Colonel, etc."

32 D. Surgeon. "In the army a medical man is an officer, and should, therefore, have an officer's rank, apart from his profession."

49 D. Surgeon-Major. "This rank is more likely to be granted; titular rank is the only one that gives status in the army, and I can see no reason why it should not be granted medical officers.

"I prefer proposal A., but it is not likely to be granted.

"B. titles clumsy and very inconvient, and would not carry the weight as purely military titles.

"E. gives no rank in the army."

81 D. Deputy Surgeon-General. "Military titles alone carry weight in the service. We hold an inferior position in the army to Pay, Commissariat, and Ordnance Departments, since honorary titles have been given to these departments to induce men to enter them.

"All others worthless. Double titles are never used, except in official correspondence. Our titles should be unmistakably indicative of our rank.

"There are only two ranks—substantive and honorary; the former for combatants, the latter for departments. If not granted the latter then emancipate us from military control and make us civilians."

134 D. Surgeon. "I believe proposal D. is likely to be granted; but, if so, it will solve the difficulty, as titular rank gives status in the army; also it will place the Medical Staff on equal footing with the Commissariat and Pay Departments, etc.

"A. not likely to be granted at present; it is too advanced and revolutionary.

"B. and C. have not same value as purely military titles; the titles would not be used except when addressing you officially, as they are clumsy.

"E. gives no rank whatever in the army."

211 D. Surgeon. "Consider titular rank is all that is necessary to maintain our position, as we have already been granted precedence. Life unbearable in the Army Medical Staff without honorary or titular rank; can see no reason for withholding it.

"A. not likely to be granted; B. won't do at all; should gain nothing by it.

"C. won't do.

"E. places a noble profession in a very inferior position."

2. Having been granted to other non-combatant departments in lieu of relative rank, it should be given to the Medical Staff.

1 D. Surgeon-Major. "Honorary rank having been granted to other non-combatant officers, there is not only no reason why it should not be granted to medical officers, but it is absolutely necessary that it should be, in order that they also may have a distinctly recognised status in the army.

"A. medical officers no right to expect purely military titles and rank (unassociated with departmental ones) any more than non-combatant officers of other departments.

"B. and C. no better or worse than present titles associated with honorary rank.

"E. relative rank cannot be reverted to after the contumacy cast on it by the War Office."

9 D. Surgeon-Major. "Since relative rank has been abolished, some rank must be given as in Commissariat and Ordnance Departments, as we are charged with the discipline of the Medical Staff Corps, and our own quartermasters have honorary rank; we should not be graded with Chaplains or Veterinary Surgeons, as they exercise no command.

"Do not think we should ask for proposal A., the other titles in B. and C. are clumsy."

59 D. No name or title. "Honorary rank a recognised institution given to Pay and Commissariat Departments, also to quartermasters, riding masters, and combatant officers on retirement. Titular rank is the only thing understood by public outside the service.

"B. and C. useless, as they do not confer titles understood by the public.

"E. involves no change."

"A. would be best if we could get it, but it would be strongly opposed by combatant officers."

67 D. No name or title. "Honorary rank is granted to Commissariat and Ordnance Store officers, and to Paymasters, and as relative rank has been abolished, ought to be given to medical officers.

"Medical officers to be granted honorary rank carrying precedence and all advantages, except military command, etc., attaching to corresponding substantive rank; and to be officially designated:

"Surgeon and Honorary Major-General."

"Surgeon and Honorary Colonel, etc.

"Officers under three years' service to be Surgeon and Honorary Lieutenant.

"A. not likely to be granted. Have no objection to B. and C., but think honorary rank would meet the case."

91 D. Surgeon. "It is given to all the other non-combatant departments of the army, and ought to be conferred on the officers of the Army Medical Department.

"A. substantive rank inappropriate for non-combatants, who are distinguished by honorary rank.

"B. clumsy; no use in the army.

"C. preferable to B., and might meet with success.

"E. would be reinstating relative rank, which is now only of value to those not in the army."

127 D. Surgeon-Major. "Reasonable, and likely to be granted, and is what we have been asking for since relative rank was abolished, namely, honorary rank to put us on an equality with the other departments. Its being granted should not cause any jealousy on the part of purely combatant officers.

"A. is beyond the range of possibility.

"B. and C. are clumsy and unnecessarily double titles, and not of equal value to honorary rank.

"E. is out of the question and gives no rank whatever.

"Proposal A. would be feasible, but at present honorary rank is the only thing possible on the same lines as in the Pay Department, etc."

179 D. Surgeon. "Would give medical officers a definite position in the army which the restoration of relative rank would not do, as it means 'nothing,' and for other reasons given in 'examples.' The present position is unbearable.

"A., B., C., and E. are objectionable for reasons given in example."

3. Honorary rank being cheap, costing only a clause in a Warrant, is likely to be granted, and therefore should be asked for; it would not cause jealousy.

5 D. Surgeon. "The only proposal of those given likely to be granted. Medical officers ought to have a recognised status in the army irrespective of their medical qualifications or attainments.

"Should medical officers not be granted the same rank and status as the other officers in departments, that we should cease to be military officers and merely look on ourselves as civilians attached to the army for professional duties.

"A. not likely to be granted.

"B. titles clumsy, and I doubt if they would be used.

"E. does not give a distinctive title."

23 D. Surgeon. "Honorary rank is the only rank we are likely to get which gives status in the army. As it is already granted to purely non-combatant officers of the Pay, Commissariat, and Ordnance Departments, there is no reason why it should not be given to Army Medical Staff.

"A. should be reserved for purely combatant officers who may command mixed bodies of men.

"B. and C. titles are clumsy; do not carry the same weight as purely military titles, and practically would not be used.

"E. carries no rank in army at all, and is granted to civilians in no way connected with the army."

34 D. Surgeon. "It is more likely to be granted, as it is already possessed by other departments. There is no reason, as it does not involve expense, why medical officers should be refused it, if the majority desire it. A titular rank is necessary to carry weight, and the words 'Medical Staff' following the rank, on documents, etc., would sufficiently designate the officer's profession.

"A. not possessed by any other department. It seems unnecessary to couple Surgeon with the rank in Proposal B. if 'Medical Staff' followed the rank, as it would if Proposal D. is adopted.

"An attempt should be made to make military doctors good doctors and good soldiers by giving them at least the same rank as most of the other departments. Formerly, discipline in hospitals was in the hands of the Colonel of the regiment; now it is in the hands of the medical officer, and embraces between 2,000 and 3,000 Medical Staff Corps, and, say, 10,000 sick constantly under treatment in army hospitals, besides servants, temporary orderlies, etc.; and, in time of war, men of the transport department attached to movable field hospital bearer corps, etc. Under the old regimental system it was sufficient if the Surgeon was a good "man" (doctor) in a ward; now, however, he ought to be a good "man" (soldier), in a barrack and orderly room to deal with discipline of patients, and the discipline, clothing, pay, food, etc., of the Medical Staff Corps who are under his immediate command. He has no business in the army except he is properly qualified as a soldier and doctor. In the campaign of 1882 in Egypt it was stated, and to some extent proved, before Lord Morley and Committee, that doctors were weak in maintaining discipline in the hospitals and on board ship. In the Nile expedition the only charge made by the military was that the discipline of the Medical Staff Corps left much to be desired. Why was this? Because medical

officers regard themselves too much as civilians and do not take sufficient interest in this branch of their duty. Why should a good soldier be unable to be a good doctor? Military generals will, if surgeons become a purely civil branch, deprive them of their due proportion of honours and rewards, no matter what regulations exist on the subject. It would be difficult to understand why some of our most senior officers object to our obtaining honorary rank, except it is remembered that many of these had not to perform, when executive officers, the same duties that *now* devolve upon the executive officers of the department; and, therefore, are not impressed with the importance of quasi-military rank in developing a spirit of discipline and soldier-like bearing in medical officers so necessary for the performance of their important and numerous non-medical duties."

82 D. Surgeon. "It will give all that is required, and will cause no jealousy amongst the combatant ranks.

"A. We don't want substantive rank.

"B. or C. Rather clumsy.

"E. gives no rank in the army; of no practical value."

160 D. Brigade-Surgeon. "Reasonable, and likely to be granted. What we have needed (honorary rank) since relative rank was abolished, to put us on an equality with other departments; should not cause jealousy on the part of combatants.

"A. beyond the reach of possibility.

"B. and C. clumsy; not of equal value to honorary rank.

"E. out of the question; gives no rank whatever.

"With an ideally perfect system of military administration A. would be possible, but at present honorary rank is the only thing possible on the same lines as in the Pay Department."

196 D. Surgeon. "The only practical scheme; likely to be granted. Will designate position in military and social life. It seems most essential, and there is little chance of jealousy, as it has been granted to other departments.

"A. not likely to be granted.

"B. and C. utterly useless, as military titles would become suppressed.

"E. Leaves matters most ill-defined."

4. It would be something to carry into retirement to show that the bearer had really been an officer in the army.

47 D. Surgeon-Major. "Believes that its adoption will meet all difficulties. Honorary rank cannot be refused where it is already granted to all other departments and to our subordinates and quartermasters of the Medical Staff. At present we leave the service plain 'Mr.' as we entered it.

"No other proposal is likely to be adopted."

59 D. No name or title. "Honorary rank a recognised institution given to Pay and Commissariat Departments, also to quartermasters, riding masters, and combatant officers on retirement. Titular rank is the only thing understood by public outside the service.

"B. and C. useless, as they do not confer titles understood by the public.

"E. involves no change.

"A. would be best if we could get it, but it would be strongly opposed by combatant officers."

140 D. Brigade-Surgeon. "More likely to be granted. Is the rank granted to all so-called non-combatant branches except the medical; would show the public the rank we held in the army during service and after retirement, which our present designation does not."

"A. Would not be granted—sinks the medical in the military appellation; would, no doubt, cause jealousy.

"B. and C. clumsy and unmanageable.

"E. bestows no military rank, the right to wear military badges, or command our own corps."

The above will show that the voters for D. state their reasons clearly and vigorously; a considerable number, it will be observed, would have voted for A. if they had thought there was any chance of its being granted.

No one will deny that it is absurd and anomalous, that while medical officers are to have no military titles, their own quartermasters in the same department have them.

The voters under E., or those contented with the existing status of medical officers, are as follows:

Brigade-Surgeon	4
Surgeon-Major	7
Surgeons	21
No name or title	5

The arguments employed may be summarised as follows:

1. Because surgeons bring with them a distinct profession into the army; doctors they are and doctors they must perforce of circumstances remain.

2. Military titles would be a nuisance, and can add no status to an already honourable profession.

3. Present position sufficient for all practical purposes; status depends upon individual merits, and not on military titles.

The following illustrate these arguments. First:

12 E. Surgeon. "Surgeons, only members of the army, having distinct profession adopted before entering. Ought, therefore, to be content to be doctors, and not strain after titles which indicate professional soldiers.

"Other titles makeshifts. A doctor can be nothing else but doctor. Giving other titles causes jealousy and contempt from fellow-officers."

13 E. Surgeon. "By it we gain all privileges of corresponding rank, and yet are recognised as members of a profession which most are prouder of than their connection with the service. Medical men and soldiers afterwards. Not seen any change in position since the new Warrant.

"A. and D. non-combatants with military titles looked down on by combatant branches. By military titles would be reduced to same level, while at present are respected and liked as members of a learned profession. If they had real rank their position would be made unpleasant.

B. and C. are cumbersome, and change is absolutely necessary."

16 E. Surgeon. "Sees no reason why titles should be altered. Medical officers are doctors. The State pays heavily for them as such. Every man clamouring for rank is not a 'doctor' at heart. Take away all uniform, and make us a civil department."

12. 3 E. Surgeon. "Gives all that is necessary for practical purposes of precedence, etc. As medical officers belong to an honourable profession, their status cannot be improved by any military titles, etc.

"E. with the following alteration:

"'The army rank of officers of the Medical Department of our army shall, for the purposes of precedence, etc., correspond with that of the other branches of our army as follows,' etc.

"(This makes it clear that we have now an army and military rank.)"

10 E. Surgeon. "Purely military titles are a nuisance to medical officers, causing them to be mistaken for what they are not.

"The compound titles are cumbersome, and verge on the ridiculous.

"Proposal E., with the 17th clause of the Warrant of 1858 restored in its entirety, which is absolutely necessary to ensure position and the recognition of that position of the army."

20 E. Surgeon-Major. "Medical Department holds a position which it is impossible to compare with any other branch: has been given power of command. I do not think that bearing military titles will add to our dignity and ensure more respect."

3. 8 E. Surgeon-Major. "Secures what is necessary for all practical purposes; social position and status of medical officers depend on his own merits and not on military titles,

"Other titles objectionable, would give rise to jealousy and ill-feeling, and cause a medical officer to be mistaken for what he is not."

27 E. Surgeon-Major. "It is all-sufficient for all practical purposes of precedence, etc.

"Does not think any change necessary."

32 E. Surgeon-Major. "Gives all the privileges and precedence we require for the service.

"Unfair that we should take military titles, which are distinctive titles of the military profession.

"Would like the term 'relative rank' restored."

It has been a difficult matter to select from the immense mass of able replies before us those which typically represent the "reasons" and "suggestions" of the great majority voting under the different proposals; but we have endeavoured to do so, and we hope with success. We reserve to ourselves the right of independent criticism, but it is perfectly certain the vast majority of the Medical Service of all grades demand rank which shall be nameable and definitive, and titles which shall clearly set forth that rank in the army and in society at large.

PAMPHLETS

17