

On the organization and duties of the Bearer Company of the Medical Corps in war / by G.J.H. Evatt.

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Evatt, G. J. H.

Publication/Creation

London : Ballantyne, Hanson, 1886.

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THE DUTIES
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BEARER COMPANY
OF
THE MEDICAL CORPS
IN
WAR
BY
SURGEON MAJOR G. J. H. EVATT, M.D.

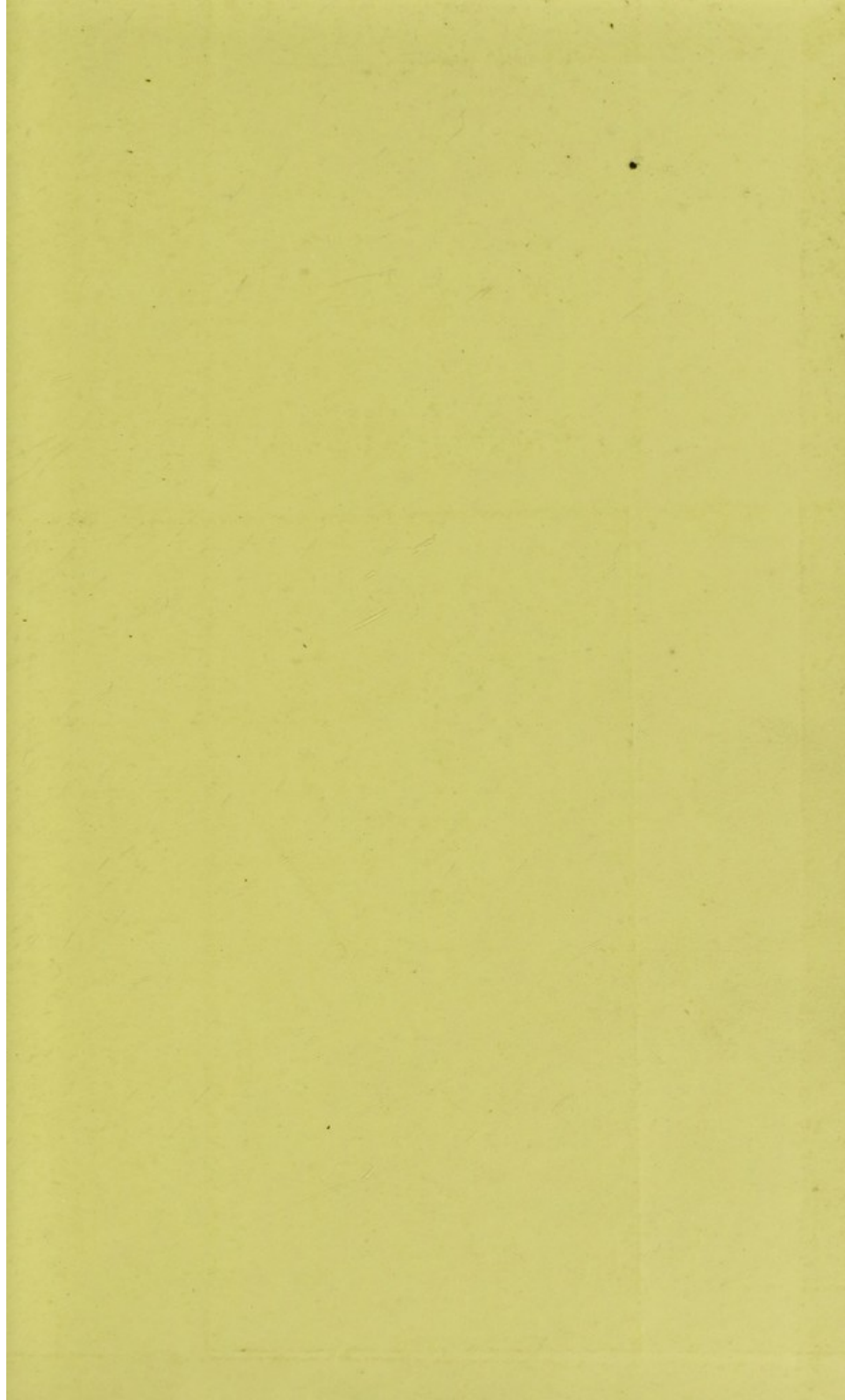
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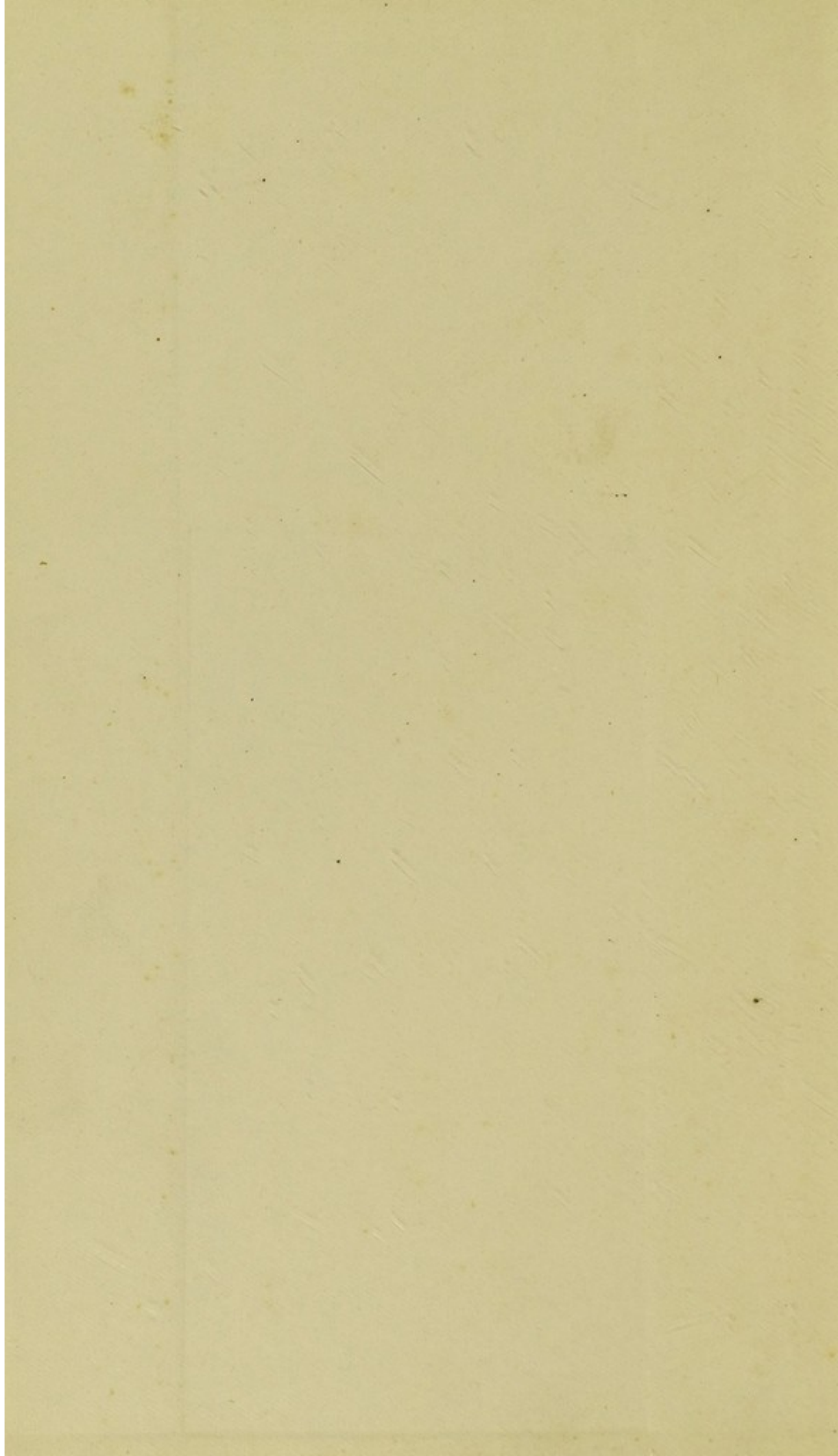
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IN
WAR

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

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LONDON
PRINTED BY BALLANTYNE, HANSON & CO.
CHANDOS STREET, W.C.

1886

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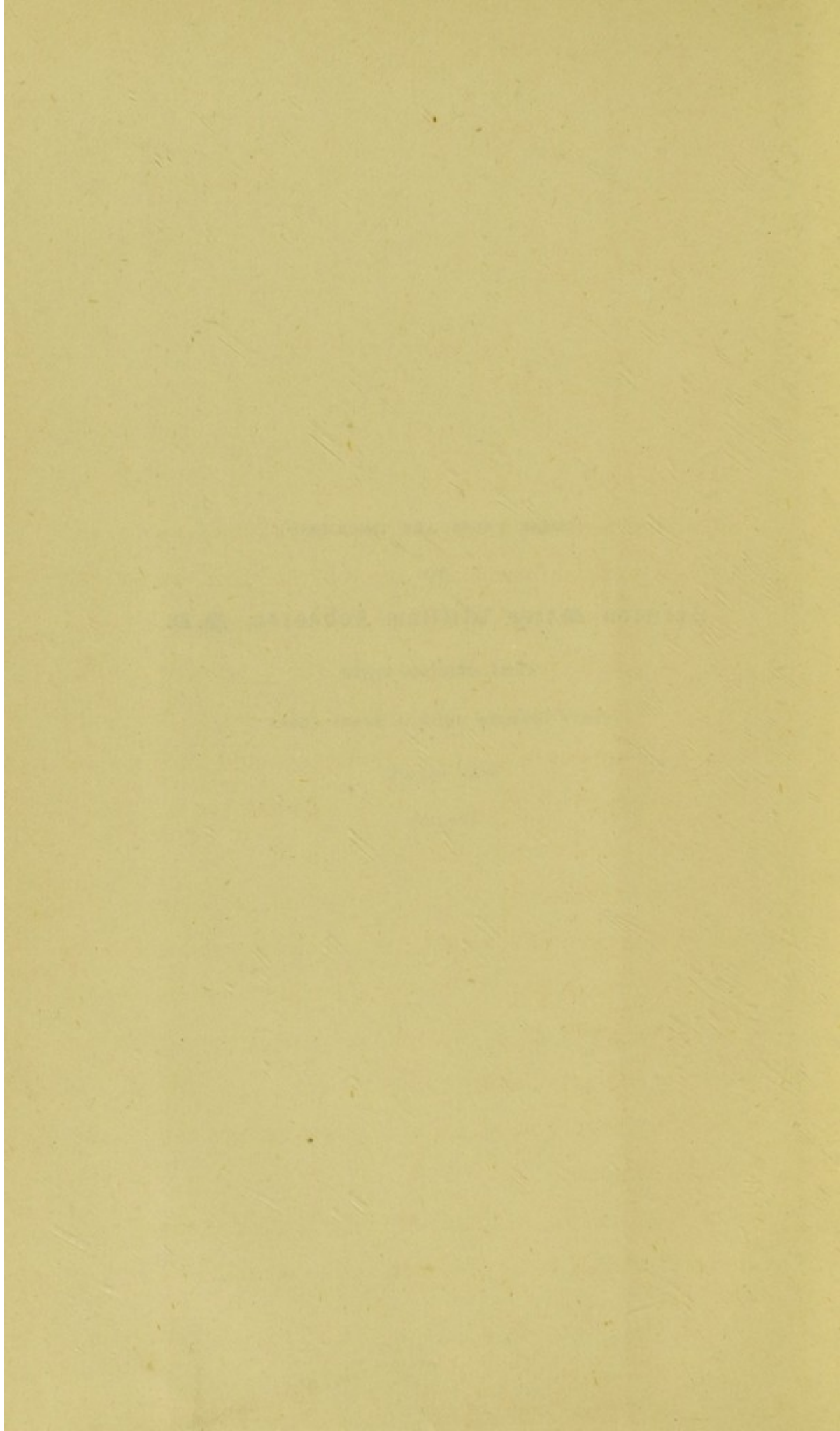
Surgeon Major William Johnston, M.D.

ARMY MEDICAL STAFF

STAFF OFFICER MEDICAL STAFF CORPS

WAR OFFICE

LONDON



P R E F A C E.

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.

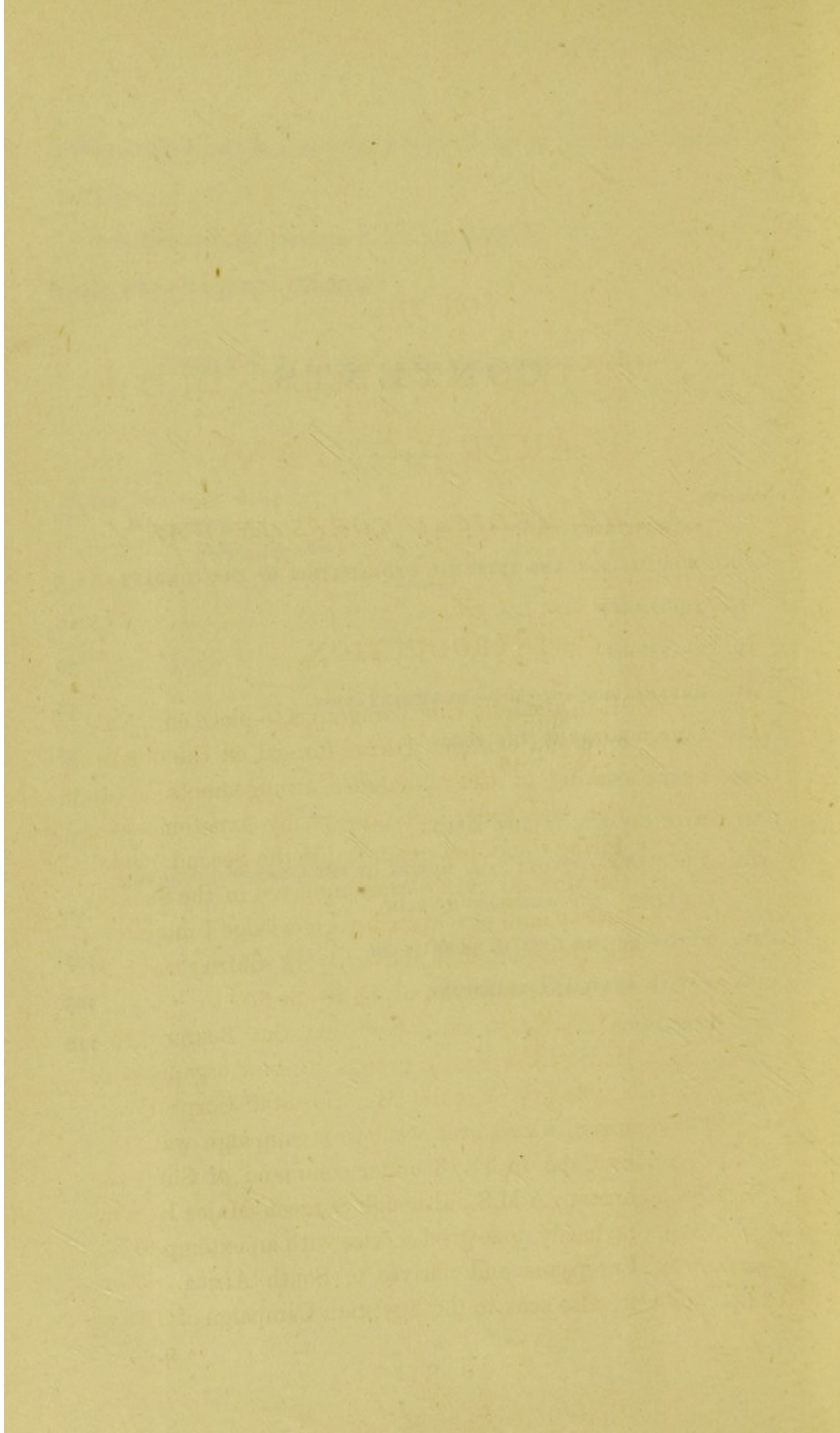
GEORGE J. H. EVATT, M.D., SURGEON MAJOR,
Army Medical Staff.

ROYAL MILITARY ACADEMY,
WOOLWICH,
February 1886.

CONTENTS.



CHAPTER	PAGE
INTRODUCTION	I
I. MOBILIZATION AND INTERNAL ORGANIZATION OF THE COMPANY	5
II. EQUIPMENT	18
III. TRANSPORT	36
IV. EMBARKATION—VOYAGE—DISEMBARKATION	48
V. CAMP ROUTINE IN THE FIELD	53
VI. UNDER FIRE	59
VII. WITH CAVALRY IN THE FIELD	91
VIII. THE "SICK CONVOY;" OR, DUTIES ON THE LINES OF COMMUNICATION—THE AMBULANCE TRAIN	96
IX. DUTIES AT THE BASE OF OPERATIONS	102
X. NATIVE AUXILIARY TRANSPORT	105
CONCLUSION	110



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 1878 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.:

Chapter I. Mobilization and Internal Organization of the Company.

- „ II. Equipment.
 - „ III. Transport.
 - „ IV. Embarkation—Voyage—Disembarkation.
 - „ V. Camp Routine in the Field.
 - „ VI. Under Fire.
 - „ VII. With Cavalry in the Field.
 - „ VIII. The Sick Convoy; or, Duty on the Lines of Communications—the Ambulance Train.
 - „ IX. Duties at the Base of Operations.
 - „ X. Native Auxiliary Transport.
- Conclusion.

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 complete 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 subadjutant, 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, decentrali-

zation 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 reconnaissance

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,
andanimals, to to
carry 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 ?

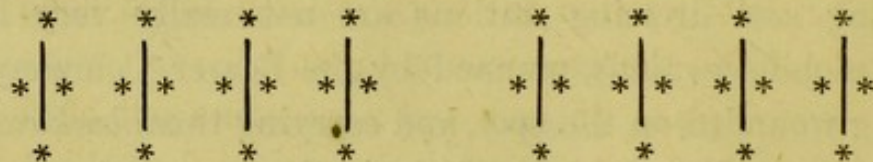
Let us see how the company is fitted for this work.

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.

8 Stretcher Detachments = 32 men



Sergeant
*

†
Surgeon

Sergeant
*

Collecting-station
* *

= { 1 Sergt.-Major
1 Sergeant

Dressing-station

† † †
* * * * *

= { 2 Surgeons
1 Q.M.
8 Men

Baggage = { 1 Q.M.S.
2 Men

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 than 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—waggon, 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.
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For Adjutant Bearer Company. No. of Label..... Regiment.....No..... Name..... Rank..... Wound..... Remarks..... Place.....day of.....18 <i>To be torn off as a record.</i>	For Battalion Surgeon. No. of Label..... Regiment.....No..... Name..... Rank..... Wound..... Remarks..... Place.....day of.....18 <i>To be torn off as a record.</i>
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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 des 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 regrettable 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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ROYAL MILITARY ACADEMY, WOOLWICH,
January 1886.

