Echoes of the Past.

THE ORGANIZATION OF MEDICAL AID IN THE FIRING LINE.¹

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The whole subject of army medical matters is a large one, and, therefore, it is possible for me to-night to touch upon only one aspect of it, viz., the organization of medical aid in the firing line. I shall interpret the words "firing line" fairly liberally, but, at the same time, shall not take my hearers out of the sound of the guns. It is not easy to make such a lecture as this interesting to non-medical men, but I trust that those officers here who belong to other branches of the Service may learn something of our methods in war, and that an interest in our work may be initiated or amplified.

In savage warfare the treatment of the wounded is drastic and effectual so much so, that soon after the action there are no wounded, and the victorious army moves off unhampered; but the advance of civilization has discountenanced these strong methods, so we have the incongruity of the highly civilized nations equipping one body of men to destroy human life, and another to save it. I shall endeavour to put before you to-night the methods in use in our own Army for succouring the wounded, and you will probably be surprised to hear that a real attempt to help effectively our soldiers injured in battle is of comparatively recent date.

The history of the medical arrangements of our Army shows that for centuries the wounded were not greatly considered, and primitive and utterly inadequate was the organization for their help. Military surgeons were present at Cressy—five and a half centuries ago—but the centuries rolled on, while medical arrangements stood still, and while our long and glorious roll of victories was being compiled, those soldiers who fell wounded in them were in evil case—for their sole help remained as it had been at Cressy. There were surgeons present but little else, no assistants, no stretcher-bearers, ambulances, or proper dressings and equipment, and the surgeons were, therefore, apparently expected to cure the wounded by some sleight-of-hand performance, or by some mysterious healing virtue that emanated from them as medical men. The result, of course, was that, what to us is a comparatively trifling injury, in those days meant the death of the patient, and the awful suffering which must have followed the incessant fighting in Europe is too terrible to dwell upon. Even in the Peninsula and Waterloo days, practically nothing was done for the wounded until the troops had time to bring them in—generally the next

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day—and from lack of proper transport and other necessaries it was hopeless to give them proper attention. In the long peace from 1815 to 1854, practically nothing was done in the way of reform either in the medical service or in the army generally, and the service was, in every sense of the word, drifting into inefficiency and ignorance of war routine, and the Crimean campaign came like a thunderbolt on an army in every way unready for war. A great awakening came on the nation and reacted on the medical service. When the British Army embarked for the Crimea, it may safely be said that no army medical service existed. The battalions had medical officers, and a serjeant and a few privates were told off for duty in the regimental hospital, but there was no medical service in the sense it is now understood in modern armies. The regimental system prevailed by which each battalion had two, and in India three or four, medical officers, and a regimental hospital attended to and nursed by regimental orderlies. These officers belonged to the battalion just as the other officers did—they were gazetted to it, wore its uniform, and spent their lives in it. They had no command power and no real responsibility, as the regimental commander was responsible for the discipline and the efficiency of the hospital. Under this system the medical officers were solely physicians and surgeons of the hospital, and the military commander undertook all the rest of the work. This may have been all very well in peace, but when war broke out, and an action had been fought, the weakness of this system was exposed. The one tent which represented the regimental hospital was hopelessly inadequate for the number of wounded; attendants were too few, appliances and dressings were wanting, there were no special men to remove or collect the wounded, and if the battalion pressed on, the surgeon and his few assistants were left on the field to deal with the casualties as best they might. There was no organization to take the patients back to the base, no hospital at the base to receive them even if they got there, and altogether everything was chaos and confusion. When the hospital at Scutari was formed the medical officers who had been trained merely to prescribe for the sick were unable to manage or organize a large war hospital. As Miss Nightingale said: “No one seemed able to make the machine go”—the certain sequence of inefficient peace training in war routine.

After this war the Commission, which now seems to come regularly after each campaign, was held, and as a result certain reforms took place, but the regimental system remained untouched until 1873, when the German campaigns of 1866 and 1870 had given a fresh impulse to military matters, with the result that the medical regimental organization was done away with, and a Medical Corps for the Army developed. This was done by detaching the medical officers, the hospital serjeants and the nursing orderlies from the battalions, and grouping them into the elements of a Medical Corps, to which, in 1877, Mr. Gaythorne Hardy gave a military command over itself and its members, and the autonomous life of the
Medical Corps began. The bearer company and the field hospital, the hospitals on the line of communications, and the general hospitals at the base began slowly to develop, and a new responsibility, heretofore not given to the medical service, was now thrown upon it. A system of medical field organization, copied exactly from Germany, France, and the modern armies of every State, grew up, and by it the sick or wounded soldier is completely withdrawn from the fighting front of the Army, and from the day he is struck down by sickness or the bullet he sees his battalion or battery no more unless he recovers and rejoins it, but if he is a serious case he passes, still under the detached and independent army medical care, to the base of operation and thence to England. At any rate his own commanding officer or his comrades have no responsibility for his cure or carriage, and he remains absolutely and entirely in the hands of the medical service. A corps becoming thus executive in its functions and relieving the military side of what was formerly its heavy executive task, gradually worked into an actual corps, and in 1885 the officers became the Army Medical Staff and the men, who had been known as the Army Hospital Corps, became the Medical Staff Corps. These two separate bodies were in 1896 welded together as the Royal Army Medical Corps. This evolution was gradual but certain, and all medical officers of any seniority will remember the protracted conflict between the War Office and the medical profession, the stubbornness with which both sides fought, and the series of victories which the profession gained. So long as the medical service of the Army remained a regimental organization, with the regimental commander responsible for all discipline, all order, and in the end all efficiency in the military hospitals, the medical service made no claim for military titles or command, but served tranquilly under the battalion military commander, who, being responsible, relieved them of all anxiety for the sick and wounded—at any rate in theory. But when modern war requires that the field army should be no longer clogged in its movements by sick and wounded, and that all these impediments should be taken over by some new responsible body, the medical service became charged with the entirely new responsibility. With the sick massed in the field hospital of war, the medical officer, far away from the help of his colonel, felt the need of military authority to keep order and ensure obedience, and so along the whole line of communications from the battlefield in front to the base and England, the medical service was militarized to give it the power and the authority to carry out its new responsibility. This was the logical outcome of the movement of 1873 towards medical responsibility, and it was impossible to make the Medical Corps an executive corps within itself and at the same time withhold the military titles. Thus we see that, after our centuries of warfare, it is only within the lifetime of, I suppose, most of us in this room that a real attempt has been made effectively to succour the wounded; and the weak, inefficient and crippled medical service of little more than twenty years ago, is now a vigorous Royal Corps, which, in spite of all that its detractors
may say, has done magnificent work in our recent fighting. Any apparent failure has been mainly due to the fact that one man cannot do the work of four, and that a hospital equipped for 100 beds cannot just as easily accommodate and provide for 400 men.

After this brief history, let me now approach more immediately to the subject of this lecture. The whole aim of present-day organization is to provide in war time first-aid on the field, to rapidly remove the wounded from the field to the elementary shelter in the field hospitals, to transmit them towards the base through fairly comfortable stationary hospitals on the lines of communication, to care for them in the great base general hospitals, to transfer them to England in hospital ships, and thence to the great military hospitals at home. The Medical Corps does all this, and so it not only treats the wounded but it clears the front of every ineffective man and so keeps the field army efficient and mobile. What a contrast this is to the battle of the Alma, where it is said that the army might have entered Sebastopol immediately after the action only that it had to remain to assist with the wounded. If this is true it emphasizes the enormous military importance of an efficient medical organization.

Some writers hold that in modern war the idea of instant succour to the wounded is a mistake, on the ground that it will cause so great a crippling of the Medical Corps during the action by their exposure to fire that after the action the number of skilled men available to look after the masses of wounded will be inadequate, and that, in consequence, the wounded will be worse off in the end. This is a legitimate argument, and though it is not yet acted upon, yet there is no doubt that, if the casualties among the officers and men of the Medical Corps become disproportionately great, it will have to be acted upon, for in modern war the men moving about in the open attending to the wounded will get more than their fair share of fire, and will be unable to use cover to any extent. Even against the Boers, wounded had sometimes to be left where they fell, notably in the Natal fighting, simply because to attempt to reach them would have been tantamount to suicide, and in these days of long-range weapons a Red Cross armlet is no protection to a man.

I cannot do better than follow the lines of the traditional sermon, and divide my subjects into three heads—firstly, secondly, thirdly and lastly.

Firstly.—What can the wounded man do for himself?
Secondly.—What can his own corps do for him?
Thirdly.—What can the R.A.M.C. do for him?

(1) What can the wounded man do for himself?

In our Army every officer and man has a first field dressing served out to him when he goes on active service. It is sewn into a special pocket of his coat and he is taught the use of it. The intention is that as soon as he is struck, the man himself or one of his comrades may at once apply an antiseptic dressing to the wound, and also have a means of, to some extent,
controlling haemorrhage. On my way to North China in 1900, every man on board was instructed, not only in the use of these dressings, but also in first-aid to the injured, and it was rather a coincidence that one of the chief prize winners in an examination that we held at the end of the voyage was killed in his first action. The dressing is of great value, as it gives the wound a chance from the first by bringing antiseptics to bear upon it at once, and prevents dust and dirt of all descriptions from getting in and poisoning the wound. At the same time it is quite possible that we expect too much of this dressing, for it is one of those cases in which what looks very nice in theory does not always come up to expectations in practice. Let us look at the conditions under which a man is wounded in the field. He is probably lying on the ground behind a stone or some other slight shelter, and all round him is a shower of bullets which renders it quite impossible for anyone to walk up and attend to his wound properly, or to carry him away at once. He must lie where he is till the action is over, or, at any rate, till it has passed away from his vicinity, and until that happens the only assistance he can get will be either by his own efforts or from a comrade, or from the surgeon attached to the battalion, who makes his way to him as best he can, and naturally as unencumbered with apparatus and paraphernalia as possible. Under these circumstances, what happens to the wound? The South Africa experience has shown that if there is much haemorrhage it very soon soaks through the small amount of material which comprises the first field dressing, and in consequence of this soakage and also owing to the fact that the dressing contains only a small amount of antiseptic material, putrefaction in the wound is not long delayed. The dressing which the soldier carries with him, therefore, is more a sort of clean rag than an actively antiseptic dressing. But under the circumstances, is it even a clean rag? The soldier or his comrade opens the packet, their hands are covered with mud and sand and grease, they take out the dressing with their dirty hands and probably place it on the ground while they are getting the clothes opened, and then they stick the dirty dressing on the wound. Or, suppose the surgeon puts it on, are things much better? He cannot carry bottles of antiseptic lotions with him into the firing line, he cannot even wash his hands, and though he probably will not lay the dressing on the ground, yet even with the greatest care the dressing will not be an antiseptic one in the true sense of the word. Thus we see that, valuable as this first field dressing is, yet we must not expect too much from it, and it is quite possible that, after this war, the contents of the package may be modified; the introduction of a small quantity of a fairly strong antiseptic powder into it would probably be an improvement.

Again, if the wounded man has some technical knowledge he can still do more for himself. By keeping quiet he can prevent a simple fracture from becoming the more formidable compound fracture, or he may even practically save his own life as was done by Captain Dalton, R.A.M.C., who
was shot through the abdomen in one of the South Africa actions. He lay where he fell for twenty hours, I am told, eating nothing, and drinking nothing, and allowing nobody to move him. By these means he gave himself every chance and eventually made a good recovery. Had somebody in mistaken zeal endeavoured to win a V.C. by throwing him across a horse and carrying him off from a civilized enemy, there would have been one grave more in South Africa. It would be interesting to know the after-history of wounded men carried violently away from an enemy who would do them no further harm; it would probably be found that many a cross had cost the life of the so-called rescued man. Of course I make no reference to savage warfare, which is quite a different matter.

(2) What can the wounded man's corps do for him?

Formerly, a man had only his own corps to look to, for the simple reason that no Medical Corps existed. His comrades carried him away when he fell, but as even our own army has its share of skulkers and men with no stomach for fighting, it too often happened that these comrades forgot to return to their places, and, in consequence, the effective force of the corps was much lessened. I have read that, in the Crimea, a soldier wounded in the hand and quite able to walk would be accompanied back by four or five anxious comrades all full of sympathy—who were seen no more in the fight. Most of us have heard how Sir Colin Campbell gave orders that the wounded were to be left where they fell, and that if any man left the ranks to carry them away, his name would be posted on the door of his parish kirk. This stopped the practice in Sir Colin's brigade, for no man wished his kinsmen at home to think that he had brought discredit on the Highland name by cowardice in battle. But we have changed all this hazardous work, and now each corps has its own trained stretcher-bearers—two men per company—who take no part in the actual fighting but attend to the wounded of their own battalion.

In peace time these men are regularly trained by the R.A.M.C. in stretcher drill and first-aid, and they are prevented from becoming rusty by a monthly drill. In this station this drill is held on the first Tuesday in each month. It must be understood that these are not R.A.M.C. men at all, but are soldiers of the fighting unit—red-coated men. When an action is expected, they are placed under the orders of the medical officer attached to the unit, and attend to their own wounded. When the action is over they return to the ranks of their unit, and the medical officer does not see them again until the next fight is expected. Although the regimental system no longer prevails in time of peace, yet in war a medical officer is attached to each battalion, cavalry regiment and artillery brigade, and as he is for the time being practically an officer of the unit, it will be convenient to include him in the assistance rendered by the corps itself. Let us then turn our attention for the moment to the regimental medical officer and his assistants, and see how they work. He is under the orders of the officer commanding the unit to which he is attached, but also receives
instructions from the principal medical officer of the division in which he is serving, and is at the disposal of that officer. His unit carries his baggage and provides him with a servant, and in addition provides him with one lance corporal and also with one private as an orderly. This man also drives the cart in which the stretchers and equipment are carried. This equipment consists in an infantry battalion of 1 medical field companion, 1 surgical haversack, and 1 pair of field medical panniers. Their total weight is about 183 lb., and, as I have said, they are carried in the regimental medical cart, and the commanding officer arranges that the cart is at all times at the disposal of the medical officer. When an action is expected the trained stretcher-bearers report themselves to the medical officer, place their rifles and valises in the cart, put on the stretcher-bearer’s armlets, take the stretchers and proceed under the medical officer’s directions to the scene of action. The orderly accompanies the officer, carrying the field companion, water bottle, and surgical haversack, while the lance-corporal remains in charge of the panniers so that they may be made available during or immediately after the action. This medical officer and his men must never lose touch with their corps during the fighting, but must keep in close proximity to it, and on no account attempt to carry the wounded back for long distances or in any case beyond the collecting station formed by the bearer company. The duty of this party is to render temporary aid only until the wounded are succoured by the bearer company. The regimental bearers are not supplied with any materials for dressing wounds, but must use the field dressings of the wounded. The medical officer applies any further dressings that he may deem necessary, arrests bleeding, applies splints, combats shock, and so on, but he will not undertake any serious operation. To each wounded man he affixes a tally, stating the man’s corps, number, rank, and name, together with the nature of the injury, the treatment adopted, and any precautions necessary in moving the man. This is for the information of the bearer company and field hospital. Green coloured tallies are placed on serious cases requiring immediate attention. As the unit advances so does the medical officer and his men, and they are directed to collect the wounded in groups as far as possible so as to facilitate the work of the bearer company, which does the actual carrying of them off the field. In civilized warfare the work of this regimental party is comparatively plain sailing, especially in a victorious advance, but if the conditions are reversed and the unit is rapidly retreating before the close attack of a savage foe, the position of this party is by no means enviable, for they must be among the last in the retreat, and the risks they run are proportionately increased. Our organization, however, is based upon civilized warfare, so it is evident that this regimental aid is intended to be of an emergent and temporary nature—and, practically, is the connecting link between the wounded man and his more elaborate and systematic treatment by the R.A.M.C. Observe that this party makes no attempt to remove wounded from the field—the bearers bring the wounded to the regimental medical officer or place them under shelter, if possible,
while the medical officer merely does what is necessary to save life at the moment, and then turns his attention to the next man. They leave the wounded lying on the ground while the tide of war carries them on with their unit.

It must be evident to you that if the action is one of any severity and casualties are numerous that the aid given in the front line is quite inadequate for the requirements of the situation. The battalion is possibly 1,000 strong and the single medical officer has not one man of the medical corps to help him. His assistant is a lance-corporal of the battalion, a raw man who never saw a wound or assisted at an accident in his life, and simply is given the billet for the campaign. Very likely too a different man frequently reports himself to the medical officer stating that the other man has been assigned a fresh duty. The orderly is no better, and the sixteen stretcher-bearers have after all had only an imperfect and elementary training, and though they carry four stretchers between them and each stretcher acts more or less independently, yet there is not even a surgical haversack supplied for each stretcher. If the medical officer gives the bearers any bandages, etc., out of his small stock he very soon finds himself without any. And think of the extent of ground that is covered by 1,000 men in a modern battle—probably the front extends for several hundred yards—and to this are assigned four stretchers with practically no dressings, and one medical officer without a single skilled man to help him. Every other army in Europe of any importance puts two medical officers to each battalion and attaches at least four men of the medical corps to it, as assistants to the officers. They also have a senior medical officer for each three battalions who supervises the work of the battalion medical officers. Thus each 3 battalions have 7 medical officers and some 12 orderlies for skilled aid in the firing line, while in our service there would be 3 medical officers and no skilled orderlies, and no supervision from a senior officer. We see thus that there is a serious shorthandedness in the very first line, and the wear and tear on the medical officer must be excessive. This shorthandedness clings to the R.A.M.C. all over the world—in peace and in war—and I believe the Naval Medical Service is beginning to feel the same thing.

Now we reach thirdly and lastly, viz.—

What can the R.A.M.C. do for the Wounded Man?

This brings us to a consideration of the first stages in the long line of medical aid between the battlefield and England. The general plan is this: the bearer company carries the man first to the collecting station, either on a stretcher or a hand seat. Thence he is conveyed in an ambulance wagon to the dressing station, and afterwards in another wagon to the field hospital. After a short sojourn here he starts for the base—if possible in a hospital train—and he breaks the journey in the various stationary hospitals established on the lines of communication. He eventually reaches the general hospital at the base, and if he is not likely
to be soon fit for service, he is sent to England in a hospital ship, and on arrival goes to Netley or other large military hospital for final disposal. The whole of these arrangements are made by the R.A.M.C. so that it can easily be seen how in South Africa there were constantly thousands of men in their charge. I again ask the military officers, and naval officers too, if they think a vast organization like this could be successfully run by officers without the authority of definite military titles and rank? I think not.

The first link in this R.A.M.C. chain between the firing line and England is the bearer company. This gathers in all the wounded of every branch of the service on the battlefield, and frees the battalion altogether from any responsibility for their wounded, who, from this unit onwards towards England, see their battalions no more during the campaign. One would imagine that so needful a unit as this would be very complete, but it is quite the reverse. The company is a purely scratch formation, it exists nowhere in peace and is thrown together only for the war. Officers and men may never have seen each other before, and it misses, therefore, the cohesion and solidarity of more definite organization. These companies were first founded in 1878, and originally each company had one medical officer, and nine men more than to-day, when firearms are far more deadly and casualties liable to occur more quickly than formerly. There was also one quartermaster to each two companies, but he has since been abolished—thus throwing much non-professional work on the commanding officer. A bearer company of to-day consists of 3 officers, 1 warrant officer and 57 non-commissioned officers and men. These sixty-one individuals are collected from all over the British Islands and rendezvous at Aldershot, where they become bearer company of such-and-such a number and the commanding officer has to weld this "fortuitous concourse of atoms" into an organized body. In addition to his own 60 R.A.M.C. officers and men, he has attached to him and under his command 1 warrant officer and 37 non-commissioned officers and men of the A.S.C. for transport duties—so that the company all told consists of 3 officers, 2 warrant officers and 94 non-commissioned officers and men. A bearer company is formed for each brigade of cavalry and infantry and after the commanding officer has drawn his equipment and has satisfied himself that his company is complete in every respect, it proceeds to the place of embarkation. The regulations lay down that the whole company with its material and transport is to embark at the same time as the brigade to which it is attached. The company is officially attached to a certain brigade, but it is at the disposal of the general officer commanding the division, who can detach the companies or mass them as necessity may require. During the voyage the major R.A.M.C. in command learns something of his two junior officers—who may be either captains or lieutenants—he studies his non-commissioned officers and men and instructs everybody as far as possible in their duties, so that by the time the seat of war is reached all ranks are bound together by the magic of esprit de corps. I must emphasize the fact that
in peace time not even the nucleus of a bearer company exists and that even in manoeuvres a company is rarely, if ever, mobilized, so that in war the company has to perform duties which it has never practised in peace and it makes its first appearance as a going concern on the battlefield of real war. How would my combatant bearers like to conduct a real attack with troops who had never practised it before on the drill ground? Among other weak points is the fact that the company cannot sub-divide into sections to work with each of the battalions of the brigade if separated or detached, and the whole of the equipment and instruments ought to be increased on a liberal scale so as to admit of decentralization into groups to serve with battalions on detached expeditions or movements. The ambulance wagons too belong to the A.S.C. in peace, but to the R.A.M.C. in war and though the discomfort and unwieldiness of these wagons has been protested against, yet at the end of the operations they are returned to the A.S.C. and the Medical Service has no further voice in the matter until the next campaign brings out the unchanged ambulance wagon. The bearer companies are too few in number for effective work, each individual company is deficient in personnel and is weakly equipped. The bearer company for a cavalry brigade also is exactly the same as for an infantry brigade—no attempt is made to give it extra mobility. In addition to these hindrances to effective work, the last straw was the regulation made in 1887, or 1888, that recruits for the R.A.M.C. were not to exceed 5 feet 5 inches in height. I ask you how far can an undersized man of 5 feet 3 inches to 5 feet 5 inches be expected to carry a well-developed dragoon or seasoned infantry man? This sort of thing disheartens the Medical Corps—being given the smallest men to do heavy manual duty. The transport of the bearer company consists of 10 ambulance wagons, 4 forage carts and 1 water cart, and in addition to the horses for the 3 officers there are 53 public horses supplied—4 being allowed for each ambulance wagon.

On the battlefield the duty of the bearer company is to convey the wounded from the firing line to the field hospital. There its duty ends; so that, except when actual fighting is going on, the company is, theoretically at least, unemployed. But to prevent this waste of strength bearer companies are directed to be associated with the field hospitals and encamped near them, in order that they may assist these hospitals in every way in their power, but the organization of the company is kept separate and distinct from the field hospitals.

Let us now imagine the company in action and see how it is distributed between the firing line and the field hospitals. The R.A.M.C. contingent is thus disposed of: 2 stretcher sections are sent out to succour and collect the wounded—they absorb 1 officer and 34 non-commissioned officers and men. Their "beat," as we might call it, extends from the firing line to the collecting station. At the collecting station are one serjeant and the bugler. At the dressing station is the major in command, the remaining junior officer, the serjeant-major and seven non-com-
missioned officers and men—one of whom is a cook. Ten non-commissioned officers and men are employed with the ambulance wagons and the remainder—four in all—stay with the baggage and prepare food for the company. Seven of the A.S.C. section are with this party, while the remainder are with their respective vehicles. The ambulances are divided into two lines—the first travels between the collecting and the dressing stations and the second between the latter point and the field hospital. The water cart and equipment carts are at the dressing station.

In the absence of any instructions from superior authority the officer commanding the company makes all these arrangements himself. He decides what proportion of his wagons are to be in each of the first and second lines—this depending mainly on the character of the enemy, the rapidity with which the wounded are being brought in, the state of the roads and the distance between the collecting and dressing stations and the dressing station and field hospital. He also chooses the positions of the collecting and dressing stations—the general principle being that the collecting station must be as near the fighting line as possible and must be at no great distance from the dressing station—so as to shorten the journeys of the bearers and ambulances of the first line and bring the wounded within reach of surgical aid as speedily as possible. In some cases—and invariably with mountain equipment—these two stations are combined. Collecting and dressing stations, moreover, must advance and retire on a forward or a retrograde movement of the troops being made. All these stations are marked by red cross flags and similar flags are placed between the two stations and also between the dressing station and the field hospital so as to mark the road for the waggons and as a guide to any wounded who may be able to walk—such as men struck in the arms.

Let us now take each of these portions of the company in detail. We will begin with the two stretcher sections which search for the wounded. To each stretcher four men are told off—two actually carry the stretcher with the patient on it, while the others act as reliefs and also take back the wounded man's arms and equipment—which accompany him back to the field hospital and are there handed over to the Quartermaster. One of these four bearers acts as commander of the squad—as the four of them are called—and he carries a surgical haversack and water bottle. While the two actual bearers are opening out the stretcher and preparing it for the patient, the other two attend to his injuries and then all four lift him on to the stretcher. Each stretcher squad acts independently of the others, but to each four stretchers, constituting a section, is one non-commissioned officer who controls his section, while the officer supervises both sections. So that after all the bearer company sends out only 8 stretchers, with 32 privates as carriers and 1 officer and 2 non-commissioned officers as supervisors. The officer, of course, does what he can professionally for each patient, but the total aid seems very inadequate for a brigade of four battalions on a war footing. These stretcher bearers also pick up the wounded which have been attended to by the regimental medical officer.
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and his men in the first place and after rendering immediate aid to all wounded that they find, they carry them to the collecting station, place them, stretcher and all, in the wagons, take fresh stretchers and return at once to the scene of action. They will on no account pass in rear of the collecting station.

The collecting station is marked merely by a red cross flag stuck in the ground and one serjeant and the bugler constitute its staff. It ought usually to be under shelter from fire, if possible near a road, but as near the fighting line, as is consistent with safety. It is merely a depot for transferring the wounded from the bearers to the ambulance wagons. The wagons of the first line rendezvous here and as fast as each is loaded it starts for the dressing station. Each can take only two lying down cases and the R.A.M.C. non-commissioned officer, or man, told off to each wagon is responsible for them on the journey down the road. After taking the wounded to the dressing station these wagons return at once to the collecting station and they never go in rear of the dressing station until the field has been cleared. The serjeant in charge of the collecting station has a field companion and water bottle in his care and also a small reserve of bandages and first dressings to replenish the surgical haversacks of the bearers.

The next place is the dressing station—it is more elaborate than the collecting station, and is, if possible, out of fire near a road, while advantage should always be taken of a good water supply and of buildings, or other shelter, in the vicinity of the scene of action. If no building is available the operating tent is pitched, and the medical and surgical equipment, medical comforts, water cart, and second line of ambulance carts are here assembled. The cook lights a fire and prepares beef-tea, and stimulants are also got ready. Two officers, the serjeant-major, and seven non-commissioned officers and men take up their position here, and more can be done for the wounded than is possible nearer the actual fighting, but at the same time only urgent matters can be attended to, and no operation is performed unless it must be done at once to save the patient's life. Here the original dressings are examined and re-arranged or amplified if necessary, splints are adjusted with greater care than was possible amid the whistling of the bullets, food and drink are given, and the patient prepared as far as circumstances permit for the next stage of his journey. As the examination and dressing of each man is completed he is placed in a wagon of the second line, and conveyed to the field hospital. As soon as the men have been handed over to the field hospital, the wagons return to the dressing station. This process of passing on the wounded from group to group of the bearer company goes on as long as the fight lasts, and when all the wounded have been removed from the open, the woods and ditches in the neighbourhood are methodically searched so that there may be no possibility of any wounded remaining uncared for. Lanterns for searching in the dark form part of the equipment of a bearer company. If the regimental medical officer has not already fixed a tally on any wounded,
the officers at the dressing station affix one—green or white as the case may be—for the information of the field hospital. When the whole of the wounded have been transferred to the field hospital, at the close of the action, the bearer company rendezvous at the dressing station, and then join their brigade in the vicinity of the field hospital.

This is the typical arrangement of a bearer company, but it cannot always be followed. In mountain warfare, for instance, where vehicles cannot go, the wounded are placed on cacolets or folding chairs, two to each animal, and are thus carried by pack transport. One cacolet is slung to each side of the pack saddle, and horses, mules or ponies are the animals employed. The drawback to this is that the patient has to be in a sitting position, which is very unsuitable for many forms of injury. Formerly litters were supplied on which patients could be carried by pack animals in a lying down position, but they were abolished some years ago, for what reason I do not know. All stores and equipment of course must be carried by pack animals in mountain warfare, and in such conditions the collecting and dressing stations are combined.

Some of you may know that in the late fighting in Natal, a corps of civilian stretcher-bearers was formed, and they used to carry the wounded great distances—the wheeled transport being largely discarded. These men carried the patients from Intombi Camp, twenty-six miles, but there were eight men to each stretcher and some 2,000 bearers in all. The undermanned R.A.M.C. could not do such things without civilian aid.

In India again, where the non-commissioned officers and men of the R.A.M.C. do not serve, the bearer company is unknown. Its place is taken by a cloud of dhooly bearers with their clumsy dhoolies, but the way in which these weak looking men will go on mile after mile with their burden, and will take it over apparently inaccessible places excites the wonder and admiration of European beholders. They show courage too in the firing line. The regimental stretcher-bearers exist as I have described them—in both European and native troops.

In the Egyptian campaigns where our troops so often fought in square formation, the medical aid, of course, was all inside the square, and was practically all dressing stations; and in bush fighting, as in the west coast of Africa, there can be no strunging out of the medical aid, all must follow on close behind the troops.

In South Africa when the Army got into the open plains of the Free State and of the Transvaal, the fact that the ambulance wagons could go practically everywhere and were not dependent upon roads caused the system I have described to be considerably modified, and what very frequently happened was that the collecting and dressing stations were not formed at all, but the wounded were dressed as well as possible where they lay and the wagons came right up to them and took them directly to the field hospital. To do this our own heavy and cumbersome wagons had to wait for a diminution or cessation of the firing, but the light and springy ambulances of the N.S.W. Medical Corps used to take down their Red
Cross flag and gallop about under fire picking up the wounded in ones and twos and taking their chance of a casualty. This method has its advantages, especially in a country where darkness soon comes on, but our wagons cannot possibly do it as they are at present constructed.

I shall not enter into details about the field hospitals, although they should be pitched as close as possible to the fighting and may be sheltered from fire only by the configuration of the ground and are, therefore, practically in the battle. Each is equipped for 100 patients, but as these hospitals are supposed to be mobile and to pass their sick and wounded as soon as possible to the hospitals on the lines of communications, they are not supplied with beds, or hospital rations. Each has tents and some surgical and medical equipment, but they have none of the comforts, or even the necessities, of a standing hospital. Like the bearer company, field hospitals are scratch formations thrown together, on the outbreak of war and never seen in peace. In South Africa they were frequently called upon to perform work far in excess of that for which they were provided, with the inevitable result that perfection was not attained, and undeserved censure was passed upon their officers by persons ignorant or regardless of the real facts.

I trust, gentlemen, that I have not wearied you unduly by this lecture, and that some of you who are not medical men have learned a little of Army medical matters. I have tried to show you that our organization is but a thing of yesterday, and that we are called upon to do in war what we are unable to practise in peace. A fierce light at present beats upon us, but though we are deficient in officers, in men, in material, and in opportunities for improvement, yet we believe we act up to our motto: "In arduis fidelis," and we are proud of the way in which our representatives of all ranks in South Africa have shown that motto to be no empty phrase.

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Reviews


This book, written for the student of venereal diseases, is divided into two parts—one deals with the clinical side of the disease, the second deals with administrative and social questions.

Syphilis and its treatment is condensed into seventy-two pages. The course of novarsenobenzol recommended is short, but the doses are too high to be compatible with safety, especially in an out-patient department. An initial dose of 0.6 gramme, followed by three weekly injections of 0.9 gramme, would render a patient who is intolerant to arsenic liable to serious toxic effects.

The anatomy of the genito-urinary tract is described clearly and in detail in thirty pages.