

have been lost or destroyed by wet. Your battalion is encamped some eight miles north of Ladysmith, and is to form one of a new brigade. You receive an urgent telegram from the P.M.O. to mobilize a bearer company as soon as possible, which on emergency must be capable of treating wounded after an action, i.e., practically what is now termed a field ambulance. Later further instructions arrive in which you are told that three staff serjeants and a serjeant R.A.M.C. are being despatched to assist, but that you must procure the remainder of the personnel from other medical units, and that only men enrolled in South Africa can be spared. If you require any extra men to bring the unit up to strength you may apply for newly enrolled men from Durban. Equipment will be obtained from Durban and Maritzburg through the ordnance field depot at Ladysmith. You must try to get your animals from the nearest remount depot. This is two miles on the other side of Ladysmith. Medical equipment and comfort panniers are to come from Maritzburg. Bear in mind that you cannot leave your battalion for more than a day. You have no books of regulations, and cannot get any. No one to pester with questions as there is only an Indian field hospital in the camp, and the other medical officers of battalions are civil surgeons. Durban is 140 miles, and Maritzburg about 100 miles away. The nearest railway goods delivery office is in Ladysmith. Think over the circumstances, and you will appreciate some of the difficulties that were experienced, and which will be referred to in the lecture on duties of the R.A.M.C. in the field.

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#### NO. 2.—DUTIES OF R.A.M.C. IN THE FIELD.

A COMPREHENSIVE description of these duties will be found in the latest edition of the Training Manual, R.A.M.C., so it is only proposed to allude to a few instances in which some uncertainty as to the best course to adopt has arisen. The mobilization of the bearer company, mentioned in the last lecture, is a case in point. A vain attempt was made, after despatching telegrams to the Ordnance, Remounts, and Transport Officers, to personally collect the men, animals and stores, and by hard riding, to interview the officers concerned. This proved a failure in several ways, such as finding that troops had moved their camps, or that the officer sought was away on duty, &c., and what was still more irritating, on returning after a long, fruitless journey, was to be handed telegrams that had arrived early in the day, and should have been replied to without delay. There is little doubt that under the circumstances, the better plan would have been to have remained at the end of the telegraph wire until arrangements had been definitely settled, for when this method was adopted progress became rapid. One point worth noting is that when the telegraph department is congested it is as well to confirm all telegrams by letter.

The men of the Bearer Company, all of whom were enrolled in Natal, were of various nationalities and were mostly tradesmen. They had the free and easy colonial manner and little appreciation of discipline. It required a considerable amount of tact on the part of the N.C.O.s to run things smoothly. One man, however, proved quite intractable and was discharged, as he refused to obey any N.C.O. in the British Army. He went off threatening to see his lawyer about the matter. The animals were a difficult problem for the O.C. Remounts for the Natal Army had practically cleared the country. As a last resource he collected a hundred and twenty horses that had been cast from the mounted corps, and from the trouble they gave to break in, vice seemed to have been the reason for casting them. Only a few had been broken to harness, so this had to be done in camp, and for a long time the troops styled the Bearer Company "the 8th Brigade circus." By steady daily training both men and horses learned what was required of them, and for eighteen months did good work in the field. The unit first came under fire at Laings Nek, but had no work to speak of. At the taking of Amersfort, wounded were collected from the whole of the area covered by the Brigade. A problem arose here, for the field hospital had been left moving along a road ten miles in rear, and its whereabouts was unknown. Was it better to send the wounded back on the chance of finding it, or to take them forward into the town and look after them for the night there? We decided on the latter course, as being best from the patients' point of view, and transferred them early next morning after a comfortable night's rest in the hotel. This plan deprived the unit of most of its ambulance wagons for thirty-six hours. Some of the other bearer companies decided to send their wounded back directly after the fight, but only got them to their hospitals after wandering about most of the night. There was one great point in their favour, however: their ambulance wagons rejoined them quite twelve hours before ours were able to catch up.

One afternoon later on, just before the Force reached camp there was a good deal of firing along the front, but the occurrence of a very perceptible earthquake shock suddenly put an end to it. Bearer parties were sent out, but could hear of no casualties. About 8 p.m. a man came into the Bearer Company camp and said that a small party he had been with had been ambushed by the Boers about three miles away, and were lying out there badly wounded. Taking the man as a guide the Bearer Company went out. The night was just dark enough to make it difficult for the ambulance wagons to travel. Searching the ground took over two hours, as the bearers were inexperienced, and the whole area had to be gone over a second time to ensure that no wounded had been missed. Twenty-seven were found and brought in, and a party of bearers left to look over the ground also returned with one after daybreak. As a considerable amount of unnecessary fatigue was thrown upon the searchers by having to go over the same ground twice, and in some places

three times, owing to their persistently collecting into groups and missing portions, attention was given to the subject of night work, and training practised in daylight, so that the men could appreciate what went on in the dark.

The following plan was evolved, which is suggested as a guide until some more efficient method is recommended, as there is not much assistance to be derived from the regulations:—

The searching is carried out by an extended line of bearers. Two bearers of each stretcher squad carry the stretcher, the other bearers of the squad are extended between each stretcher at an interval of about ten paces from the squads and from each other. Thus a squad of six bearers will cover a frontage of forty paces. If the night is very dark an interval of seven or eight paces may be found preferable, for each bearer must be instructed to keep the men on either side of him in sight as the line moves on and at the same time to search the ground he passes over. The controlling officer should march in the centre of the line and one officer on the extreme flank on each side. Other officers if available should be distributed at intervals along the line. Orders are issued by passing the word along the line from man to man. The officers on the extreme flanks report to the centre every five minutes by "Pass the word All's well on the right (or left) flank." This report informs the controlling officer that his line is connected up, for failing to receive it he at once orders the line to halt and takes steps to connect any break in the formation. This is in reality an extra precaution, for each bearer is instructed, that if at any time he loses sight of either of the men next him, he is to immediately "Pass the word Halt, the line is broken at (give number) squad." On the line being halted the officers and N.C.O.s connect it up and when accomplished the word is passed in that "All's well." The controlling officer then passes out his orders to advance or retire as the case may be. With a little practice in daylight a line of extended bearers can soon be taught this, also to change direction or incline. Once they have seen the movements carried out, it is surprising to find the ease with which searchers covering upwards of a mile of frontage can be controlled in the dark. All movements must be carried out at a slow pace unless circumstances allow the use of lanterns. If many wounded are likely to be found it is as well to retain a few stretcher squads in reserve to complete the line when bearers have to fall out to take the wounded to the ambulance wagons or to a collecting station. Eighteen stretcher squads and N.C.O.s thus extended would cover a frontage of about 930 paces, i.e., nearly 800 yds. Some objectives, such as a star, or a distant light, or the top of a hill if visible on the sky line, pointed out to the men for showing the general direction, before starting, is a help. Untrained men will march too fast on the flanks and are inclined to bunch toward the centre, with the result that a slowly closing crescentic formation results and the area of ground searched is

considerably reduced. Luminous compasses are useful on these occasions. Remember to notice that the north star you think you have found must form the end of the tail of the little bear, or else you have got hold of some other star by mistake.

While considering night-work it might be as well to touch upon a few other points. In field service regulations night operations are classified as "Night Marches, Night Advances and Night Attacks, and the fact is pointed out that Night Attacks, that is to say, attacks delivered in the dark, should rarely be attempted by a force larger than an Infantry Brigade against a single objective unless the conditions are exceptionally favourable."

For night marches all that is generally required is to see that sufficient ambulance wagons are detailed to march in rear of the last vehicle of the column to pick up sick and stragglers.

In night advances transport or other vehicles are, as a rule, left behind, so if an attack is to be made at dawn the bearer divisions of field ambulances, less their wagons, but reinforced by the personnel of a tent sub-division or two, may be sent with the troops, the wagons being sent for later, when the action develops.

For night attacks it is a debatable question as to whether an effort should be made to render aid to the wounded during the attack or to keep the medical personnel in reserve ready to be distributed over the ground when the fighting ceases. In most cases the latter course would probably be the better. The formation to be adopted must vary with the ground and with the special circumstances of each case, (*vide* F.S.Reg., p. 166, para. 7). Instances, however, may arise in which it is essential that the wounded should be got away before daylight, so it is as well to have some sort of a scheme to base arrangements upon. In the first place the medical officer should be given an opportunity of reconnoitring the ground as far as it is possible and should be shown any maps or sketches that are being used for arranging the attack. He should be made aware of the formation of the attacking troops and all orders either written or verbal issued to them. He must then decide whether the bearers should accompany the troops forming the reserve from the position of assembly to the position of deployment or beyond it, and the place where the remainder of the personnel will be in readiness. The route to be taken by ambulance wagons must be decided, as after the action it may be found practicable to make use of them. In most cases it will be advisable to issue orders for grouping wounded whilst the area is being searched. This search should be carried out close to the new position taken up by the troops as well as in rear, so that any of the enemy, wounded in their retreat, may be collected from the entrenchments, &c., as they may hamper our troops if left, in addition to the fact that they must receive care and attention.

Before a night attack it is very important to thoroughly explain the arrangements to every individual concerned with the removal of the wounded. After the bearers have moved off in the dark there is no countermanding your orders, much as you may desire to do so.

Night attacks may be made by the enemy on our troops, by no means a rare event in the South African war. The attack on Wagon Hill was one of the most severe. It commenced at 2.20 a.m. Several instances could be mentioned which occurred on nights when the troops considered themselves safer than they had been for months previously. At Lake Crissy our cavalry had chased the enemy for 20 miles after the force encamped, but the enemy were busily at work well inside our camp by 4 a.m. next morning. On active service not only the O.C. a medical field unit but also every officer in medical charge of a unit, however small, should have a plan made, and his bearers shown where to bring wounded, in the event of a night attack.

When a force is retreating at night it is as well to leave a sufficient number of stretcher squads, not too many, with the rearguard and a couple of light ambulance wagons or a couple of carts. These are intended to run up wounded to the heavy ambulance wagons, which should march in rear of the transport. The light wagons or carts return to the rearguard after transferring the wounded. It is not desirable to have more bearers, &c., with the rearguard than are actually necessary, for the risk of their becoming casualties themselves and consequently delaying the force has to be remembered.

The subject of night operations deserves careful consideration, for it seems probable that in wars of the future movements under cover of darkness will be frequently resorted to so as to counteract in some measure the value of information gained by aeroplanes regarding the dispositions of troops; training at night might be carried out from barracks occasionally during the winter evenings, say from 5.30 to 7 p.m., without much inconvenience, and a considerable amount of experience gained. The old soldier seldom loses much on night manœuvres, but the recruit not infrequently loses his belongings and himself as well.

There is a point with regard to field work that it may be useful to discuss. After a heavy action, sometimes great pressure occurs in the field ambulances. There are often large numbers of lightly wounded men to be dealt with, and the usual practice is to hustle them off to the rear as soon as possible. This is without doubt the best plan with regard to the majority, but a few may be of considerable assistance in the field unit. They can be employed in many ways, such as looking after fires, watching cooking pots, distributing beef tea, sitting by a severely wounded man, helping the pack-store keeper to check arms and equipment, assisting the clerks, &c., and so relieve orderlies for other duties.

In criticisms of manœuvres where the collection of large numbers of casualties from the field has been practised, severe comment has been

made on the delay caused by the names of the wounded having to be recorded, before the men were admitted. On service it is very necessary to have a nominal roll of wounded made with as little delay as possible. The Staff will want it and will have it whatever else happens. When wounded are being admitted in hundreds the clerical N.C.O.s and men become harassed and cannot compete with the work. To meet such emergencies the following plan was arranged for at the last 5th Divisional Training, but unfortunately owing to the railway strike the training was cancelled on the day of assembly, so the scheme could only be tested on a small scale.

The idea was to divide up the work as much as possible. A supply of small books similar in size and shape to A.B. 36 (the outdoor prescription book) was issued to the field ambulance. The pages were perforated along the inner margin to render them easily detachable and were ruled with columns for Corps, Number, Rank, Name, Injury, Remarks. Lead pencils were attached to the books. Orderlies who could write clearly were selected for the duty of ambulance wagon orderly, and a book was issued to each with instructions to enter the required particulars regarding every patient received into the ambulance wagon under their charge. They were to take every opportunity of doing this either while the wagon was being loaded or on the way back to the field ambulance. On arriving at the field ambulance the pages on which the entries had been made were to be detached from the book and handed to the clerk. On receiving the pages the clerk was to indicate the number of the tent to which the patients were to be taken, put the tent number on the pages and then file them on a piece of wire. The patients would thus be dealt with as far as the clerk is concerned, at least for the time, as quickly as they could be unloaded from the wagons. The clerk was also provided with spare books and pencils.

If a large number of lightly wounded walk into the field ambulance, in all probability there will be some N.C.O.s among them. The clerk could give a book and pencil to each N.C.O. and tell him to enter the particulars of, say, eight or ten men, and then bring the book and the men to him. The clerk would then tell off the men to their tents or shelter, make an entry of the number of the tent or shelter on the pages that have been completed by the N.C.O. and then detach and file them.

If N.C.O.s are not available there will practically always be some of the wounded who are signallers, or clerks, or men, who can take down the names of a few others correctly. If time permits the clerk should, of course, glance over the pages to see that the entries are legible. One clerk alone can carry out these measures for a whole field ambulance and the others can be making entries in the A. and D. book and A.F.A. 36 from the pages already filed. If only one clerk can be spared, as for instance in a short-handed tent subdivision, he must himself take the opportunity of any lulls in the arrival of wounded to enter up his A. and D.

book and A.F.A. 36, from his file. When an opportunity occurs he must ascertain from his officers the names of the wounded who are to be classified "dangerously" and "severely." As soon as the A.F.A. 36 has been sent off, he should complete the columns of his A. and D. book as regards religion, &c., by going round the tents. He will have a fair idea of the whereabouts of most of the patients from the entry of the tent number which he made on the filed pages.

If any officers have an opportunity of trying this or any other plan they may devise for overcoming the difficulty, which is a real one, it would be well worth the time expended. In the next lecture it is proposed to continue dealing with duties in the field, more particularly those which may occur in so-called savage warfare as experienced in the Bazar valley and the Mohmand expeditions, in 1908.

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## Reviews.

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THE PARASITIC AMŒBÆ OF MAN. By Charles F. Craig, Captain, Medical Corps, United States Army. London: J. B. Lippincott and Co., 1911. Pp. x and 253. Price 10s. 6d. net.

When a man who has had an enormous experience of a particular subject sets to work to describe the results of his observations, and when, in addition, he is endowed with a capacity for exposition in clear and simple language, his book is generally worth reading, and so it is with the volume before us. Captain Craig's writings are already familiar to those who keep themselves abreast of the current literature in Tropical Medicine, and in this monograph he gives us a clear account of the present position with regard to our knowledge of amœbiasis. After dealing with the history of the subject, he first takes up the biology and classification of amœbæ in general. Then comes a valuable chapter on technique, in which the many difficulties that surround this part of the subject are dealt with in a manner which we would expect from one who has himself faced the difficulties. He insists on the necessity for examining fresh specimens for purposes of diagnosis, and he points out the great frequency of *Entamœba coli* in the stools of normal people. This is a point which it is very necessary to keep in mind when dealing with the diagnosis of diarrhœas and dysenteries in patients from tropical countries and it emphasizes the necessity for having a clear conception of the characters of pathogenic as distinguished from non-pathogenic entamœbæ. Captain Craig points out that the classical descriptions of entamœbæ are more or less composite pictures and that an opinion must be based on observation of a number of parasites. *E. coli*, *E. histolytica*, *E. tetragena* claim the greater share of attention, but the other entamœbæ