United Services Medical Society.

RECENT TENDENCIES IN THE DEVELOPMENT OF ARMY MEDICAL SERVICES.

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When I was asked to read a paper before the Society it struck me that there were certain points relating to military medical organisation and our work in war, more particularly in regard to recent and prospective developments, which might interest you and afford a profitable subject for discussion. We cannot afford to stand still in this domain of our work any more than we can in any other.

Our guides are, of course, the official manuals, but the rapidity with which these themselves succeed and replace each other is evidence of the close study which is given to passing events, and to the efforts made to accommodate our methods to the lessons which they teach. The experience of actual wars is the main factor in bringing about changes; we have seen how profoundly our old organisation was modified by experiences in South Africa; there has recently been another great war, and we observe its influence in developments which have since taken place in our own and other armies. Usually great and radical alterations are due to actual war experience, but many minor modifications are often the result of practice operations on manoeuvres or similar peace exercises.

All I wish to point out is, that constant vigilance is necessary in order to appreciate the trend of development, and the alterations which may prove to be necessary, and I believe there is no better way of eliciting and defining this appreciation than by discussion.

In studying the experiences of a war it does not do to take them too literally. Because a certain thing has happened in one war, it cannot be argued that it will certainly happen again under similar circumstances; but if a certain thing happens repeatedly during the course of a campaign, there may be good grounds for assuming that it, or something like it, will recur in future wars.

For instance, though the battles in the Manchurian war lasted over long periods of time, up to ten or fourteen days, we cannot
argue that battles in campaigns to come will last as long; but, as all the big engagements in the Manchurian war took much longer to decide than similar battles in previous campaigns, we may fairly infer that serious engagements will take longer to be brought to an issue in the future than they have done in the past. This deduction is now, I think, generally accepted.

The lengthening of the duration of the fight is due mainly to the development of the weapons used. Their low trajectory, longer range and increased rapidity of fire have rendered many things impossible now which could formerly be done. Troops, having committed themselves to a position within effective range, can advance but slowly, whilst retirement has become a most costly process. They have therefore to hang on. This has a very material effect on the medical work. Carrying away wounded under fire on stretchers has become an impossibility, unless exceptional cover is available. The lesson was not learned at once, and both Japanese and Russians lost heavily in their medical personnel until it had been grasped. In the later engagements the Japanese did not attempt to carry away wounded until firing had ceased, or until darkness had supervened.

Wounded unable to get away themselves will therefore lie long in the fighting area, before they can be retrieved. All that it will be possible to do will be to drag them into the nearest available shelter, and to collect them into clusters, spoken of on the Continent as "nests."

They will have to be attended to in these places for some time by the regimental medical personnel.

This has not been lost sight of by our keen-sighted continental neighbours, nor by ourselves. If you scan the organisation of the chief military Powers, you will see everywhere a tendency to add to the resources of the regimental personnel.

This has been done, not so much by adding to the numbers, as by improving their training, more closely defining their position, and increasing their dressing material.

Comparing the medical personnel of battalions on a war footing in the armies of the great military Powers, we find that they conform largely to one type.

Each battalion has two medical officers, four or five men of the medical corps, and sixteen stretcher-bearers.

A point to note is that they all have a specially trained medical personnel in addition to the medical officers and stretcher-bearers.

Our present organisation compares fairly closely (one medical
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... officer, five men of the Royal Army Medical Corps and sixteen stretcher-bearers—bandsmen). But there are points which require a little elucidation.

The men of the Royal Army Medical Corps with us are attached, as you know, mainly for water duties, disinfection duties, and the care of the sick of the unit until they can be removed to hospital. The book is silent as to their employment in action.

Their use in this connection was criticised on the manoeuvres at Salisbury, the argument adduced being on the following lines: There is no greater safeguard for the health of the troops in war than a pure water supply. To neglect this safeguard is culpable. There is no time in war when men are more thirsty and more in need of pure water than in action; therefore, if the men do not get it then, there is little use in their getting it at all.

I think you will see the fallacy of this argument. Let us try and apply it to another condition.

There is no greater safeguard to the lives of men going into action than cover. To neglect this safeguard is culpable. There is no time in action when men are exposed to such danger to life as at short range. Therefore, if the men do not then get cover, there is little use in their having it at all. Does the argument not overlook the fact that there is a time in war when every precaution, be it sanitary or be it military, must be disregarded to attain the one great end which war subserves—the defeat of the enemy? These moments occur only occasionally, and to say that precautions unattainable then are therefore unfruitful at other times, which are themselves much more lengthy, is not a tenable proposition.

Further, if the water personnel were not withdrawn the troops could not benefit in action, as the carts would be miles away with the second line transport. I think, therefore, there can be little doubt in which course the advantage lies.

If the work of the medical personnel with regiments is in future to partake more of the nature of that of dressers than of bearers, as everything seems to show, these Royal Army Medical Corps trained men will be invaluable to the regimental medical officer in action. One would like, therefore, to see it definitely laid down in the book that four of this personnel will accompany the medical officer into action, the remaining one being left behind to bring up the water carts as soon as that becomes possible. To make them more useful one would like to see the one surgical havresack now allotted to a battalion increased to four, one to be carried by each of these men; this would make the regimental medical officer much happier, and
much better equipped for the work which he will have to do when severely wounded are left long on his hands, as we must expect they will be before they can be retrieved.

A word with regard to the stretcher-bearers.

Germany has recently led the way in making her stretcher-bearers Geneva Cross personnel. France and Austria have followed suit. This means that sixteen men per battalion, in addition to the technical medical personnel, are maintained and trained solely for medical duties. Bandsmen are used as auxiliary stretcher-bearers only. The bearers are no longer men temporarily withdrawn from the fighting line. They are now enabled to devote the whole of their time and energy to their special work and to attain a much higher degree of proficiency. This arrangement has the further great advantage of rendering them immune from capture as prisoners of war, so that the Powers mentioned can now, without depleting their medical units, leave behind a proportion of their regimental medical personnel with wounded, whom they may have to abandon, comfortably conscious that the wounded will have attendance, that their own personnel will be returned as occasion offers and that their medical units, which are so difficult to replace, will be left intact. Medical personnel from a battalion which has suffered severely might be much more easily spared than personnel from a medical unit, which at such times would be anything but overmanned.

The development is one which will bear thinking over, and acquires additional significance from the fact that the Geneva Convention requires a belligerent to leave behind a proportion of medical personnel with wounded whom he cannot carry away.

To turn to another subject.

There is a paragraph in the Field Service Regulations, Part 2, Section 75, which gives as one of the duties of the regimental establishment: "To direct cases able to walk to the collecting station, which is a well-defined spot, previously notified for the purpose by the administrative medical officer of the division."

This "collecting station" flashes into view like a meteor in this paragraph, and is not heard of again by name. I do not say this by way of criticism (the Field Service Regulations is not the book for detailed explanations), but merely to draw attention to the fact that the paragraph has given rise to much discussion.

To obtain a clear conception of what is meant, we must first clear the ground of old ideas. We "must be off with the old love before we are on with the new." This collecting station has
nothing to do with what we used to understand by the term. It is not an intermediate point between the regimental and field ambulance lines; it does not lie with either of these lines of themselves to appoint it. Note the wording of the paragraph; it is fixed previously to their going into action, and is notified to them; further, it is fixed by the administrative medical officer, and is therefore a divisional arrangement.

Let us try and picture what happens. An army is marching to meet its opponent; it comes into touch, an engagement is imminent. The General Officer in Command naturally takes some little time to reconnoitre the ground and the dispositions of his enemy. He decides to attack, formulates his plan, and issues his orders. His divisional generals in their turn make their dispositions and issue their orders. Administrative medical officers are made acquainted with these, and on them frame their own orders. If time allowed, they might send for the officers commanding field ambulances and all medical officers with units, and explain to them as much of the plan as it would be advisable for them to know. One point which would concern them all would be the position assigned to the collecting station; the regimental medical officers would not need to be told anything more, they would then be in a position, and it would be incumbent on them, to make the place known to their respective units.

If time would not allow of this, as might often be the case, the position chosen for the collecting station might be made known in operation orders, but there is an objection to putting in these orders anything which can be notified otherwise. Publication or non-publication in orders would be decided by the General Staff according to the circumstances of the moment.

Let us suppose that the action is to commence in the early morning; preparations would be made overnight. The troops would be bivouacked or billeted within marching distance of the expected field. The administrative medical officer, of course in conjunction with the divisional commander or his staff, fixes on a village or group of buildings within this area as the collecting station for his division, and tells off one or more tent subdivisions or sections of a field ambulance to occupy it, if not already installed there. It would be on the main line of retirement, close to a road, a place to which wounded men would naturally gravitate when finding their own way back. The mentality of the soldier, especially of the wounded soldier, must always be borne in mind. The remaining field ambulances would at once empty themselves
into it, and regimental medical officers would be instructed to send direct to it in the morning any men of their units unfit to march into action. In this way the mobility of the field ambulances would be preserved. Further, men falling in the early stages of the fight might be sent direct to this place, thus rendering it unnecessary to open the field ambulances prematurely. Remember, to open a field ambulance is to immobilise it, and this should be deferred as long as possible.

But the great function of this collecting station will be to act as, what is called in continental armies, the "slightly-wounded station."

The experience of recent battles shows that from the commencement a trickle of wounded begins to flow back. The trickle gradually becomes a stream. Follenfant tells us that 50 per cent. or more of the Russian wounded found their own way back, the bulk of them evading the dressing stations; and Schaeffer says that, having no fixed point on which to rally, they wandered about like sheep without a shepherd, and usually made for the place where they were last fed.

Notwithstanding this large number of men who avoided the dressing stations, the following is the description of a Russian dressing station at the battle of the Shaho, given by a Russian physician:—

"The dressing station was established at a convenient point somewhat sheltered from fire, though an occasional shell would fall near by, and the location was too exposed to allow wheeled transport to approach. The personnel consisted of three physicians, three sisters, a few 'feldschers' and some fifteen medical orderlies. An attempt was made to organize the station systematically and conduct it in an orderly way. At first but few wounded were present, and the required records were kept, but soon the battle became fiercer and fiercer, the maimed came in by scores and hundreds, and there was hardly time to render professional aid, leaving wholly out of consideration the keeping of records; so the wounded were bandaged as rapidly as possible and passed to the rear. There was much confusion and disorder, and presently the medical orderlies shirked, being worked out; but the surgeons and the sisters worked on for twenty-four hours continuously, until upwards of 2,000 cases passed through their hands."

Is this not strong evidence that in a severe battle the dressing stations will be overwhelmed, unless some means are taken to divert past them those who do not urgently need their services? The collecting station provides for this.
The collecting station personnel, aided by civil labour and such other assistance as it could get, would be busy preparing for the expected influx. Food and the means of cooking it would have to be got ready, shelter prepared, beds and bedding collected, arrangements for an abundant supply of water made, and for lighting, as the work would continue long into the darkness. The collecting station would further be the rallying point for all local transport found by the troops in the course of their advance, which would be directed to proceed there, and be parked in the vicinity in readiness for the evacuation of the field ambulances when the time came.

One other point. The administrative medical officer when fixing on his collecting station would inform the medical officer in charge of the clearing hospital, one march further back, of its location. The latter, if ordered, should be able to get up by the following evening, take over the collecting station, and so set free the field ambulance personnel to rejoin its own unit.

This is one conception of the collecting station, and I fancy you will agree that the rôle is a large and an important one. In a battle of encounter the execution would be more difficult, but the principle remains the same.

There is another subject to which I wish briefly to refer, and that is the changes which are soon likely to be imposed on us by the development of mechanical transport.

Those of you who were on manoeuvres this year and saw the second division were able to appreciate what a division on the march is like. For miles behind the fighting troops the roads were occupied by a seemingly endless stream of vehicles, made up of ammunition, supply and transport columns and parks, and second line transport of all descriptions. I have been told by one who ought to know, that had the division been forced to retire, it would have required twenty-four hours to clear the roads before it could have moved. It is on this transport that we largely depend for clearing the field ambulances.

On the French manoeuvres this year it was seen that a system had been evolved by means of which a vast proportion of this unwieldy transport could be dispensed with, and the roads behind the army kept clear.

The Government had subsidised motor manufacturers to make chassis according to a certain specification. The chassis is very like that of a motor bus. Commercial firms had been subsidised to use these chassis in their business in return for a lien on their
services for military purposes, much as we subsidise the omnibus companies for the occasional use of their horses. The Government themselves built bodies, suited for their own requirements, to fit these chassis, and stored them. When required for military purposes the chassis were called up and the military bodies fitted to them. The advanced base was thirty miles away from the fighting troops. In the afternoon the vehicles were loaded at the advanced base with what they had to carry. Mark, that they were not the heavy lorries or tractors familiar on our manoeuvres, but quick travelling vehicles. If despatched at 6 p.m. they would be up with the troops before 9 p.m. Three hours would be required to unload and distribute, and in three or four hours more they would be home again and all the roads clear.

How does this affect us? It means that our field ambulances will be in the air, thirty miles away from their next relieving stage. Steps will, of course, be taken, when the change comes, to remodel our organisation. How this will be done it is much too early even to conjecture. I think we may take it that our field ambulances must retain some horse transport, as we must have transport which will go across country on occasions.

Whether the change will take the shape of (1) making some of the field ambulance transport mechanical and so giving this unit a wider range; or (2) giving special motor transport to the clearing hospital; or (3) having a special motor medical convoy unit to bridge the gap between field ambulances and advanced base; or (4) adapting the supply motors for medical uses on the return journey cannot at present be said. With some knowledge of devising motor sick transport the last-named method is to me very unpromising. The chassis may be good and the body may not be unsuitable, the great difficulty lies in so combining the two as to make reasonably good sick transport; special vehicles in our present state of knowledge seem a necessity.

The solution will be made known to us in due time; my only object now is to suggest that some change is not unlikely in the near future which may materially alter our present organisation. It is a trend of the times.

DISCUSSION.

Lieutenant-Colonel BURTCHAELL, R.A.M.C., said that he thought it was impossible to combine the duties of water men and first-aid; he also thought it impracticable to send men direct from the regiments to the collecting stations. In the Japanese army the slightly wounded went
first to the dressing station and were sorted there, those for the collecting stations being sent on to it; he thought it would be impossible for the administrative medical officer to explain personally the position of the collecting station to the regimental medical officers on account of the distances they were away from headquarters; this information must go into operation orders.

Lieutenant-Colonel Wilson asked what the relation of the collecting station was to the dressing station. He thought that it was a great mistake to have complicated arrangements, as they always break down in war.

Major Wanhill protested against the water-men being taken from their legitimate duties for first aid; they were already fully occupied with their water duties.

Colonel Peterkin was doubtful if one slightly wounded collecting station was enough for a division on account of the length of front, and it must be remembered that a division went into action along several roads as a rule; he agreed on the necessity of developing regimental aid.

Surgeon-General Evatt pointed out that a continental regiment corresponded to our brigade, and suggested that it would be a good thing if we had a Brigade Senior Medical Officer corresponding to the continental regimental surgeon.

Lieutenant-Colonel Blenkinsop thought that the regimental bearers should be provided with entrenching tools to enable them to improvise fire shelter for the wounded.

Lieutenant-Colonel Rowan suggested a change of nomenclature to the name "slightly wounded station": he also thought that the water duties could be very well done by the regimental personnel.

Lieutenant-Colonel Russell replied; he pointed out that at critical moments everything, even sanitation, must give way to the primary object of war, the defeat of the enemy. Water carts are second-line transport, and had no functions in battle; in regard to the collecting station for slightly wounded this would be 5 or 6 miles from the front, and could be formed out of a whole village, there would therefore be usually no necessity for duplicating it.

Surgeon-General Bartie in summing up asked officers to devote special thought to the changes which would follow the more general use of mechanical transport in the field.