

SENTENTIÆ VAGÆ.

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*Royal Army Medical Corps.**(Continued from p. 297.)*

XII.

In France, stationary hospitals did not appear to play the particular rôle for which they were created. Certain stationary hospitals were established in Army areas, but they catered only for local sick and special types of cases and did not come into the general scheme of evacuation of casualties from front to base. At the bases general and stationary hospitals were practically identical in function. Frequently the stationary hospital was the larger unit. The impression was that the stationary hospital had ceased to play its rôle as a staging unit on the line of communication. Perhaps this impression is correct. On the other hand, the general hospital may have been playing the rôle of the stationary hospital. For the real base was England and the base in France was but a staging point on the journey from the fighting front. If considered in the light of pre-war conceptions and ideas, there is much to be said in favour of this view. It may be carried further, and the base hospitals of France regarded as a rearward line of casualty clearing stations.

XIII.

A useful point about the stationary hospital was its comparative mobility. Though functioning with 1,000 beds, if need be it could shrink to its "G. 1098" scale of equipment for 400 beds and pack itself into a train in a fairly short space of time. It was more mobile than the "super casualty clearing station," which occasionally required two trains to move it. The stationary hospital derived much benefit from the presence of the simple word "hospital" in its designation while the casualty clearing station suffered from the absence of this word. The latter unit was re-christened in early infancy—before its future scope had been fully appreciated—lest the general public might misunderstand its lack of hospitalization facilities. Yet before many months had gone by this primitive evacuation unit had begun a rapid process of development which ceased only with the ending of the war. Far from remaining a mere "station," it became one of the biggest things in hospitals that the war produced. A factor which tended to hinder this development was the absence of the word "hospital" from its designation. Services on which it was dependent did not understand its importance, and difficulty was experienced on this account. Had it been a "hospital" expanding from a given number of beds to double its original size or more, this difficulty would not have arisen as the situation would have explained itself. So much was this in evidence, that the special type of evacuation hospital required for the special type of trench

warfare in France—that is, the “super casualty clearing station”—might have been more easily built up from a stationary hospital foundation than from the primitive foundation of the original casualty clearing station, *née* clearing hospital. The casualty clearing station was designed for a war of movement, not for stationary warfare.

XIV.

As regards the employment of a motor ambulance convoy for active operations, it was most essential to obtain an accurate forecast of its carrying capacity per twenty-four hours in connexion with the particular task it would be called upon to perform. This task was, normally, the evacuation of casualties from one or more main dressing stations to a group of casualty clearing stations. By noting carefully the time an individual ambulance took to complete the round trip by authorized traffic circuits, and allowing time for loading, unloading, refilling with oil and petrol, inspection, driver's rests and meals, and for road congestion, it was possible to find approximately the number of round trips per twenty-four hours per ambulance. This was a most important index. During trench warfare, with conveniently situated casualty clearing stations the number of round trips per twenty-four hours was frequently six, but during the closing phases of the war, with a rapidly advancing front, damaged roads and bridges, and casualty clearing stations far to the rear, the round-trip index slumped. It became as low as one trip per twenty-four hours—sometimes thirty-six hours. Further, a convoy of fifty cars would have a distinct proportion “constantly sick,” varying accordingly to the make and age of the cars and to other factors. During the battle of the Somme, the proportion of cars out of action was small, one convoy of which the writer had experience maintained forty-seven cars on the road for several weeks. The round-trip index and the probable number of cars in commission gave the maximum carrying capacity of a convoy in a given time. It was a most useful figure on which to base evacuation calculations for active operations. From it, the amount of additional transport required for the lightly wounded could be forecasted approximately, taking into consideration the nature of the military operations and the distances that casualties would have to be transported. Additional transport to supplement the motor ambulances was required for all battles and was obtained by utilizing Decauville trains, returning empty supply and ammunition lorries which kept to a definite route, canal barges, and specially allotted lorries or buses formed into an extemporized ambulance convoy.

XV.

Three objections to the standard type of motor ambulance body were these. First, it could carry only four cases lying, though by load it could take six or more if they were sitting. Thus, if there were no sitting cases available the ambulance was working at only two-thirds of its capacity. Second, the interior was very dusty in summer owing to the faulty

arrangement of the back curtain. A door was required so as to prevent the back draught drawing in dust from the rear wheels, since with a curtain the opening was at the lower part when it was partially rolled up. The opposite was required—the lower portion to be closed, the upper portion open. Third, the stretcher case had only the chassis spring to mitigate ground shocks. In a touring car, the passenger has two sets of springs—those of the chassis and those of the cushions. With the stretcher case there were no cushion springs; he was jolted as much as if lying on the floor of a touring car. The motor ambulance is far from an ideal method of transporting serious cases, but nothing better took its place. The barge was the nearest approach to the ideal but its scope was limited. A sledge dragged behind a tank was remarkably smooth in winter, while the ground was soft, but the employment of tanks for medical purposes had not developed during the war. As pointed out by one committee, the ambulance train developed out of all recognition during the war, while the motor ambulance body of 1918 was identical with that supplied in 1914. This is the case. With the exception of a heating apparatus, which was sound in principle if not perfect in practice, no improvements were introduced. There were under consideration at least two designs for additional stretcher springs—but the war ended first.

XVI.

There was an idea that the unit of fifty cars with workshop complete was too small and uneconomical, since one workshop might have done for 100 cars. Possibly it might, but one workshop for 100 cars would have meant nearly double the number off the road awaiting repair. It would have been one of those economies—the saving of workshop personnel, etc.—which cost the taxpayer dear. One essential of an efficient motor ambulance service was a workshop which could undertake rapid repairs, be able to carry out efficient inspection, and whose objective was to keep each of the fifty cars in good running order. To double the number it had to attend to would cripple its initiative and turn it into an indifferent garage. Its work, like ours, was largely preventive. With 100 cars this would have been impossible.

XVII.

The medical service of our Allies the French contained much of interest. In many ways their hospital equipment was superior to ours. For instance, they possessed a better type of tent. The Bessonneau tent was extremely portable, well lighted and commodious, with a capacity equal to about three of our small hospital marquees. Broadly speaking, it consisted of an easily erected framework over which the canvas was stretched, the inner lining being put up afterwards. Oblong in shape, with windows on each side and doors at the ends, for portability, ease of pitching and striking, and adaptability to present-day requirements, it had the hospital marquée out-classed completely. The French possessed

portable operating huts carried on special motor lorries, complete even to heating apparatus, and capable of erection in little over an hour. They had sterilizing lorries, laundry lorries, motor kitchens, electric lighting lorries and the like—also hangars for use as reception tents. Much was to be learnt from a study of their equipment and organization. It was from a combination of the above motor equipment that the "Auto-Chir" was evolved. The "Auto-Chir" was a mobile surgical unit of 200 beds, completely equipped with motor transport, which was and probably still is the last word in mobile hospitals for major surgery. A detailed account of this unit would be of considerable interest. We had nothing like it. It was assembled only towards the close of the war and was not fully developed when the end came.

XVIII.

The French huddled "Hospital of Evacuation" was a very complete installation, down to its "Javelized" water supply. It consisted of double-lined wooden huts connected together by covered passage ways, with a covered-in railway siding right in the hospital. Its accommodation might be as much as 2,000. The section of the hospital which dealt with walking wounded had rows upon rows of pew-like benches, with narrow tables in front of each. Down one side of the long Adrian hut was a sloping platform covered with mattresses or straw, on which patients could lie down. Seating accommodation and lying accommodation for lightly wounded passing through was thus supplied on a generous scale. A line of these hospitals was established at casualty clearing station distance, with a second line about ten miles in rear. A hospital of evacuation was not a definite unit like a casualty clearing station. It was an institution staffed by a varying number of "pooled" field medical units, plus such additional surgical staff as was required. The French recognized and catered for an "intransportable" type of serious case, which became hospitalized at main dressing station or casualty clearing station distance from the line and remained in a forward medical unit for weeks or months, until fit for transfer. They went in for "Triage" and were constantly sorting out cases right down the line. They possessed proper hospital accommodation up in army areas; for instance, during the battle of the Somme, in addition to some thousands of beds in Amiens, they had several thousands in their evacuation hospitals east of that city. We had only our casualty clearing stations in which to hospitalize cases in the forward area and accommodation would not permit of this on a generous scale. Yet the "intransportable" class of serious case does exist, and more provision may have to be made for it.

XIX.

The British evacuation unit carried on with less elaborate gear than the evacuation units of our Allies. Save for X-ray lorries, mobile laboratories and dental units—the last a gift—we were lacking entirely in the automobile medical equipment of the French. Our First Army, in

particular, studied the question of mobile casualty clearing stations, and constructed a limited number of Wallace-Cowell trailers. A few casualty clearing stations made makeshift demountable huts for theatres or X-ray rooms. It is a matter of regret that these efforts towards mobility did not receive more general attention. Whether we were handicapped by the absence of elaborate gear or not is a difficult question to answer. If we were not handicapped, we might have been so. Our evacuation unit was not particularly mobile, but great mobility was seldom required, even in the last phase when trench warfare had given place to a war of movement. For under the conditions then prevailing, the evacuation unit could not function fully in advance of railhead, and semi-mobility was almost sufficient to keep pace owing to the destruction carried out by a retiring enemy. In any case, we got results which no nation could surpass; our "delivery of the goods" was excellent. During the lean years before the war we had cultivated extemporization up to a fine art. Many of our best installations appeared to be built from ration boxes, oil drums, petrol tins and other makeshift material. They were singular illustrations of how to fashion something out of nothing. This was a point which impressed the foreign visitor to our areas. Nevertheless, if mobility is required in future much re-organization will have to be done and automobile equipment obtained. A new type of tent is essential, for the large hospital marquee is unsuitable for modern military, medical and surgical requirements. Gloomy by day, and requiring artificial light when closed, ill-ventilated by night, taking the maximum number of men maximum time to erect, these marquees have too long survived the Victorian surroundings for which they were designed. Towards the latter half of 1918, the provision of tents of the Bessonneau type had been decided upon—again the war ended first.

XX.

In 1918, after Foch had been appointed generalissimo, the British, French and American formations were becoming interchangeable. French Corps were in our area, British Corps in the French area and American Divisions in both. Thus a British casualty clearing station might have to take over at short notice from a French hospital of evacuation, or the French unit from a British tented casualty clearing station. It was obvious that the question of standardizing the evacuation units of the Allies would have to be taken up. Though a big task, it would have been worth while creating a standardized clearing casualty station evolved from what was best in the existing units of the Allies. All would have derived much benefit from a fusion of ideas. The object in view was to approximate the evacuation units in equipment, personnel, tentage, organization and interior economy, so that American, Belgian, French or British evacuation units could take over from each other at short notice and with little inconvenience. The problem of standardization, however, was never solved—once again the war ended first.

XXI.

It was interesting to watch the growth of surgical *liaison*. In the early days there were bound to be "watertight compartments" in the medical services of the Expeditionary Force, for the medical units had little inter-communication and individual experience might be limited to one particular type of unit. And the unique conditions of war surgery were not fully realized everywhere. The field ambulances, the casualty clearing stations and the general hospitals had not appreciated the different rôle which each was called upon to play in the general scheme of treatment and evacuation. Official complaints of indifferent treatment, or alleged indifferent treatment, on the part of medical units farther up the line were not uncommon. Many were due obviously to lack of knowledge of the conditions prevailing in the forward area, and of the limited scope for surgery in that area. As time went on the watertight compartments were gradually broken down until towards the close of the war they were completely swept away and the whole surface rendered homogeneous. Many factors assisted in the sweeping away of these compartments. The casualty clearing station commander of 1914-15 had been promoted A.D.M.S. of a Division and his place at the casualty clearing station taken by a field ambulance commander. The presence of A.D.'s.M.S. with casualty clearing station experience was of great administrative benefit, and this of itself helped in great measure to bring about a closer *liaison* between the casualty clearing stations and the medical units of Divisions. Officers of field ambulances moved to casualty clearing stations; many of the casualty clearing station surgeons had done field ambulance, or regimental medical duties on first arrival in France. Considerable interchange of officers between bases and field formations took place constantly. Again lectures, conferences and clinical meetings were held and the consulting surgeons of armies and bases began to control the surgery and formulate a definite surgical policy. Under their auspices surgery became an organized subject. They were in close touch with each other; new methods and ideas were "broad-casted" as they became known. Surgeons up and down the line and at bases tried these new methods and adopted them, improved upon them or "turned them down" as the case might be. The duties of the consulting surgeon increased. He began the war as a consultant pure and simple who saw the individual case in consultation as in civil life. He advised on such matters as the provision of surgical equipment. Later on, though he still continued these duties, he was in addition an important administrative officer who held in his hands the control and direction of military surgery in the formation to which he was attached. In effect, he was A.D.M.S. surgery.

XXII.

In the latter half of the war *liaison* improved enormously. Consulting surgeons were then visiting field ambulances and looking upon the forward units, main dressing stations and advanced dressing stations as places

where their advice and experience were required. Officers with surgical training at these stations would be sent for temporary duty to the casualty clearing stations. The casualty clearing station surgeons exchanged duties during quiet periods with those of the general hospitals. In this manner the last of the watertight compartments in France were swept away. And it was about this period that the greater watertight compartment became visible. It separated the hospitals in France from those in the United Kingdom, and the problem was how to break it down, as the surgeon in France and the surgeon at home were not interchangeable. The former was young and fit, and could not be spared for home; the latter was not available for France. He might be unfit for general service. The solution of the problem was to send the home surgeon on a "joy-ride" round the general hospitals and casualty clearing stations in France, in order that he could see conditions for himself and get in touch with the surgeons who sent him his cases. This was commenced in 1918 with very good results.

XXIII.

The prognosis of war casualties is difficult, and prognosis is a branch of medicine which does not receive much attention from the British Faculty. For military work in France a good sense of prognosis was most invaluable. It was only too frequently that one found in field ambulances, for example, cases retained for treatment which were not likely to be fit for several weeks or months. The retention of such cases militated against their early recovery, and excluded from treatment the type of case with which the field ambulance could deal. Prognosis appears to be better developed in other countries. It is an important feature of war medicine and surgery, and one which the military medical officer should cultivate.

XXIV.

Economy attacked several branches of the Medical Services but did no serious harm. It opposed the provision of X-ray apparatus to casualty clearing stations, but withdrew its opposition in presence of the weighty arguments brought forward by distinguished surgeons, who showed that primary suture could not be carried out without a good X-ray plant, and that an X-ray apparatus, if it resulted in saving the life of one British soldier, had repaid in actual money its original cost. But with the exception of the hospital dietary, economy was kept under proper and sensible control, though it gained a minor victory in compelling Colonial nursing sisters to pay for the thermometers they broke in the wards. The plain truth is that economy has eaten into our souls during decades of peace conditions, and we cannot be really extravagant if we try. The Medical Service in France was most economically run and there was little unnecessary waste. A Service should never be "stingy." For stinginess is expensive in the long run as it leads towards lessened *moral*. This is a point which requires attention at the present day when the psychological factor

in efficiency is recognized. Among certain classes of soldiers, as in a lesser degree among domestic servants, stinginess is looked on as a vice. Anyone who practises it loses a certain degree of respect. "Largesse" is a virtue; those who practise it rise in the esteem of their fellows. Herein lies the secret of the efficiency value of an issue of rum. The fact that the Government is "standing free drinks" makes the soldier feel that it is pleased with him and is doing its best for him. This is "largesse" which he appreciates; the *moral* of a force is improved by the issue, provided of course that the issue is properly carried out. The toxic effects of alcohol on the human body appear to be of lesser importance in considering the pros and cons of the rum issue than its psychological effects. In economy the psychological effects must be kept in view also. The writer is no advocate of waste or extravagance; but there is a difference between economy and downright stinginess which is sometimes hard to detect. One lesson of the last war was the need for keeping economy within reasonable, sensible and just limits. *It is a lesson which we should not forget.*

XXV.

Economy in peace time is absolute; in war it must be relative. During peace it is inevitable and, like the poor, is always with us. In the years of peace we become accustomed to its constant presence; it cramps our style and prevents or delays many reforms. Herein arises one of the obstacles which the administrator may find difficult to surmount. After years of constant economy comes a sudden call to war. He must have retained considerable mental flexibility if he is to cope successfully with the new situation. For instead of the old reply, "You cannot have it," comes a new command—"Ask for what you want and you shall have it." The administrator is much in the same position as a pauper who is suddenly called upon to furnish a country house. Peace administration and war administration are as opposite as the two poles; one affords little training for the other. There is and must be a good war mind and a good peace mind, and it is almost unreasonable to expect to find both combined in one ordinary individual. A clever war administrator may find his initiative cramped in peace. An officer trained in peace administration will soon discover that the problems of war are difficult to solve in time of peace. The wide mental outlook required for war can be developed in peace time only by studying the problems of war. The details and minor matters of peace time routine can have but little influence on the development of that flexibility of mind which enables an administrator to forget his peace restrictions and think in terms of war. The old peace time maxim was "Don't let 'em have it." This summed up the necessity for rigid economy, and within reasonable limits it was a sensible maxim. On mobilization it must be recognized as totally inapplicable and even dangerous; economy must give place at once to liberality. For war administration the best motto is "Deliver the goods."