

THE TRAINING OF FIELD MEDICAL UNITS

BY

Colonel F. M. RICHARDSON, *D.S.O., O.B.E., M.D.*

Late Royal Army Medical Corps

(Continued)

VI.—GENERAL MILITARY KNOWLEDGE

MEN who have been trained for some time on the lines described in the previous section, especially if they have been able to practise desert and mountain navigation, should be able to find their way about in most country with confidence by day or night, but they will not be really sound Field Ambulance men unless they have some knowledge of the topography of a battlefield. This can, of course, best be acquired by battle experience, but before men can really profit by such experience they must know a lot about the composition, command, and administration of the kind of formation with which they are serving and how it is deployed for battle. It was in this sphere of general military knowledge that ignorance amongst officers and other ranks was usually most noticeable, and in most Field Ambulances far too little of this sort of teaching was given. It is important in this as in all branches of our training to impress upon the trainees what one is aiming at, and why one expects them to work hard in acquiring this general knowledge; and such arguments as the following can be used.

The collection and transmission of INFORMATION is so important in battle that it should be prescribed in Unit Standing Orders as the duty of every officer and man. Medical personnel cover so much of the territory of any formation in action, their daily duty involving many journeys from front to rear that, if they are trained in intelligent observation, the information which they can bring back may be of great value not only to their Commanding Officer, but also to Intelligence officers. If they are ignorant of the topography of a battlefield and of the organization of the formations engaged they will not only tend to lose their way themselves but will return to their Headquarters with such hazy ideas that any information which they bring will be valueless. Constant teaching and practice in informed observation on all marches and schemes results in good Intelligence in battle. Difficult then though it is to attain a high standard of general military knowledge it is most important to aim as high as possible and success in such teaching brings a sure reward, since only men who know how to find their way round a battlefield can be expected to be much use in action, to show initiative, to give accurate reports of what they have seen and done, or even indeed to carry out their work without unnecessary danger to themselves or to the patients in their care.

Throughout training it should be borne in mind and emphasized to all ranks that once battle is joined the A.D.M.S. and the Commanding Officers of Field Ambulances, who have laboured to perfect their plans for the collection and evacuation of casualties, can exert little further influence on the execution of their plans, beyond ranging the Divisional area using their experience and common sense, and sometimes their rank, to keep things going and to smooth out the muddles which inevitably occur in the confusion of a battle, and making decisions about any changes in the medical plan which may be made necessary by the reaction of the enemy and the progress of the operation. At any time the success of their plans, and indeed the reputation of the Divisional Medical Services, may rest in the hands of a single dispatch rider, ambulance driver or R.A.M.C. private soldier, and may thus in fact depend upon how well they have trained their units, and not only the officers and N.C.O.s but every man. This sobering reflection should not only encourage officers and N.C.O.s to spare no efforts in training their men, but it should impel the men themselves, or at least those with any sense of responsibility, to do their best to absorb the teaching which is given to them.

It is in any case a kind of teaching in which they will usually take great interest, since no one likes to be in a battle without knowing what it is all about. It is an accepted principle nowadays that every man must be "in the picture" and only the dullest minds need much persuasion as to the value of knowledge which enables them to understand such briefing. Men who do not understand a battle tend to pick up battlefield gossip which they repeat when they return to their Casualty Collecting Post or Dressing Station, often with their own additions which accentuate the elements of peril or even of disaster in order to magnify their own daring and the hazards which they have survived. Thus they may very easily contribute to a lowering of morale, especially if their audience is too ignorant to evaluate the true meaning of their stories. An example of this effect which I experienced impressed me with the need for making it an order that men would not repeat such battlefield gossip of a depressing nature, but it is far more important to give them such an understanding of a battle that they can assess things at their proper value. Few of our race, even the most unwilling conscripts, are without some military ancestry and instincts, some perhaps unconfessed pride in the profession of arms, and most of us would like to imagine that we have an understanding of a battlefield, and that when engaged in battle we are not mere unthinking pawns, but are to some extent "in the know"; so I am sure that the men of any Field Ambulance can be persuaded to take an interest in much more detailed instruction in such affairs than they are usually given.

THE DIVISION: COMPOSITION, COMMAND, AND ADMINISTRATION

For teaching the Composition, Command, and Administration of a Division a lecture on the following lines may be given.

A Division is the largest fighting formation in the British Army of which the establishment is fixed—or as fixed as anything in this changing world, for

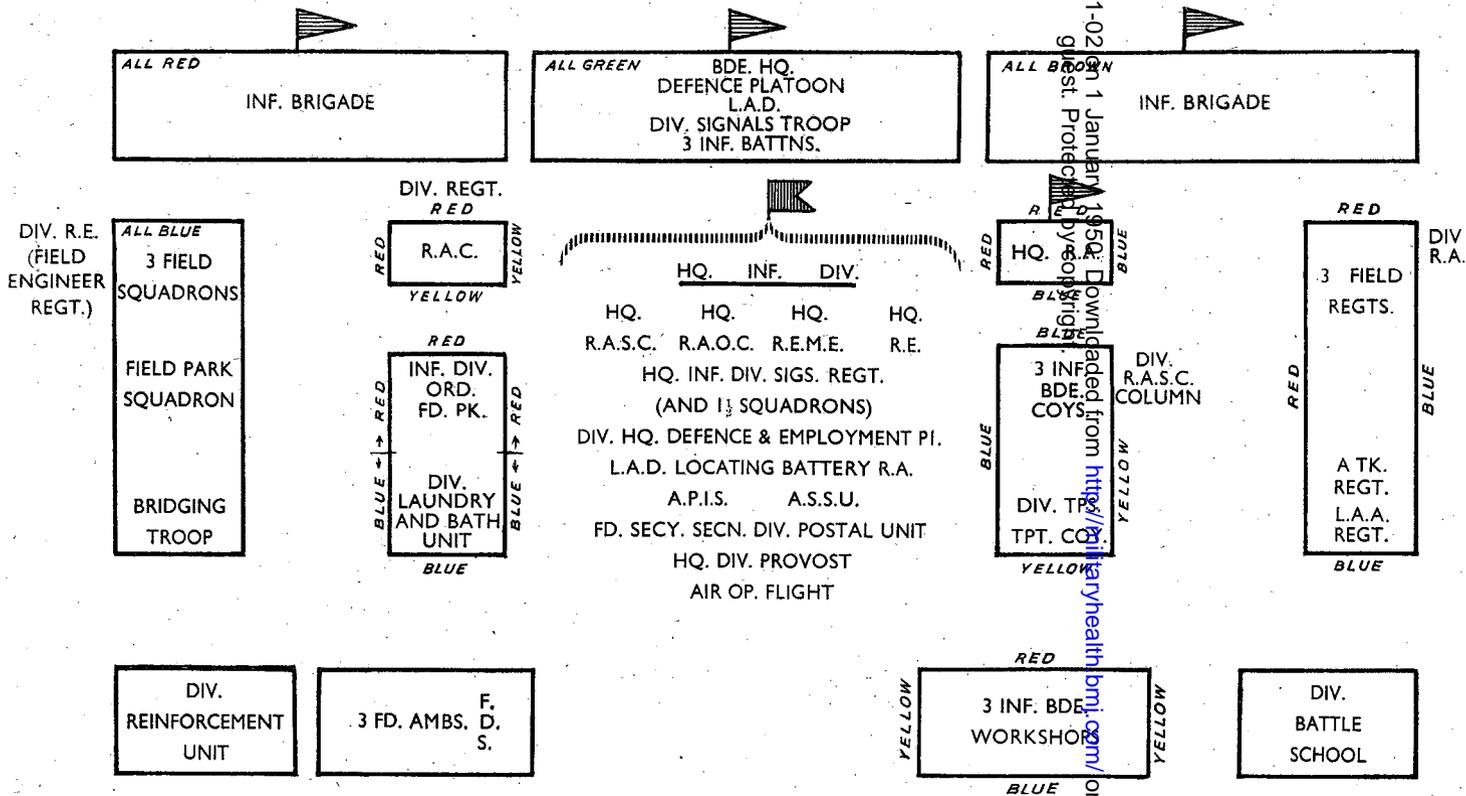


Diagram of an Infantry Division

10.1136/frame-94-01-02 on 1 January 1950. Downloaded from <http://mla.oxfordjournals.org/> on October 21, 2021 by guest. Protected by copyright.

one often finds that the late night final has made inaccurate a diagram based on the sports edition. Except for units serving in Independent Brigade Groups, or under the direct command of higher formations, Field Ambulances are divisional troops, so that a knowledge of the composition of a Division must be our first step to the understanding of a battlefield.

The diagram should be built up step by step on the blackboard, members of the audience being asked at each stage to name the arm of the Service which is next to be added. Taking first the Infantry one puts on the board the three Brigades, colouring them red, green, and brown, because it is upon these colours that the unit vehicle markings and unit signs of the three Battalions and of the Headquarters of the Brigade are painted. One of the Brigades is then split into its component parts with a brief description of the composition of an Infantry Battalion and of Brigade Headquarters. As each arm of the service is added (in the appropriate colours of its vehicle markings if possible, e.g. blue and yellow diagonals for the R.A.S.C.) the units of that arm included in the Division and their functions are briefly described; and finally Divisional Headquarters and its ancillary units are added.

At this stage the tactical numbers which, together with the Divisional sign, each unit has upon its signs and for its vehicle markings, should be described, and also the further distinguishing signs of Squadrons or Companies, which may be drawn on the board.

Although these tactical numbers are temporarily in abeyance it can be assumed that something of the sort will be used in future wars, and it is worth mentioning a few of the important ones formerly used—e.g. 81, 87, and 94, on red, green, and brown backgrounds respectively, being the numbers of the three Infantry Brigade Headquarters in that order of seniority. A knowledge of these tactical signs was ESSENTIAL to finding one's way round a battlefield, and Field Ambulance men must know all the signs of their own Brigade group, and certain other important ones. Formations advance and fight on and around an *AXIS OR CENTRE LINE*, which is cleared and signed as the troops advance. Supplies and D.R.s, etc., go forward by this route; casualties come back by it. The Divisional Axis is marked with the Divisional sign, Brigade Centre Lines with the Divisional sign and the tactical number of the Brigade Headquarters.

Next the Commander and his staff are dealt with, and members of the audience are asked for the names of important officers, with their rank badges, and distinguishing flags or pennants.

The functions of the Staff should then be described beginning with the military members of the Army Council and describing the progressive amalgamation of the duties of the "A" and "Q" branches of the Staff as one passes to lower formations until one reaches at Brigade Headquarters the D.A.A. and Q.M.G., whose functions and title, and how he differs from the D.A.Q.M.G. at Divisional Headquarters will thus be made clear.

When discussing the Staff officers who assist the "G.I." and the "A.Q." the

D.A.A.G. (Health Discipline) who would be on the establishment in certain theatres of war, must not be forgotten.

The C.R.A., C.R.E., C.R.A.S.C., C.R.A.O.C., and C.R.E.M.E., with their separate establishments at Divisional Headquarters will be contrasted with the A.D.M.S. and his staff, who are attached to Divisional Headquarters. The advantages of this arrangement may be mentioned, the chief one being perhaps that whereas in all enlightened Divisions the A.D.M.S. and his staff were located at Main Divisional Headquarters during battle, it would be very likely that, if he were to become the C.R.A.M.C. with a separate and necessarily bulkier establishment, he would be relegated to Rear Headquarters. We differ from the other Services in that we collect our casualties from the front and pass them to the rear, whilst the R.A.S.C. and R.A.O.C. bring supplies from the rear and pass them to the front; and, although the R.E.M.E. problem in so far as it concerns the evacuation of vehicle casualties resembles ours, their Workshops are usually set farther back than our A.D.S.s and their forward organization does not perhaps need such close supervision as do our C.C.P.s and R.A.P.s at which everything may change from success to disaster with alarming rapidity. Thus having won the right to be at Main Headquarters, where the A.D.M.S. can discharge his functions most satisfactorily, it would be unfortunate to allow any reorganization to prejudice our location there. A few words in explanation of why only the "G.I." and the "A.Q." can sign "for" the Divisional Commander, whilst the A.D.M.S. can sign letters relating to medical policy which are intended only for his medical officers and medical units, may help to clarify an understanding of the duties of the Staff.

The A.D.M.S. and his Staff, vehicles, etc., should finally be described. This lecture can be made a great deal more interesting than it sounds, and, if my experience is any guide, the answers which will be got from the audience will prove the need for such a lecture in the preliminary clearing of the ground for the further talks on the battlefield. The whole lecture can easily be got through in an hour, including time for questions. A diagram with some explanatory notes based on the foregoing description should be permanently exhibited in the Information Room or Training Room of the unit.

THE DIVISION: DEPLOYMENT FOR BATTLE

It is, of course, much less easy to show diagrammatically the layout of the Division for battle.

The modern battlefield presents a more confusing picture than in the days when opposing Armies lined up opposite one another, and after some preliminary shouting of insults at the Enemy and of encouragement to "Own Troops," advanced resolutely upon one another, sidestepping the occasional bounding cannon ball, and hacked away until one side bolted. It is as impossible to put on the blackboard a diagram of an embattled modern army as it is to make a diagram of the Heavens showing the stars and constellations in fixed places above our heads. But just as the stars preserve constant positions relative to

one another, and move around the Earth in accordance with unalterable rules which enable those who understand them to know where to expect to see them at different times and seasons, so there are certain general rules governing the deployment of Divisions, and certain signs by which the well-trained, and still more the experienced man, may find his way with confidence around a battlefield. Thus in "Battle Astronomy," to coin a phrase, the altered positions imposed upon the stars and constellations by season, time, and latitude are represented by the different methods of deployment for such operations as desert or mountain warfare, river crossings, or combined operations. Knowledge of the shape of constellations and of the appearance of stars and planets is represented by memorization to the point of instinct of the tactical numbers of units or formations, and by the knowledge of those little indefinable differences in layout and pattern of different formations by which the recognition of the Division through whose territory we are passing eventually becomes almost "second nature."

The following might be the Laws of the science of "Battle Astronomy," and all officers and as many N.C.O.s and other ranks as possible should be well versed in them.

- I. Know the ORDER OF BATTLE of the Division by heart, and keep amendments up to date.
- II. Know the NORMAL GROUPING within the Division.
- III. Know by heart all Formation and unit TACTICAL NUMBERS.
- IV. Understand the current SYSTEM OF SUPPLY in the Field.
- V. Know by sight, and personally if possible, all ADJUTANTS and JUNIOR STAFF OFFICERS, and where they are normally to be found.
- VI. Be able to READ A MAP, anywhere and in any conditions, in a car, on foot, by day or night, in snow or rain; and of course ensure that the map is marked and up to date, as in I above.

A few words might be said in explanation of these "Laws."

I and III have already been discussed in the lecture on the Composition of the Division. In giving that lecture to men who are members of a Division the actual units comprising it would be mentioned, and they would be encouraged to learn these by heart, and to know the tactical numbers of as many units as they can, or at least those of most importance to them, such as those of their own Brigade, of the Headquarters of the other two Brigades, because they are used to mark their Centre Lines, of all the R.A.S.C. Companies, and of the M.A.C. of the Corps in which their Division is serving at any time. When one first joins a new Division it is a good plan to have a list of these typed out for one's pocket book (remembering that it must be treated as a secret document) and to catechize oneself on it daily. No single aid is of more value than this memorization of tactical numbers and unit vehicle markings, and Law III might have been put first except that it seems logically to follow I and II.

Knowledge of the Normal Grouping referred to in Law II implies knowing which Field Regiment R.A., Field Squadron R.E., R.A.S.C. Company, and

Field Ambulance, are normally with each Brigade, and knowing the tactical numbers at least of those normally in the same Brigade Group as one's own unit.

For Law IV (System of Supply) the general principles may be found in R.A.S.C. Training manuals, but the application of them may differ in different formations and it is best to have the lecture on this subject given by the unit transport officer, the Brigade supply officer, or the D.A.A. and Q.M.G. of the Brigade. It is useful to know the System of Supply in the field as supply echelons are always moving up and down the battlefield according to a carefully prepared programme, and a meeting with such a convoy of R.A.S.C. vehicles bearing a certain tactical number may give a clue to one's position or to that of a unit or formation which one wants to visit. The assistance of such vehicles when returning empty may often be invaluable for the evacuation of lightly wounded casualties. The possibility of using them is always kept in mind, and can best be included in our plans if we know something of their normal duties.

The knowledge prescribed in Law V (Personal knowledge of officers) enables one to ask sensible questions from a friend and is as important for other ranks as it is for officers, since if they get lost they will be greatly helped by knowing the names and locations of those from whom they can get advice. Of course they should be encouraged to choose their time for asking for such help and advice, and if possible to get it from others rather than to bother busy Staff officers, from whom they must not expect too much. They may also be advised not to ask for information from the Military Police when on point duty.

Law VI (Map Reading) has been sufficiently dealt with previously, and it need only be remarked that the help of a well-trained Intelligence clerk is invaluable in keeping one's maps marked and up to date, and during training men should be instructed in this duty.

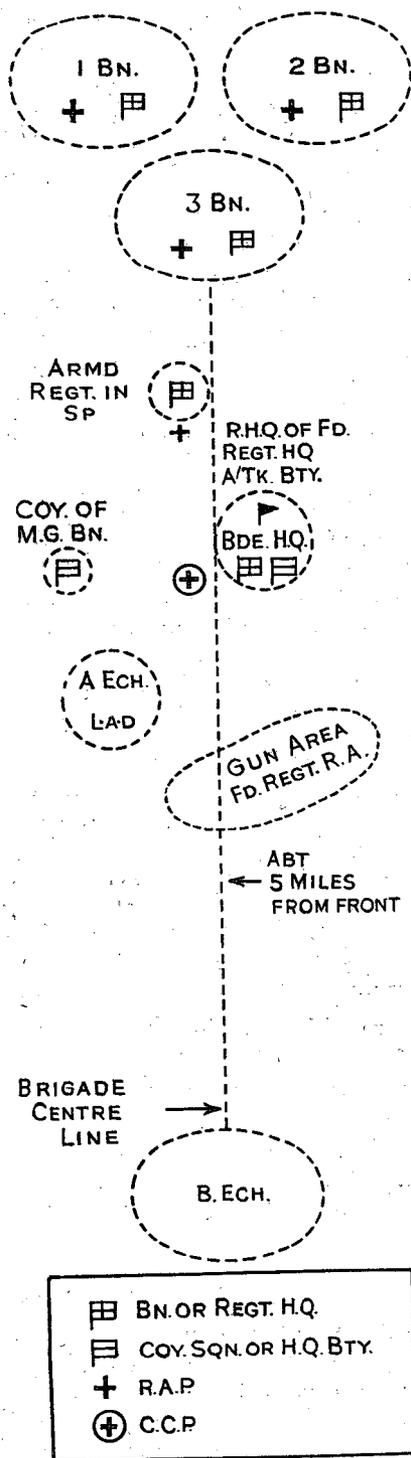
Formations in action tend to be fairly fluid, but always tend to exhibit the common factor of the Divisional Axis, with Brigade Centre Lines concurrent with or divergent from it. Signs of Divisional units will be found branching off the former, and of Brigade units branching off the latter. Thus men who know these signs by heart cannot go far astray.

It is important that members of Field Ambulances should have some knowledge of booby traps and minefields, and how the latter are marked, and, when cleared, the signs which denote the lanes through them. Some member of the Brigade staff or perhaps of the Field Squadron R.E. should be asked to lecture on this subject.

THE BATTLEFIELD

A lecture on the following lines describing a day's journey round a Division in a defensive position will contribute to an understanding of this subject.

The journey to be described is one from the C.C.S. to a Battalion in the



INFANTRY BRIGADE DEPLOYMENT

- The diagram represents a situation during the advance to the Elbe. A brigade of 15 (S) Div encountered considerable opposition in a village where a bridge was blown. After a hard engagement the village was taken but enemy opposition remained firm, and the Bde adopted the layout shown here pending further orders.
- The Bde Group consisted of
 - Bde HQ, Defence Platoon, and L.A.D.
 - 3 Inf Bns.
 - Supporting Arms:* Fd Regt R.A.: Coy of Machine Gun Bn: A Tank Regt: Anti-tank battery: Squadron of Div Recce Regt now called Div Regt R.A.C. not shown on diagram.
 - A Fd Amb.
- Brigade HQ* is not split into MAIN and REAR. When fairly static one HQ was normal. On occasions, especially when Bde is mobile, Tac HQ may be separated from Main.
- A Echelon* is brigaded, under the Brigade Transport officer, and as many as possible of the Inf Bn soft vehicles remain here. Cooking may be done here for Inf Bns if it is not suitable to do it in forward areas.
- B Echelon* is further back in the Divisional Administrative area. B Echelons of Battalions probably under their Quartermasters.
- SUPPORTING ARMS.**
Field Regt R.A.: HQ will be near Bde HQ: Gun area further back: Battery HQs and 2 F.O.O.s will be with each Inf Bn.
Anti-tank Arty: One Bty of Div Anti-tank Regt: Bty HQ near Bde HQ: Guns deployed in Inf Bn areas.
Machine Guns: One Coy of Div M.G. Bn: 2 Pls forward in support of Inf Bns: 2 Pls with Coy HQ near Bde HQ.
Note Div M.G. Bn now obsolete.
Recce Squadrons of Div Recce Regt doing maintenance ready to move forward when front becomes fluid.
Tanks: A Regt of 6 Guards Tank Bde under command and in support of the Division. During advance one Sqn was with each Bn. When position became static Regt went back to rear rally leaving an L.O. with each Inf Bn.
- Field Ambulance.* Under control of A.D.M.S., but very desirable to let it be firmly affiliated to Bde and get to know all Bde units.

senior Brigade of an Infantry Division in the line, where we want to visit the Regimental Medical Officer.

Leaving the C.C.S., which may be serving one or more Divisions, we look for the Axis of the Division, which will be marked with the Divisional sign. Following this we may pass various Corps units such as R.E.M.E. Workshops and the Headquarters of the Corps M.A.C., before reaching the Divisional Administrative Area. The initials M.A.C. which formerly meant Motor Ambulance Convoy are retained to signify Motor Ambulance Company—the modern unit being a R.A.S.C. Company (Motor Ambulance).

In the Divisional Administrative Area we will see the signs of Rear Divisional Headquarters, of the C.R.A.S.C., and of the R.A.S.C. area which may be dispersed in open country or perhaps occupy a small village with many intersecting roads allowing of the necessary traffic circuits. We may see the Ordnance Field Park, and one or more R.E.M.E. Infantry Brigade Workshops, and we may also see the signs of many Battalions including the one for which we are looking, but with "B ECH" underneath them. Here at the unit's B Echelon we might find their Quartermaster, and it might be helpful to turn in and see if he has any mail or supplies such as First Field Dressings to send to the R.A.P. At Rear Divisional Headquarters we might find the D.A.D.A.H. who may be sharing an office, perhaps in a Command Vehicle, with the D.A.A.G. (Health Discipline). The D.A.A.G. of the Division would normally be the Staff Officer at Rear Headquarters who is concerned with the Medical Services. Medical posts in this area might consist of the Divisional F.D.S. and at least one R.A.P. to serve the Divisional Administrative Area and Rear H.Q. The function of the F.D.S. is to treat the minor sick and any cases of exhaustion of the Division and so to reduce sick wastage out of the Divisional area. It is sited more according to the availability of suitable accommodation than to tactical considerations; suitable cases will be filtered into it from the Reception Department of the A.D.S.

The R.A.P. for the Divisional Administrative Area will be staffed by one of those R.M.O.s whose units do not need them in battle to the same extent as do the Battalions and Regiments. These "spare M.O.s" are those of the Divisional R.E., Light Anti-Aircraft and Anti-Tank Regiments R.A., Signals Regiment, and R.A.S.C. Squadrons, Batteries or Companies of these units are usually attached to Brigade Groups and are cared for by the R.M.O.s of the nearest Battalions. The R.M.O. of the Divisional R.A.S.C. frequently runs the R.A.P. for the Divisional Administrative Area.

As we motor on along the Divisional Axis we may see quite a variety of signs of units which do not belong to the Division. These may include those of Army Groups. Royal Artillery, Heavy and Medium Regiments R.A., Armoured Brigades or Armoured Regiments, if such units or formations are temporarily under command or in support of the Division. Other birds of passage, according to the nature of the operations in progress or impending, may include Special Armoured Regiments such as Regiments of L.Vs.T.

(Landing Vehicles Tracked—"Buffaloes" or "Neptunes") for a River Crossing, A.P.C.s (Armoured Personnel Carriers—"Kangaroos"); Flail and Fascine Tanks, and so on, for a break through of a defensive area. However, we are not afraid of losing our way whilst we are following our guiding star, the Divisional sign marking the Axis, and in about five miles or so we reach Main Divisional Headquarters. Here would be the A.D.M.S. and his D.A.D.M.S., and also the staff officer concerned with the medical services, the A.A. and Q.M.G.. An R.A.P. here might be staffed by the Medical Officer of the Divisional R.E. or the Divisional Signals Regiment. In and around the area of Main Divisional Headquarters we will see such signs as those of H.Q. R.A., H.Q. R.E., H.Q. Divisional Signals Regiment, Headquarters of the Light Anti-Aircraft and Anti-Tank Regiments R.A., the Divisional Provost Company, and one or more Field Squadrons R.E. From now on we may expect to see the signs of Brigade Headquarters marking their Centre Lines, and we look for the one which we want, which our knowledge of tactical numbers tells us will be 81 on a red background, the R.M.O. having told us that his unit's number is 56 on a red ground. (It is of course only possible at present to use the wartime serial tactical numbers, which, although now obsolete, serve to illustrate the method of finding one's way about.)

Other units which one may pass as one goes on are Field Squadrons R.E., the Headquarters of the Divisional Regiment R.A.C., with its R.A.P., the Mobile Laundry and Bath Unit, and the A.D.S., which will be somewhere in the vicinity of Main Divisional Headquarters. It would be advisable to call at the A.D.S. because if things are fairly quiet the R.M.O. whom we are seeking may himself be paying a visit there to enquire about the progress and disposal of the casualties from his unit, and to ask if the M.O. at the A.D.S. is satisfied with the treatment which they are getting at the R.A.P., and with the condition in which they are arriving. R.M.O.s should be encouraged to pay visits to the A.D.S. and to regard themselves as part of the Field Ambulance team. Sometimes R.M.O.s made a practice of sending a clerk occasionally to the A.D.S. to check up on their casualties, which is also a good habit. If the R.M.O. is not at the A.D.S. we may be able to take him a message or supplies, and in any case the visit affords us a welcome excuse for the usual cup of hot tea. A similar visit may be paid to the Brigade C.C.P. which is not of course necessarily part of the same Field Ambulance as the A.D.S., but which our knowledge of the Normal Grouping tells us will have the signs "C.C.P. 75" with the Divisional sign and the Geneva Cross. We will expect to find the C.C.P. a few miles forward of Main Divisional H.Q. on its Brigade Centre Line, or near to it with signs on the Centre Line, and fairly near to Brigade Headquarters. Now, if we want to ensure that our visit will not be unpopular, we should ask the Field Ambulance Company Commander, or M.O. in charge of the C.C.P. or perhaps even better the D.A.A. and Q.M.G. or Staff Captain at Brigade Headquarters if we *may* visit the R.A.P., and if there are any restrictions as to time, route, where we should

leave our car and go on on foot, and so on. Only the ignorant would omit to make some such enquiries in the circumstances which we are envisaging—i.e. a Division in a Defensive position.

The R.A.P. will be near to Battalion Headquarters and cars driving up to this area, raising dust, may ruin the effect of days of careful camouflage and concealment and bring down artillery fire which may imperil the whole operation. No one is more unpopular than the idiot from the relative safety of the rearward areas who likes to show his fearlessness by boldly exposing himself near Battalion Headquarters, or even worse near artillery Observation Posts; for after he has departed in a glow of self-satisfaction feeling that he has contributed to the morale of the forward troops, a shower of shells and mortar bombs may envelop his memory in stink or even in slaughter. So obey all local restrictions, however unnecessary they may seem to you, for they have been imposed by those who know from bitter experience, and they may even save your own skin.

Resuming our journey from Brigade Headquarters or the C.C.P. we pass the gun area of the Field Regiment R.A. of the Brigade group, with the tactical number 42, and also perhaps "A Echelon" of the Battalion, or of all three Battalions brigaded under the Brigade Transport Officer. Here if it were an Armoured Division would be the M.O.'s "thinned skinned" vehicles, and in an Infantry Division we may find here according to the nature of the operation and the wishes of the Battalion C.O. the M.O.'s truck and the ambulance attached to his R.A.P., if it is liable to be disabled by fire nearer the R.A.P. itself. The R.M.O. of the future should have an armoured ambulance, and probably also, as in the past, an ambulance attached to him from the Field Ambulance. He might well leave the latter at a Car post some distance from his R.A.P. and send cases to this post either by hand carriage, the armoured ambulance, or by his stretcher-carrying jeep. It would usually be best to site such a car post at a place to which all unit drivers already know the way, and the Battalion's A Echelon is a likely place for it.

We are now proceeding with caution and with due observance of what we learned under Visual Training of Camouflage and Concealment. We avoid sky lines, try not to raise dust, or to let the flash of the sun on our windscreen be seen, park our vehicle to fit into the pattern of the countryside as seen by an air observer, thinking always in terms of the vertical view, and making intelligent use of cover and of shadow. We should also know how minefields and the gaps cleared through them are marked, and we only leave the beaten track with caution. Further on, the track which we should follow may be marked with white tape. Finally, following our track marked 56, which may be the same as the track marked 81 or a branch of it, we reach the neighbourhood of Battalion Headquarters near which will be the R.A.P. and perhaps the Headquarters of the Battery of the Field Regiment R.A., with one or two Forward Observation Officers, and of a troop of the Divisional Anti-Tank Regiment R.A. We should see several directing signs to the R.A.P. in the

Battalion area. Battalion H.Q. and the R.A.P. will vary widely in appearance from a camouflaged dugout or a collection of officers such as the C.O., Adjutant, and Intelligence Officer, with runners, signallers, etc., sitting in a ditch or behind a high bank with some vehicle camouflage nets well garnished with branches, etc., as their only cover, and nearby their individual slit trenches, to a collection of suitably camouflaged and perhaps dug-in vehicles, a jeep or two and a wireless vehicle, or the cellar of a house or shop reinforced with sandbags, with the Battalion Headquarters staff working underground by candlelight in a scene reminiscent of pictures of the First World War.

Although it may be of little importance to us to know how the Battalion is deployed the R.M.O. and his stretcher bearers must know this. We do not expect to see a "thin red line" or a row of front-line trenches, for Infantry hold ground not with men but by fire. An area will have been allotted to the Brigade by the Divisional Commander and sub-allotted to the Battalions by the Brigade Commander at an Orders Group at which perhaps one C.O., noting from the map certain difficult features of his area may have been relieved of some part of it, the area of another Battalion being proportionately increased. C.O.s then apportion their areas amongst their Rifle Companies, the supporting arms of the Battalion being disposed amongst them according to the ground and the Fire Plan. Similarly, of course, the supporting arms of the Division are spaced out amongst Brigades according to the fire plan and the ground into which the Divisional Commander is not prepared to accept enemy penetration.

On our way home we may visit the Squadron of the Divisional Regiment R.A.C. doing maintenance in the Brigade area, ready to move forward when the front again becomes fluid, for of course during this journey the Division has been in defence, or we would not have got along the roads so easily. We may pass the Battalions' A Echelon vehicles coming forward to their units bringing them a cooked meal from the A Echelon area if it has not been possible to cook in the Battalion areas. After leaving the "Red" Brigade's locality we may look for the signs of another Brigade in order to follow its Centre Line and visit the Headquarters of its Field Ambulance which is in reserve. Whether it is the "Green" or the "Brown" Brigade, with tactical numbers 87 or 94, we will find that it has its C.C.P. open somewhere near Brigade Headquarters, with its signs "C.C.P. 76 or 77."

As we motor back from the forward areas we may, and in fact if we are the O.C. of the M.A.C. Platoon, the A.D.M.S. or D.A.D.M.S., with responsibilities for the smooth working of the system of evacuation, we MUST observe carefully whether the route from forward units to the C.C.P.s, A.D.S. and C.C.S. is clearly signed, and the units themselves easy to find by day and night.

THE BATTLE

The sequence of events in a battle varies so widely that of course any lecture can give only a very sketchy outline, but it can be made quite interesting if illustrated from actual experience.

For a major battle such as an attack on a strong defensive position, an opposed landing, or the assault crossing of a big river, planning may last for days, weeks or months. During this PLANNING PHASE all branches of the staff are involved in detailed calculations and discussions of how their part is to be played to fit in with the general plan made by the "G" branch of the Staff, and adapting their preparations to the changes of plan which may result from changes in availability of men or equipment, from varying information about the enemy from the Intelligence branch of the "G" Staff, and even on occasions from political or inter-allied considerations. The medical staff at Divisional Headquarters must make quite sure that they really understand the plan, and when a first consideration of their medical plan raises points about which they need clarification, confirmation or the practicability of their ideas, or any other advice, the A.D.M.S. will probably discuss it briefly with the Divisional Commander and in more detail with the "G.I." or "A.Q.", whilst the D.A.D.M.S. clears up minor points with the second grade Staff officers.

The A.D.M.S. and the Field Ambulance Commanding Officers discuss their plans with everyone who could possibly be affected and attend Orders Groups ("O" Groups) and discussions at Divisional and Brigade Headquarters. The extent to which various aspects of the medical plan can best be worked out at Brigade level by the Os.C. Fd. Ambs. or at Divisional level by the A.D.M.S. will vary with the type of operation. For example for a river crossing it gave excellent results if the Field Ambulance C.O. of each Assault Brigade planned the crossing of detachments of his Company in support of Brigades, and did the bidding for their priorities in craft, whilst the A.D.M.S. dealt with the crossing of the A.D.S., the follow-up Brigade's Field Ambulance, and the amphibians.

Sites for A.D.S. and C.C.P.s will be selected, and general areas for the further medical establishments to open as the advance continues will be chosen from the map. All possible routes and methods of evacuation will be studied on maps and air photographs, and discussed with all concerned; alternative plans should be made and discussed and even put on paper to insure against any failure or necessary alteration of the original plan which may be forced upon us by the enemy's reaction, by shelling, cratering, deterioration from heavy use, or flooding, etc., of the routes originally chosen.

When the plan is reasonably "firm" practices by day and by night may be carried out on ground similar to that on which the battle is to be fought.

During the Planning Phase the day on which the battle is to begin may be known to a few, but to the many it is known as "D" Day; and the time at which it will start as "H" Hour, which is the time at which the assaulting Infantry cross the Start Line, or in the case of a River Crossing the time at which the first wave of assault craft enters the water, and in Combined Operations the time at which the first craft touches down on the hostile shore. The day before the battle is to begin is thus referred to in planning as "D minus one Day," and the day after the first day of the battle as "D plus

one Day," and so on. Times before and after "H" Hour are similarly referred to as "H" plus or minus so many minutes.

For a major battle Operation Orders or Instructions and Administrative Instructions are written by Divisional and Brigade Headquarters, and the A.D.M.S. will write Medical Operation Instructions based upon these. In other cases orders may be given verbally and everyone be fully briefed at O Groups.

The Planning phase is naturally a wearing and an anxious time as one revolves in one's mind all the things which could possibly go wrong, and thinks of people whom it might be wise to brief about certain eventualities. Whatever the boom of the opening barrage may portend for the troops in the forming up areas—and for them too it commonly brings relief from tension—for Commanding Officers and for members of Headquarters' staffs it brings a happy release from planning worries and a chance to join the men of action. Whatever little detail might help to ensure success, whatever alternative in the event of failure might be worth elaborating and explaining to all concerned, it is now too late—the die is cast, so one can be off to see how it is all working out, and to give a hand where one can.

On "D" Day the first thing is of course an Artillery Barrage, and perhaps air attack on chosen targets. These may at first be merged into the normal artillery fire and air activity which have been going on for days, in order to avoid betraying our intentions. Sometimes indeed the whole barrage may be planned with deliberately deceptive intent, as in Operation "Veritable" the battle which was to destroy the enemy between the Maas and the Rhine, breaking through the Siegfried Line and the Hochwald defences East of the Reichswald. Before 5 a.m. on February 8, 1945 ("D" Day for this operation), there was no firing other than the normal artillery activity of the two Canadian Divisions which had been holding the sector before the arrival in the area of the British 30 Corps which was to carry out the assault. This had concentrated with every device to ensure secrecy—vehicle markings being obliterated, movement carried out entirely by night, and daylight reconnaissances almost entirely forbidden. Destructive fire on enemy defences from 5 to 7.30 a.m. was followed from 7.30 to 7.40 a.m. by smoke screens to make the enemy think that the attack was about to begin. He then opened up, revealing his gun positions, and from 7.40 to 7.50 a.m. there was no firing on our side whilst sound ranging and flash spotting enabled us to locate these positions.

Then from 7.50 to 9.15 a.m. there was a further period of destructive fire followed by a second smoke screen on the north-west edge of the Reichswald, thus repeating the deceptive process. Then from 9.20 a.m. there was further intensive counter-battery firing to disable enemy artillery whose positions had been located, and the opening line of the barrage consisting of mixed high explosive and smoke.

At 10 a.m. the complete barrage started, and at the gentlemanly hour of

10.30 it was "H" Hour and the first lift of the barrage occurred. The barrage moved forward in blocks of three hundred yards every twelve minutes, and at the end of each period one gun per troop fired a round of yellow smoke to indicate that the barrage was lifting and so to enable the attacking Infantry to keep close up behind it: In addition to all this artillery fire each Division organized "pepper-pot" groups, which comprised the machine-gun Battalion and available Divisional reserves of light anti-aircraft and anti-tank artillery, in order to saturate with fire the enemy defences on the immediate front and flanks of each Divisional attack.

These pepper-pots which are an occasional accompaniment to a barrage are light-weight bombardments by weapons which do not normally take part in the Divisional fire plan, such as Light anti-aircraft and anti-tank guns, mortars, and in the last war the machine-guns of the Divisional Machine-gun Battalion.

It is useful for Field Ambulance men whose duty takes them into the forward areas to know something of these matters, so that they may know which noise is "friendly," for the din of a barrage can be quite daunting.

Probably before the barrage starts troops will have been moving forward from concentration areas to assembly or forming up areas near the start line, accompanied by their regimental medical establishments. Field Ambulances will have opened C.C.P.s in pre-selected sites as far forward as possible to be ready for the first casualties, and the Divisional A.D.S. is open. These posts must be open in good time for they must not be moving about when troops are moving forward and deploying for battle, nor must they be caught on the move by any enemy counter barrage. Routes to and from all medical posts have been reconnoitred and signed where possible, or studied on the map, and all drivers have been carefully briefed. Drivers may be given typewritten slips describing the routes and the important medical posts with exact distances between each, and it is sometimes useful to draw a sketch plan of the routes in chinagraph pencil on their windscreens.

The lines on which the battle may develop will have been discussed by Field Ambulance C.O.s and their Company Commanders and M.O.s in charge of C.C.P.s at conferences with the Staffs of Brigades and with the A.D.M.S., and possible sites for C.C.P.s to open as the attack develops will have been chosen from the map. The A.D.M.S. will have planned the progressive advance of A.D.S.s to open in support of the advancing C.C.P.s and will have detailed the Field Ambulances which are to open them. During the battle O.C. Field Ambulance must keep in close touch with Brigade Headquarters, and in my opinion should live there, even if his unit Headquarters is open as the Divisional A.D.S. If an extra doctor is needed at the A.D.S. better results will be achieved if the A.D.M.S. finds one from another Field Ambulance or from the "spare M.O.'s" referred to earlier in this Section, than if the Field Ambulance C.O. puts aside his map and compass to take up the scalpel. The Field Ambulance Company Commander is more likely to have to double the

roles of doctor and medical tactician during battle. Inevitably he has an intimate liaison with Brigade Headquarters and when things are quiet at the C.C.P. he will often drop in there to keep himself "in the picture," and this is easy because his C.C.P. will usually be near Brigade H.Q.; but when the C.C.P. is busy he should be there helping in the treatment of the casualties and preventing the C.C.P. from getting swamped. Both he and the C.O., particularly the latter, will also be much on the roads visiting R.A.P.s and smoothing out muddles. R.A.P.s must be very frequently visited by officers of the Field Ambulance, for when the R.M.O. becomes suddenly overwhelmed by casualties or by some other disaster he has no time to send messages. The O.C. Fd. Amb. and his Company Commander choose the exact sites for the advancing C.C.P.s and they must inform the A.D.M.S. at once where they are located. If they do not do so they cannot complain if the Divisional A.D.S. does not move forward in such a way as to take the load off their overworked ambulance cars.

In addition to messages sent by R/T and by D.R.s it is a most useful practice for Os.C. Fd. Ambs. to send regular brief Situation Reports to the A.D.M.S. These can be cast in a somewhat demi-official form, and as well as statements of fact can include forecasts and speculations, where these may be helpful for planning future moves. I used to make several copies of these so that copies could be dropped at C.C.P.s and the A.D.S. by the messenger. These copies kept my own officers informed and were used by them in keeping all ranks "in the picture." If necessary they were divided into two parts, one of which was suitable for publication to all ranks in the form of daily News Bulletins. All ranks including officers must be trained and constantly practised in message writing for it is almost incredible what bad and misleading messages can be written even by medical officers if they are not trained in this. The verbal passing of messages incidentally affords light relief during training, and of examples of the distortion of such messages none is so perennially green as the old example in which "We are going to a Dance. Can you lend reinforcements?" was received as "We are going to a Dance. Can you lend us three and fourpence?"

Returning ambulances should be used when possible to take messages in order to save wear and tear on motor cycles and their riders. I had an invaluable rule which saved many hours of delay and much work of dispatch riders. No Field Ambulance vehicle passed the C.O.'s car or the A.D.M.S. on the road without slowing down and drawing into the side and looking to see if the officer wanted to use it to take a message. If one had forgotten something when leaving one's H.Q. it would have wasted literally hours to turn round on congested roads and go back, if indeed it were possible to do so. Nothing was more maddening than to see a vehicle of one's unit sail past and to be unable to use it to take the message. This rule is therefore warmly commended to C.O.s.

The Wireless Communications available to the Divisional Medical Services

are usually as follows. The A.D.M.S. has a 19 set by which he can communicate with the 22 sets or the three Field Ambulances on his divisional medical net. He should also have a 19 set for communication with Corps Headquarters. At Brigade Headquarters is a 19 set by which the D.A.A. and Q.M.G. can speak to the Field Ambulance on a flick frequency. An hourly flick by each Field Ambulance to its Brigade H.Q. can thus be arranged, whilst if the C.O. is at Brigade H.Q. he can speak to his unit H.Q. at any time. He could send a message to his A.D.M.S. by using certain other sets at Brigade H.Q., but the best way would be to speak to his own unit which would then relay the message on the divisional medical net to the A.D.M.S. The other two Field Ambulances would thus hear the message if a listening watch was being maintained.

Enough has been said to give a good idea of a battle, and it is unnecessary to speculate further on possible developments. The points peculiar to special types of operation should be reserved for talks dealing with the medical arrangements for such battles.

Officers, N.C.O.s, dispatch riders, ambulance drivers and orderlies who move about a battlefield equipped with much of the knowledge contained in this Section on General Military Knowledge, who have cultivated the habit of accurate observation and are schooled in noting their milometer readings, and who are regularly briefed and kept "in the picture," will not lose themselves or their patients, and will bring back for their C.O. much useful information about the battle.

[As submitted this part of Colonel Richardson's paper was followed by a series of diagrams and notes for lectures on this subject. Interesting and valuable as they indeed are the Editor regrets that financial considerations have led to their exclusion from the articles as published. We express our regret both to the author and to our readers for this compulsion.]

(To be continued)