CHAPTER IX

THE FLANDERS OFFENSIVE (CONTINUED): THIRD BATTLE OF YPRES

The second phase of the Flanders offensive was a thrust towards Bruges; and the British Commander-in-Chief hoped that it would bring victory itself within sight. That, instead, it paved the way for the terrible battles of 1918 must be held a disaster for all the actors in this vast tragedy of humankind. The campaign was for both sides one of the most dreadful in the war¹: in terms of casualties the cost to the British and German nations was 720,000 in killed and wounded. It very effectively completed the business of mutual attrition.

The British offensive was made possible, (1) by an over-powering superiority in material of war, and (2) by the Allied advantage in man-power on the Western Front—due in some part to the fact that the Eastern Front was still an active seat of war. By the German plan of defence the human element was either sheltered in steel and concrete strong-posts disposed in echelon over the whole front, or else was held behind the barrage zone. British offensive tactics were designed to oppose to this material rampart a material force, namely, overpowering artillery bombardment. By each bombardment, or series of them, the infantry would be enabled to gain certain ground. Advance would therefore be made in a series of "set-piece" battles.²

These methods of attack and defence, together with the nature of the terrain and the weather, determined the nature of the medical problem and the experience of the medical service in these operations.

¹ Some German historians place it in this respect above the Somme and even Verdun, but in the Australian force, as a test of morale, it did not compare with the Somme.

² The "Third Battle of Ypres" has been called "the greatest battle of 'material'" in history. It was the logical consummation of methods evolved for attrition at Verdun, on the Somme, and at Arras.

The tactical objectives were, first, the capture of the whole line of heights culminating at the village of Passchendaele, which dominated the Ypres Salient. The moral and Plan of material attrition achieved in the process would campaign then (it was hoped) permit of a second stage a "break-through" and general advance to Roulers, forcing the Germans to abandon the Belgian coast.

The British Force. For this offensive the Fourth and Fifth Armies were brought up from the Somme. The Fifth took over from Second Army most of the front for the coming conflict. General Gough was charged with the conduct of the campaign, the Fourth Army placed on the coast for use in the second stage, after the capture of the high ground which it was hoped would be achieved by the end of August. A small French army was brought in to assist the Fifth Army's left.

The campaign opened on July 31st with the fairly successful Battle Pilckem.³ This victory was followed by a month of almost conof Pilckem.3 tinuous rain, which held up road and rail construction and movement of artillery.4 Unhappily, in the in-First phase. July 31-August tervals between battles imposed by the weather,

British man-power and morale were squandered in
a series of minor offensives after the manner of Mouquet Farm. In little over a month, August 5th-September 9th, British losses totalled 100,000.5

In the operations of August the Australian force was represented only by its artillery although on July 31st the 3rd Division had played a minor part in the Second Army's holding offensive near Messines.

These huge losses compelled a halt and drastic change of method. (a) The plan of "set-piece" battles, in fine weather, was to be strictly followed, and minor diversions eliminated; (b) though still kept in view, the purpose of a break-Second phase. Sept. 20-Oct. 12 through and strategic advance was to be subordinated to that of attrition; (c) the Second Army was put in charge of the major sphere of action, though the Fifth remained in control of the left.

The new offensive began on September 20th with the Battle of Menin

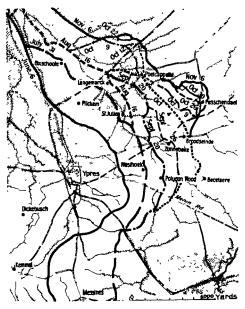
³ For the successive advances see sketch map on opposite page.

⁴ The terrain of this offensive had been reclaimed from swamp by an elaborate system of drains. In the terrific bombardments these were destroyed, and with the rains—expected in autumn—the low, flat countryside reverted to primitive morass. In the experience of Australian stretcher-bearers the mud of Flanders was less tenacious than on the Somme, but, as the fighting occurred largely in the rain, its influence on the course of the campaign was far greater—it was indeed a factor second to none in importance in the military situation. An epigram attributed to Napoleon affirms that to the four "primitive elements," earth, air, fire, and water, a fifth should be added, "mud." In the Great War, in no mere figure of speech, the qualities that inhere in mud, as such, made it a thing individual and elemental in its malignity.

⁵ At the end of August Field-Marshal Haig combed the ancillary services in France—cavalry, transport, railway-construction, labour corps, medical corps and clerical staffs—for "effectives" for the infantry.

Road, and was followed by the battles of Polygon Wood (September

26th), Broodseinde (October 4th), Poelcappelle6 (October 9th), and the "first" battle of Passchendaele (October 12th). The first three were among the most suc-cessful fought by the British Army in the Had it been followed fine bу weather the great battle of Broodseinde might well have come to rank with the "decisive battles of the world." In it Haig struck at the central point of the German defensive line in Flanders and the blow was a staggering one. But on October 5th came disaster, relentless and tragic, for from this date it rained persistently, and the whole shell-torn battlefield became a gigantic quagmire. To push forward the plank roads or duckboard



Successive Advances during Third Battle of Ypres.

tracks and light railways so as to move up the vast impedimenta of the set-piece battle surpassed human powers. In the battles of October 9th and 12th the Second Army offensives were thrown back with heavy loss, both in man-power and morale.

Throughout this phase of the offensive the Anzac formations played the leading part.

After the "first" battle of Passchendaele the idea of a push through and strategic advance in 1917 was abandoned. The Canadian Corps was brought up to take the leading rôle and the offensive was, however, continued into November in Oct. 14-Nov. 10 a series of battles in the mud, the purpose of which was to achieve a better tactical position. Both in

⁶ The names and dates given here to the confused series of "battles" that made up the last stage of the Flanders offensive follows the official British nomenclature. The Australian Official History names the battle of October 9 "First" and that on October 12 "Second Battle of Passchendaele." Officially the "Second Battle of Passchendaele" began with the Canadian attack on October 26 and ended on November 10 after the capture of Passchendaele

its purpose and its circumstances the fighting of this stage resembles that of the I Anzac Corps in November of 1916. The crest of the ridge was gained at enormous cost, to be held for a few months. When next year the Germans retook Messines ridge and the heights behind it, the British command voluntarily abandoned the ridges at Ypres in whose capture it had shortly before expended almost the whole British reserve of man-power.

In this last stage of the Passchendaele offensive the Australian force did little more than hold the line, but it sustained heavy casualties from shelling, especially with mustard gas, and from bombing.

The preparations for the offensive of July 31st, made by the Director-General of Medical Services, B.E.F. (General

Third Battle of Ypres. General medical scheme of Medical Services, B.E.F. (General Sloggett) and by the Director of Medical Services, Fifth Army (Surgeon-General G. B. M. Skinner) illustrate the major problems of these vast attrition battles. They mirror moreover a cardinal phase in the evolution of the

medical services in this war the outstanding feature of which was the fact that casualty clearing stations were now organised with a clearly defined purpose in view—namely, early surgical operation.

The Director-General's part "The preparations made for the offensives, more especially those for which the D.M.S., Fifth Army was responsible, were based upon an anticipation of the complete success of the operation."

On May 29th the D.G.M.S. held a conference of D's.M.S. of all Armies in which the needs of the Fifth Army were considered. These required the transfer of various medical units from other armies "in order to build up a medical strategical position in preparation for the part this Army was to play after Messines ridge had been captured by Second Army." By the end of July Surgeon-General Skinner had under his control 15 casualty clearing stations, 3 advanced depots of medical stores, 4 mobile laboratories, 2 X-ray units, 5 motor ambulance convoys, and 14 sanitary sections.

The casualty clearing stations were disposed as follows:—At Proven (Mendinghem) 3, for cases of lachrymatory gas and head injuries; at Dozinghem 3, self-inflicted injuries, infectious, and N.Y.D. Gas; Brandhoek 3 (including No. 3 A.C.C.S.), abdominal, severe chest injuries and compound fractures of thigh; Remy Siding 4 (including Nos. 2 and 3 Canadian); Haringhe (Bandaghem) 2, N.Y.D.N.

Approximately 1,300 marquees and 60 huts were provided for sick and wounded, of whom each marquee could take 10 and each hut 20. Accommodation was thus provided for 14,200, which in emergency could be increased to 20,000, at one time. Thirteen ambulance and four

⁷ British Official Medical History, General, Vol. III, pp. 140-144, 166

adapted trains were available for 12,000 cases on the first and 11,000 on the second day of the opening battle. "A special feature of the work of the medical services during these battles was the provision made for the surgical treatment of wounds in casualty clearing stations. For this purpose the number of surgical teams and other personnel sent to Fifth Army was greatly in excess of what had been possible during previous battles. . . . In the final phases the additional personnel in these units consisted of 46 surgical teams, 21 medical officers, and 195 other ranks in Second Army, and 28 surgical teams, 15 medical officers, and 140 other ranks R.A.M.C. in the Fifth Army."8

During the four months August to November nearly 8,000 stretchers were sent up to the Armies The British Historian comments: "What became of the enormous number of stretchers sent up to armies was at all times a mystery to those whose duty it was to endeavour to recover them." It is suggested that an answer could readily have been supplied by those who took an active part in the medical events of these battles. Like most quantities of other war gear, they were destroyed by shells or in exploded ammunition dumps, or they were left leaning against the sides of abandoned trenches, or around the inside or outside of pill-boxes, or in the sea of mud beside the duckboard tracks, where thousands of them were soon broken and broken again until (sometimes with their human burdens) they fed the soil from which the crops of Flanders spring to-day.

The dominant purpose in the general plan of the D.M.S., Fifth Army was to shorten the time between wounding and

The part of D.M.S., Fifth Army

surgical operation. In making his arrangements Surgeon-General Skinner built on the policy which we have seen at work on the Somme. In this he was strongly backed on the clinical Advisory Consulting Surgeon B.F.F. Sir

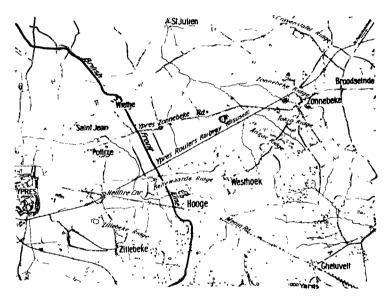
side by the Advisory Consulting Surgeon, B.E.F., Sir Anthony Bowlby. As much as the Army Medical Directors themselves, though from a different outlook, this officer was responsible for initiating experiments in evacuation, transport, and treatment that made these operations notable in the medical history of the B.E.F. These experiments involved: (I) The staffing of the Casualty Clearing Stations and their venue, and (2) the method of clearing the front. The first is part of the subject of a later chapter and calls only for brief reference here. The second provides the key-note to medical administration in these operations.

The Forward Policy—(1) The Casualty Clearing Stations. An ambitious but, as it turned out, ill-judged attempt was made in July and August to advance the venue of the surgeon on the principle of moving Mahomet up to the mountain For

three clearing stations brought up from the Somme (Nos. 32 and 44 British, and No. 3 Australian) a site was selected on a railway siding at Brandhoek on the main broad-gauge railway and adjoining the Ypres-Poperinghe road, only five miles from the front and on the direct road and railway routes from there through the Lines of Communication to the medical bases at Boulogne and Calais. At the end of July No. 32 British C.C.S. was made an advanced operating centre for "abdomens and chests." No. 44 British and No. 3 Australian arrived soon after it. Unfortunately, though otherwise admirably suited for the end in view, the site had the grave disadvantage that some British 15-inch guns were near by, and huge supply and ammunition dumps covered the adjoining area. All these were legitimate and obvious targets for German artillery. No. 32 British C.C.S. began work on July 31st with no less than 30 medical officers and 33 nursing sisters, with 8 tables going continuously No. 44 British and No. 3 Australian C.C.S's opened on August 14th. But all three stations were subject to such severe shelling and bombing that their removal was ordered by the D.A. and Q.M.G., Fifth Army. No. 3 Australian and No. 44 British C.C.S. were moved back to "Nine Elms"—five miles behind Poperinghe. No. 32, but with its female nursing staff removed, remained as a CC.S. "for walking wounded only."

The Forward Policy—(2) Direct Evacuation. Another experiment, initiated by General Skinner and implemented by his Deputy-Directors in order to promote the same end, attacked the problem from the side of transport Instead of advancing the major treatment centres, an endeavour was made to facilitate the rearward movement of the wounded to them. To achieve this purpose methods tentatively exploited by Fifth Army in the Battle of Arras were carried to their logical conclusion. A systematic attempt was made to short-circuit to the C.C.S. the general stream of casualties as well as "abdominals," "heads," and "thighs" by reducing to a minimum the treatment to be given in the "main" dressing station. Casualties were to be retained there only for inspection, recording, and urgent treatment. The injection of anti-tetanic serum was to be carried out at the C.C.S. Further to reduce "overhead" a "central record bureau" was created, which freed the advanced treatment centres from this time-consuming procedure. The problem of transport was met by pooling the ambulance vehicles allotted to the army corps (Motor Ambulance Convoy) and those of the divisions.

The experiment began with arrangements for the Battle of Pilckem. These were developed during August and were taken over in September by Second Army (and by the I Anzac Corps, which formed the spearhead of that Army). The reaction of the Deputy- and Assistant-Directors of Fifth Army to the new policy, as expressed in their several schemes of evacuation, though not part of the history of the Australian service, has a direct bearing on the development of its methods and calls for brief notice.



Chief Features of Terrain in "Third" Ypres

The Ypres Salient The chief features of the terrain—main ridge and its spurs, with intervening swampy streams (beeks) and lakes—

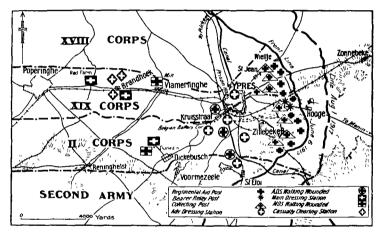
Fifth Army: Medical Arrangements July-August will be clear from the maps, which show also the British lines of advance. Of the communications, the most important from the medical standpoint were the historic Ypres-Menin road, and the Ypres-Zonnebeke road, which had survived three years of war and the traffic of ever vaster armies, and the

war and the traffic of ever vaster armies, and the Ypres-Roulers railway, although east of Ypres this then afforded little more than a landmark and boundary.

For the Battle of Pilckem each of the four Corps of Fifth Army

organised its own medical posts and routes. D.D's.M.S. were made responsible for the evacuation of wounded to C.C.S. from "main" and "advanced" dressing stations. The collecting of wounded from the battlefield and their removal to collecting posts and advanced dressing stations were carried out by the Assistant-Directors of the Divisions engaged. The methods adopted varied considerably.

II Corps. The arrangements for II and XIX Corps for the Battle of Pilckem, which were afterwards taken over by the Australian formations, are shown in the sketch map. The II Corps formed near Dickebusch two "main" dressing stations, one for severely and one for walking wounded. The first was manned by a full tent-division and subdivisions from no less than seven field ambulances. Three advanced



Medical Arrangements for II and XIX Corps, Battle of Pilckem Ridge.

dressing stations and four collecting posts were established. To clear from the advanced dressing station a "Corps combined motor ambulance convoy" was formed; the Ypres-Menin road served this Corps and the XIX.

XIX Corps For the XIX Corps two main dressing stations were formed, one at Brandhoek and one at the "Red Farm" with a Corps walking wounded station at Vlamertinghe Mill; with one A.D.S. in the Prison House, Ypres, and an alternative station at Kruiss-straat. Ambulance motor-transport was not pooled but remained under orders of the ADMS.

XVIII Corps. In the XVIII Corps, on the other hand, a divisional arrangement was adopted. An A.D.S. and collecting post for each division in line were cleared entirely by its own transport to a "corps main"

dressing station" for stretcher and walking cases, organised on a strictly divisional basis.

XIV Corps. With one corps main dressing station, advanced stations were formed for each division in the line with special transport to clear direct to C.C.S. The A.D.M S. of the Guards Division (Colonel Fawcus), in his diary, makes an interesting comment on clearance from this battle.¹⁰ Orders had been issued by the D.D.M.S. to the effect that "all the cases were to be dressed before being sent back direct to casualty clearing stations." The A.D M.S. observes that "if such a procedure was to hold good on future occasions more medical officers would have to be provided and larger accommodation made at the advanced dressing stations; and this would have necessitated the advanced dressing station being established much further back." He considers that "for an advance it was best to move and keep the advanced dressing station as near the line as possible, moving it as the line advanced; in fact, to make the advanced dressing station a loading post only and to clear all cases from it as rapidly as possible to a place further back, where the necessary dressings could be carried out in comfort." This procedure (the British Historian comments) "would have been in accordance with R.A.M.C. Training Manual and Field Scruce Regulations; an advanced dressing station, as laid down in them, was not intended to be more than a post at the place where wounded brought back on stretchers could be loaded on to wheeled traffic."

The questions raised by these two very distinguished officers¹¹ have a direct and intimate bearing on the experience of the Australian service in this and in later battles.

a.I.F.
July-August

Machine Medical work was at times very arduous and of no little interest but it did not present features calling for special study. At the end of August both Divisions were relieved for rest, reorganisation, and training.

A.I.F. Artillery. The greater part of the Australian artillery was attached to Fifth Army for the opening battles of the Flanders offensive and was stationed around Zillebeke lake.

For medical administration these artillery brigades came

¹⁰ The reference is from the British Official Medical History of the War, General, Vol. II, p 154.

¹¹ Col (later Lieut-General Sir) H B. Fawcus, who became DG, A.M S. at the War Office during the years 1929-34. and Major-General Sir W. G. Macpherson, Deputy DG M S., B.E F and Editor-in-Chief, Official History of the War, Medical Services.

chiefly under the British II Corps: the arrangements made for clearing their casualties are indicated later in this chapter.

The experience of these artillery brigades was not only unique in their own history but was of outstanding interest in that of the A.I.F. In this battle the British guns by reason of their vast number—one to each six yards of front—were emplaced in the open so that the incidence of casualties in the gun teams was limited mainly by the weight of metal that the enemy could throw against them. The courage and staunchness of the medical personnel attached were severely tested, and, with the gunners, they came through the ordeal in a manner that much enhanced the prestige of the Australian troops.

Tyble I—Casualties in the Australian formations during July and August 1917.

	Killed or Died of wounds			Wounded or Gassed		Total
Artillery	• •	298		1,077		1,375
A.A.M C.		18		37		55
Others .		937		2,815		3,752
Totals		1,253		3,929		5,182

The British Second Army which at the end of August took over the conduct of the offensive from the Fifth had from early 1016 until Messines been a military backwater; Second Army: the conservative "safety first" policy of its September D.M.S (Surgeon-General Porter) was in strong contrast with the aggressive methods of Surgeon-General Skinner. But the movement in the medical service, which we have called the "forward policy" in respect of the treatment centres, was not a mere matter of individual initiative—it was the implement of a revolution in surgical technique born of new ideals and urgent needs; and under Second Army, during September and October 1917, the Australian Medical Service, con amore, exploited its possibilities to the utmost. Inasmuch as the line advanced, but the loading posts did not, the need for passing wounded men quickly along the transport routes became more and more urgent. The medical interest of these operations is found chiefly in the toils and trials of the bearer divisions. who with every advance must "drag at each remove a lengthening chain" of relays. The problem that faced the medical directors and ambulance commanders was-how best to offset this handicap, so as to save alive not only "abdomens," "chests" and "femurs," but any man severely wounded in or near the front line.

During June, July and August the I Anzac Corps—1st, 2nd and 5th Australian Divisions¹²—was "happy in having no

I Anzac Corps. 1st, 2nd, 4th, 5th Divisions history." No trials of battle could so effectively have prepared the Australian force for the part it had to play in this last terrible battle of attrition, and in the war of move-

ment in 1918, as did these three months of rest, training and reconstruction during the summer of 1917 in Picardy. All the formations were brought to strength, and the medical units were never better equipped or more exactly trained.

Early in August the 1st, 2nd, and 5th Divisions moved to the Hazebrouck-St. Omer area, and there under Second Army

Move to Flanders

during six weeks¹⁴ were prepared for a part in the decisive blow.¹⁵ From the end of August the medical officers concerned reconnoitred the

battle-front and prepared for the coming battle. On September 1st Colonel A. B. Soltau, Consulting Physician of Second Army, lectured to medical officers on "the treatment of mustard gas effects." ¹⁶

The fighting of Bullecourt and Messines had effectively killed the project of forming a 6th Division, the personnel already allotted to it was absorbed as reinforcements together with large numbers from the Command Depots See Chapter xvi

¹³ The 4th Division rejoined the Corps at the end of August.

¹³ The ambulance transport service in all field ambulances was reorganised, drivers instead of being "A A M.C" were made "A.A S.C." Seven motor ambulances were provided in place of seven of the horsed-waggons, three of the cars being light Fords. The fighting of Bullecourt and Messines had effectively killed the project of forming

¹⁴ All medical unit diaries for September are emphatic in recording a high standard of strength, efficiency and morale. On September 2 the 1st Field Ambulance (1st Division) was at full strength with 10 officers and 231 other ranks together with 41 additional to establishment. The 5th Field Ambulance (2nd Division) near St. Omer was in billets "which gave admirable facilities for training and recreation. The morale of the men had larely been better, a common opinion (was) prevalent of big things in the near future, and that the Australians would be given a prominent part."

¹⁵ Like the battalions the medical units at this time, having spare time on their hands, were officially encouraged to help in the harvesting. For the 10 days, August 13-23, the 3rd Field Ambulance returned to Brigade a total of 520 hours' work done by 35 men and 10 horses using 5 G S waggons for "harvesting and potato digging".

¹⁰ This gas had been used for the first time in the second week in July when Ypres and Nieuport were heavily shelled with "Yellow Cross". The British respirator in use was, however, effective and within a fortnight defensive measures and treatment had been designed. But from this time till the end of the war these shells were an important weapon and the conditions of these operations were peculiarly suited to their use. For a detailed consideration of the subject of chemical warfare, see Vol. 111

Even before the decision to replace Fifth Army by Second for the next advance, I Anzac Corps had been selected to take the place of the II British Corps as the spearpoint of the assault Second phase against the main ridge, about the point where it was Second Army crossed by the Menin Road. Against this high ground and I Anzac -Glencorse Wood, Nonne Bosschen, and the slope

towards Zonnebeke beyond the Bellewaarde and Westhoek spurs—during August attack after attack had been launched by the Fifth Army at terrible cost—casualties in the II Corps alone amounted to 27,300.

The two first battles in the new phase were closely related in their tactical objective and military circumstances, and also in the nature of their medical problems. Each was a typical "set-piece" battle—their purpose, to place the British front line astride the main ridge in preparation for a general advance on Passchendaele.

The first battle, that of the Menin Road, was to be fought by the Second and Fifth British Armies (Generals Plumer and Gough) and First French Army (General F. P. Anthoine). The British order of battle was, from right: X British and I Anzac Corps (Second Army), and V and XVIII Corps (Fifth Army). The attack was on a front of ten miles; the objective was limited by a map line whose attainment would advance the British front some 1,000-1,500 vards.

Between September 12th and 15th the 1st, 2nd, and 5th Divisions moved up to the Reserve area behind Ypres. Relief of the II Corps was effected on September 16th and 18th by attaching to the I Anzac Corps the British 25th and 47th Divisions which held the line, while the four Aus-

tralian brigades which were to attack moved up.

Rôle of I Anzac

The Australian force was set the chief task—an advance on a two divisional front from the Hooge and Westhoek spurs through Glencorse Wood and Nun's Wood-"Nonne Bosschen" of dreadful memory. Behind the front line the divisional areas and traffic routes were separated by a dismal swamp-the Bellewaarde "lake." The advance was planned for three successive leaps to the "Red Line" (800 yards in 44 minutes from zero, followed by a halt of one hour); to "Blue Line" (4-500 yards, two hours from zero, with a halt of two hours); to "Green Line" (2-300 yards, four and a half hours from zero).17

The Divisions. The 1st and 2nd Divisions, right and left, were to attack in the direction of Polygon Wood, each with two brigades in line and one in reserve, the attacking brigades mostly using all their battalions, which "leap-frogged" one another at the several stages.18

Administration. In the area transferred to Second Army

¹⁷ The long halts on the intermediate objectives were arranged in order to allow the line of attack to be reorganised. They were an important factor in regimental medical work.

¹⁸ For the Battle of Menin Road the light and medium batteries of I Anzac Corps were for the most part massed about the level of Bellewaarde and Hooge. The approximate positions of the artillery are indicated in the sketch map, at p. 202

the replacement of Fifth Army by Second went pari passu

Battle of Menin Road. Medical arrangements with that of II Corps by I Anzac. Instead of the incoming Australians, as on the Somme, being wedged at briefest notice between two formations, in the present operations an established system of relay and treatment posts was

taken over from the II and XIX Corps and modified to suit the tactical developments. Save for some general rules similar to those laid down for the Battle of Messines, the medical arrangements for the Corps were for the most part left by the D.M.S., General Porter, to the Deputy-Director, Colonel Manifold, and his Divisional staffs. In the I Anzac Corps the spheres of action and initiative proper to Corps and Divisions were by now clearly defined, and the relations between the officers concerned were cordial and co-operative. At the same time the field ambulances could be relied on to give prompt effect to orders and instructions, and their commanding officers were closely in touch with the Assistant-Directors and Deputy Assistant-Directors. In other words, direction and executive had been integrated in a very effective unit of action, 19 which was now to be tested as perhaps at no other time in the history of the Australian force.

The General Scheme. On September 5th Corps Headquarters moved to Hoograaf: on the same day Colonel Manifold conferred with the Assistant-Directors, and the essential features of the Corps scheme were arranged. All cases "fit to travel the distance" would go direct from the A.D.S. to the C.C.S group at Remy Siding, which had been allotted to the I Anzac and a British Corps. A "Corps Main Dressing Station" would be maintained only "for such cases as could not be taken further." For the duty of clearing the front line to the A.D.S. in the first battle the A.D's.M.S. 1st and 2nd Divisions (Colonels R. B. Huxtable, and A. Sutton) nominated the 3rd and 5th Field Ambulances, and during the next week the officers commanding these units (Lieut.-Colonel A. G. Butler and Major J. J. Nicholas) and the D.A.D's.M.S. (Majors W. J. Stack and H. K. Fry) reconnoitred the routes. A novel and interesting

¹⁸ Evidence of this efficiency is found in the consecutive orders and instructions issued by the several formations and units, in the admirable operation and progress reports furnished to the A D's M S by commanding officers, and in the frequent conferences, formal and informal, and prompt action contingent thereon.

scheme of clearance and evacuation was devised for the pending battle which with necessary adjustments served the Corps throughout the operations.

The Situation. The front to be taken over extended some 2,000 yards from the Menin Road south of Glencorse Wood—slightly in rear of the crest of the ridge—to Westhoek spur. It was held on a two-brigade front by the 47th (British) Division and was cleared from aid-posts at "Clapham Junction" and Westhoek via "collecting" and "loading" posts on the Menin Road at "The Culvert" and "Birr Cross-Road" to an advanced and walking wounded dressing station on the Menin Road some mile in front of Ypres. The scheme was quite inadequate to the requirements of two Divisions in a great battle. Moreover certain features in the situation made necessary some departure from the normal method of working the field units. These features were:—

(1) The fact of the A.D.S. being used as the chief ambulance treatment centre and pivot of evacuation. (2) Certam peculiarities of the terrain—in particular the circumstance that the Bellewaarde swamp and the morass of Nonne Bosschen lay between the routes from the two fronts, which converged to common loading posts on the Menin Road. (3) The fact that motor-transport to the A.D.S. was wholly confined to a stretch of some 2,000 yards of the Menin Road, constantly shelled, and shared by the two Divisions for every purpose of communication with their fronts.

Wheel Traffic Routes. Another factor, of vital importance in the medical problem, as it was in the military, was that of traffic routes From early in September, under the direction of C.R.E. I Anzac, the Divisional Engineers and the Pioneer and Labour Battalions were occupied at high pressure constructing roads and light railways, the extension of which was essential to continued advance by the troops, and not less so to any scheme for the retirement of their wounded. At this time the situation was briefly as follows:—

Roads. The sketch map on page 202 shows the two main circuits, rear and forward, on which the use of wheeled-transport was based. The rearmost of these—completed by September 20th—was a metalled or double plank road; the forward circuit, a "one-way" single plank road, was under construction. In addition to these roads, double and single duckboard tracks reached out across the waste. Off these, even before the rains, movement on foot was difficult, and transport by wheel almost impossible.

Light Railways and Tramways. The I Anzac Corps specialised in these and (in spite of previous adverse experience on the Somme) they were expected to play an important part in evacuation. By September 20th the light line ran from Birr Cross-Road past Zillebeke and Dickebusch,

to supply railhead near Remy Siding. A switch with a special siding ran to the A.D.S.

The Detailed
Plan, I Anzac
Gorps

The scheme arranged by the Deputyand Assistant-Directors was set forth by the
former²⁰ as follows:—

"A.D's.M.S. of the Divisions concerned will be responsible for (1) The arrangements for the evacuation of wounded from their

Divisional front to collecting posts in the vicinity of Menin Road from which the A.D.M.S. 1st tralian Division will be responsible for the evacuation by ambulancecar to A.D.S. of all stretcher cases, of both Divisions, and the A.D.M.S. 2nd Australian Division for the evacuation of all lightly wounded of both Divisions. In the event of evacuation along Menin Road by Ambulance-car impossible, arrangements must be made for carriage by wheeled-stretchers bearers. or A.D's.M.S. will mutually arrange the necessary details.21

"These officers will arrange also for (2) the staffing of all Ambulance posts and their stocking with equipment, water and dressings. (3) the 'flagging' for all routes of clearance; (4) the formation of new advanced dressing stations."

A Bearers of Surface o

Scheme Showing Allocation of Responsibility, Battle of Menin Road.

Evacuation from the A.D.S. would "be under Corps arrangements."

Transport. The elimination of the main dressing station made necessary a complete readjustment of ambulance transport. The motor ambulance transport of the Corps (No. 20 Motor Ambulance Convoy) and of the Divisions was pooled to form a "Corps combined convoy" of 82 cars (50 M.A.C. and 8 from each Division). This was put under the Officer Commanding the M.A.C. and was parked at Dickebusch to serve the rear circuit (A.D.S. to C.C.S.). For the forward circuit loading post

²⁰ In "Medical arrangements, operations No 5," issued on September 15. These occupied 10 pp of foolscap Orders of the two A D's M S were issued on September 13. A particularly interesting contrast is afforded by those for the A I F's last battle of the war. ²⁹ Sept. 1918. qv, pp 739-42

²¹ The diagram, above, shows that this scheme could claim at least an anatomical analogy.

to A.D.S. a small convoy, formed by pooling 3 large and 3 Ford cars from each Division in the line, was put at the disposal of the A.D.M.S. 1st Division. The horsed-waggons remained with Divisions.

Special provision was made for the use of light railways for both stretcher cases and walking wounded. For the latter a lorry "convoy" of 20 lorries (Corps) and 20 buses (Army) was to be available for the A.D.M.S. 2nd Division.

Regimental Establishments. It was accepted generally in I Anzac Corps that brigades and battalions were responsible for clearing all casualties from their fronts to the Regimental Aid-Posts, and for first aid in the field.²² The duty of maintaining liaison between the R M.O. and the ambulance bearers was accepted by the field ambulances. A paragraph in the orders of the A D.M.S. 1st Division laid down that

"the commanding officer" [of the 3rd Field Ambulance] "will ensure that contact is kept with all new R.A.P's which may be established during the advance and will clear the wounded from them and the ground over which advance has been made."

At this time, however, the dual allegiance of the R.M.O. to his regiment and to the Medical Service was often imperfectly adjusted and defects in this matter were not infrequent.

The regimental bearers—commonly 32—invariably went into battle with their companies. The R.M.O commonly kept with him his medical orderly and "A.A.M.C. corporal."

Base and Reserves. The technical details that follow are epitomised from Divisional diaries. The arrangements were applicable only to the requirements of a battle of attrition.

The resources of the two field ambulances responsible for clearing the line were disposed in echelon to serve the purpose of relief, reinforcement, and supply to the front. (I) Both units established head-quarters, depot, and transport lines behind Ypres, the 3rd Field Ambulance at "Château Hendrique," the 5th at "Belgian Battery Corner." Here bearers, when relieved, were rested and fed; and from here, as a base, the forward stations and posts were supplied and rationed by the quartermasters. In each unit many hundreds of two-gallon petrol

²² At least in the 4th and 5th Divisions this was laid down precisely in Standing Orders. The officer in charge of the 5th Division's field ambulance bearers, when taking over the line for the Battle of Polygon Wood, "met the Divisional Commander, General Hobbs, who enquired as to my dispositions. I was directed by him emphatically to confine my bearers solely to relaying wounded from the R.A.P's to the rear."

tins were collected and marked with red cross to be sent with water in specially fitted carts to the front. Rations were done up in sandbags labelled for each forward post and were sent by supply waggon to the advanced dressing station or waggon loading post for further distribution by returning bearer squads. Each unit built field ovens to roast for 600-700 men and fitted up comfortable sleeping quarters. By such means the bearer divisions were sustained in their immense labours. Medical and Red Cross stores were assembled and dressings prepared and sandbagged for distribution to the forward ambulance posts and to the R M.O's.²³

These stations served successive units throughout the operations.

- (2) Advanced Reserve Stations. Quarters to accommodate a full bearer division were formed by both field ambulances, by the 3rd in immense cellars beneath the "Ypres ramparts" some 20 minutes by route march from the advanced dressing station; by the 5th in the "canal dugouts."
- (3) Local Reserves of personnel, transport, and stores were held at the advanced dressing station and in various advanced posts on the lines of clearance.

Reserves of Bearers—Divisional. The bearers of those field ambulances that were not themselves in the line, but whose Divisions were, remained with their units. For the battle they were "attached for duty" to the unit clearing the front and were controlled by the A.D M S.

Corps. The bearers of the Divisions in reserve constituted the "corps reserve," controlled by the Deputy-Director.

Lines of Clearance. Special officers were detailed by both units (1) to direct the work of the bearers; (2) to control the motor circuit; (3) to supervise treatments and evacuation at the A.D.S.

Bearer Circuit: 1st Division. The 1st Division's front lay some 3,000 yards in advance of Birr Cross-Road and was reached by the Hooge Ridge, along which ran the Menin Road—available for traffic only as far as "The Culvert." A vast mine crater marked the site of Hooge whence, beneath the road, as far as the crest of the ridge at Clapham Junction, ran the remains of the "Hooge Tunnel."²⁴

The "chief difficulties" met were:-

²³ The importance of the work of the ambulance quartermasters achieved general recognition in these operations. It is perhaps permissible in a technical history to commend to prospective commanders of field units the "lessons" of this war on the matter.

²⁴ This remarkable work had been constructed by the Germans with typical thoroughness to protect their reliefs. It was some 6 ft. wide by 8 ft. high, and was protected by from 5 ft to 6 ft of roadway, with a buffer space of 2 ft above steel girders lt was lined with solid baulks of timber.

(1) Lack of accommodation for R.A.P's and relay posts. (2) Direct enemy observation of the whole left brigade front. (3) The exposed carry down the Menin Road from Clapham Junction. (4) The nature of the country on each side of this road which almost cut out alternative routes. (5) Complete absence of supplies in the forward posts.

By vigorous initiative and hard work by the bearers²⁵ most of these had been at least partly met before zero day.

Temporary aid-posts were formed in conjunction with the X Corps at Clapham Junction in a sector of the tunnel (right), and in a much-shelled pill-box (left). For relays and depots the Engineers opened up various sections of the Hooge Tunnel, in particular a fifty yards stretch at the point where the routes from right and left brigades should converge. Here side galleries were dug and accommodation was provided for personnel and stores, and a dressing room for 30-40 stretcher cases The left front was cleared, till the line should advance, through Clapham Junction. A new track was made along the south side of the Menin roadway and an alternative route for walking wounded through the X Corps posts, "Stirling Castle" and "Woodcote House" A.D.S.—historic names in the annals of the Salient. In return, the X Corps would clear its left brigade through the Menin Road posts and the I Anzac A D.S. Stores and equipment were brought by transport to the loading posts and man-handled to the forward posts.

2nd Durision. "A preliminary estimate of 2,000 wounded was made; of this 500 were reckoned as stretcher cases. Our line ran about 800 yards in front of Westhoek Ridge. It was decided to use Bellewaarde ridge as our main forward post and dump for materials, with a rear dump at Birr Cross-Road. At Bellewaarde the one pill-box was reserved for shelter, and two 'elephants' 27 were built by ambulance bearers, one for material and one for a dressing post. The advanced depot supplied 200 Thomas splints and other equipment; dressings were prepared for 2,000 cases. Bearers were posted at the two R.A.P's on Westhoek Ridge, and directing signs were placed on the very difficult tracks leading back to Bellewaarde Post" (Report of the officer-in-charge of the bearers—Ma). C. L. Chapman.)

Two bearer carries were worked out: (1) north of Bellewaarde Lake clearing to Birr Cross-Road via "Simon's Post" relay; and (2) south of the lake by Château Wood, clearing to "The Culvert."

Waggon Posts. This stretch of road—some 500 yards— "lined with its blasted tree stumps, flanked by a continual ridge built of dead mules and horses, limbers, waggons, guns, ammunition, ambulances

²⁵ The divisional bearer reserves were used for such fatigue work as well as the personnel of the units clearing the line

²⁸ Near the front line shelter for aid-posts of for relays or any other purpose (such as Battalion headquarters) was to be found only in the captured German strong-posts. But these had the grave disadvantages that they were a focus for enemy shells as well as for all and sundry wayfarers, and that the entrance faced toward the enemy. In spite of this it is hard to see how the offensive could have continued without them—they played the same part as the deep German dugouts on the Somme

[#] That is, "elephant iron" shelters



27. Wolner it appearably hild in altheolither on the Men's role dering the Bath of 2011 Sigh made, 1917 The officer with Landaged arm is Major G. A. M. Heydon, R.M.O., 8th Battalion. A dump of stretchers is seen on the right And Han Momental Offered Photo No E711



28. THE ADVANCED DRESSING STATION ON THE MENING PURING THE FIGHT OF 20TH SCPTEMBER, 1917

The chamber shown is a cellar under the building in plate 25. The clerk in the toreground is filling in field medical cards which were tied on to patients.

Aust II at Momental Official Flieto No E715

and the whole paraphernalia of war, wrecked on that highway and tossed aside,"28

formed a bottle-neck through which in the next two months was to pass a not inconsiderable part of all the casualties sustained by the A.I.F. in France. At this time here were the loading post and focus of clearance for all the "stretchers" and "walkers" of the two Divisions, and the headquarters of the staff allotted for this work, and in addition the road- and railhead, and medical supply dump for the two Divisional fronts. This was the testing point of the "mutual co-operation" which Corps orders enjoined on commanding officers. Both field ambulances worked to provide accommodation at Birr Cross-Road and "The Culvert" and both supplied personnel for the posts there. At Birr Cross-Road, in "some deep and damp dugouts," racks were put up to hold a few stretcher cases. At "The Culvert" four elephant cupolas were built by the Engineers.

"Stretchers." The "forward" ambulance convoy carried stretcher cases from here to the A.D.S.

"Walkers." Duckboard tracks north and south of the Menin Road were marked with notices directing the walking wounded to the A.D.S To short circuit that post a route was arranged from Birr Cross-Road by light railway or duckboard tracks past the Zillebeke Bund to an "ambulance post" at "Shrapnel Corner."

The combined advanced and walking wounded dressing station taken over from II Corps was located in two ruined

Advanced Road

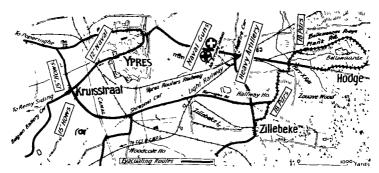
buildings on the Menin Road about a mile east of Ypres and had been in use for medical Station: Menin purposes since 1915. It was Colonel Manifold's orders reorganised separate stations:—

"(a) for all stretcher cases, on the north side of Menin Road, under the A D M.S. 1st Australian Division (3rd Field Ambulance), (b) for lightly wounded, directly opposite south of the Menin Road, under the A.D.M.S. 2nd Australian Division (5th Field Ambulance).

"Every effort must be made to clear casualties as soon as possible after the treatment their condition requires. Without causing undue delay all wounded will be supplied with hot drinks and so forth."

²⁸ Quotation from Reveille, Sept 1936, \$ 22,

The site was only a few hundred yards from heavy artillery positions, and throughout the operations the stations were subject to shell-fire. They sustained a few serious disasters, and had many narrow escapes.



Routes of Evacuation from Birr Cross-Road, Sept 20-26; and Artillery Positions.

A.D.S. to C.C.S.

"Corps
arrangements"

The elaborately detailed "arrangements"

of the Deputy-Director for evacuation from
this point to the C.C.S. can be epitomised as
follows:—

"Lightly wounded" to be evacuated by narrow-gauge railway from a special siding, or by lorries or buses "which will go direct to C.C.S. by the shortest route permissible, and will NOT go to the Corps Main Dressing Station." Stretcher cases to go by light railway or motor ambulance waggons of the "Corps combined convoy." These to be classified (A) "long distance," fit for through journey to C.C.S. by the long route via Corps main dressing station; (B) "short distance"—shock, gas, haemorrhage, etc., to go direct to M.D.S.; (C) immediate operation—abdominals, etc.—to be sent direct to C.C.S. via Poperinghe road. Vacant places on "C" class cars to be filled by "A" class cases. Others to go whenever possible by light railway for which an hourly service of trains would run, consisting of eight trucks, each truck to take eight stretchers. Otherwise "A" cases would go by cars of the motor ambulance convoy.²⁹

Corps Main

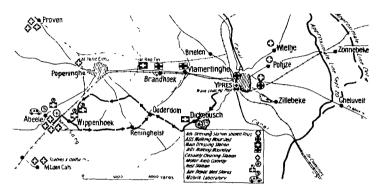
The scheme prescribed that at the Corps

Dressing Station main dressing station at Dickebusch

"All cars and trains will be met by an officer, who will unload all 'B' class patients—haemorrhage, shock, and so forth, and all gas cases; only cases requiring immediate treatment to be given attention; no redressing to be done unless absolutely necessary."

²⁹ The A. B, and C Circuits and Scheme of Evacuation for Sept 20 are shown in the map at p 273 See also Appendix No 9 for the French system

A gas treatment centre was formed and accommodation found for the Corps Reserve of bearers and medical stores—for which 2,000 blankets and 1,500 stretchers were supplied by the D.G.M.S., B E.F., through Second Army.



Scheme of Evacuation, "Third" Ypres, Oct. 1917. The arrows show main route of evacuation to C.C.S.; urgent cases went to Remy via Poperinghe. (Inserted here to show C.C.S's. See p. 223.)

Records. Further to promote the idea of rapid evacuation it was arranged that no records would be kept at the A.D.S. or M.D.S. "except those of deaths, and of cases treated and returned to duty." The "Corps Central Record Bureau" was moved from Dickebusch to the 5th Divisional Rest Station at Remy Siding, and arrangements were made to take the prescribed particulars of casualties at the admitting room of the C.C.S. Divisional returns would be made up and consolidated at the Central Bureau. The Officer Commanding the 6th Field Ambulance (Lieut.-Colonel A. H. Moseley)³⁰ was put in charge and a clerical staff drawn from each Division.

This renowned centre of surgical work and research comprised at this time four units—2nd and 3rd Canadian, and 10th

The C.C.S. Group Remy Siding and 17th British. Among the extra staff were surgical teams from No. 1 A G.H. at Rouen. During the operations tent sub-divisions from each field ambulance in turn were "attached

for duty."

²⁰ Later it was under Major D. S. Mackenzie, 3rd Field Ambulance who had special experience in this matter

On September 17th the 1st Field Ambulance (Lieut.-Colonel E. T. Brennan) took over the Corps main dressing sta-

The move up sept. 17-19

tion. Rest stations for each Division had already been occupied. Between September 14th and 18th the Commanding Officers of the 3rd and 5th Field Ambulances took over the forward posts clearing the brigades in line and replaced the 6th London Field Ambulance in the advanced dressing station. Through this post during the next eight weeks were to pass approximately 15,000 Australian battle casualties.

Each commanding officer had available for zero day 3 bearer divisions at full strength, totalling 12 officers and 324 other ranks. On the 17th the Divisional reserves—1st, 2nd, 6th, and 7th Field Ambulances—moved up to the Ramparts and Canal Dugouts. A tent division was posted to the A.D.S. and one tent sub-division to the walking wounded post. Till zero hour every available man was at work. Posts were sandbagged and gas-proofed and routes surveyed. Shelling on the front and on traffic routes was heavy and casualties, chiefly from the Pioneer Battalions, Engineers and Artillery, were severe.³¹

On the 19th bearer officers moved their Divisional reserve squads to the forward stations along the Menin Road and Bellewaarde Ridge. In the 1st Division bearers for the R.A.P's were posted at Clapham Junction to clear the right brigade; those for the left were stationed in the Hooge Tunnel, to move up when the battle opened.

In the 2nd Division

"by dint of great efforts" the bearers completed the work at the collecting post on Bellewaarde Ridge at 3 a.m. on the 20th. Reliefs were posted without casualty and details set out for the R.A.P's. By 5.40 a.m, when the barrage opened, "all the arrangements were complete and everybody was confident." 32

The Battle of Menin Road "is easily described inasmuch as it went almost precisely in accordance with plan. The advancing barrage won the ground; the infantry merely occupied it."33 Casualties occurred chiefly from shell-fire in the approach and on the tapes and later around the strong-points. The counter-attacks were shattered

 $^{^{31}\,\}mathrm{On}$ the 18th a single shell from a long range gun searching for the artillery emplacements killed 5 bearers of the 1st Field Ambulance and wounded 14 others in front of the ADS

³² From a report by Major C. L. Chapman.

²³ Australian Official History. Vol. IV, p. 761.

by artillery before they approached the line and were quite ineffective. Casualties in the two Divisions on the 20th and 21st numbered 947 killed, and 3,283 wounded, of whom 114 died.

The staggering effect of this first blow upon the enemy was reflected in the conditions under which the wounded were evacuated. The A.D.M.S. 1st Division (Colonel Huxtable) summed up the day in his war diary as follows:—

"September 20th, 11 p.m. The O.C. 3rd Field Ambulance called at Headquarters to report, and states everything going very satisfactorily. Cases have been cleared from the front line with amazing rapidity. Blocking of Menin Road occurred from time to time but it was due to the amount of traffic, ammunition limbers, lorries, etc., which held up the ambulance waggons. Practically no delay by enemy shelling on the road, which we all so greatly feared."

This immunity (it should be said) did not include the area over which the troops advanced, nor did it last beyond the first thirty-six hours.

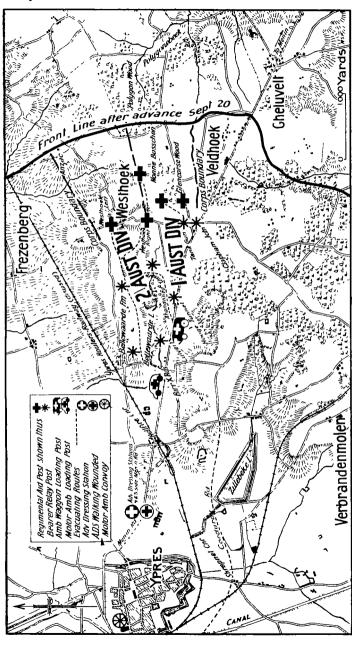
thirty-six hours.

In each division in this battle, as in the later ones, the R.M.O's of the five or six attacking battalions worked in

The Divisional fronts groups of two or three, and for the most part followed closely after the advancing battalions, often going forward before the regimental bearers had cleared the wounded from the first

objective to the old aid-posts. These rapid moves, together with some failure on both sides—regimental and ambulance—in the very difficult matter of "keeping touch," led at times to delay in locating wounded—and this to some mutual criticism.

1st Division. From the right (2nd Brigade) 2nd Field Ambulance bearers cleared casualties via Clapham Junction, which became the first relay, to the new Hooge Tunnel post, whence they were "relayed" to "The Culvert" loading post. In the left (3rd Brigade) the R.A.P. of the 11th and 12th Battalions was "blown out" and the R.M.O. of the 12th Battalion, Major Johnston, was wounded. Runners sent from this R.A.P. to direct the ambulance bearers were wounded and the first "bearer party" failed to locate the R.M.O's. At 8 a.m., therefore, the bearer officer responsible (Captain L. May)



THE BATTLE OF THE MENIN ROAD—THE SCHEME OF CLEARANCE AFTER THE ADVANCE OF 20TH SEPTEMBER, 1917

"with eight squads pushed out into Glencorse Wood to find the R.A.P. Shelling terrific but the loose soil saved casualties. Found 11th and 12th R.A.P., set my squads to work, and soon had things in order."

The R.M.O's of the 9th and 10th Battalions (Captain R. K. Rae and Major S. V. Appleyard) were found "in a fine strong post, containing four rooms, in a sunken road." During the morning the R.M.O. 8th Battalion (Major Heydon) was wounded. At 3 p.m. Major H. H. Willis, acting R.M.O. in the 7th Battalion, reported that he was

"badly in need of bearers and stretchers. Despite our distance from the line the regimental bearers are now clearing us more rapidly than the ambulance is clearing back."

By 3.30 p.m. the Corps reserve of bearers—from the 12th and 13th Field Ambulances—was en route, and proved quite adequate, and by nightfall the bearers were clearing the two brigades by routes which converged to "Tunnel Post," now some 1,000 yards from the front line.

Throughout the day shell-fire was severe in the captured area. Captain May (3rd Field Ambulance) records that he

"ended up with four fit squads, fifteen men wounded, five missing and five worn out. Bearers all thoroughly done up."

Collecting Post. From about 8 a.m. casualties went through rapidly, "fifteen (stretcher cases) the first hour and then (about) forty an hour." The officer-in-charge found himself compelled to carry out much surgical treatment, chiefly for haemorrhage—to adjust or replace splints—and for "redressing," this work being done for the most part in the open but, on this day, with comparative impunity.

2nd Division. The clearing of the left sector of the front was not less satisfactory.

"It was not till 8.30 a.m. that the wounded began to come through to the collecting post in large numbers; from then on there was a constant stream, but the bearers were quite able to cope with the work, and German prisoners of war were made free use of. At midday shelling was severe and the new Bellewaarde station knocked in. As the line advanced nearly a mile, and R.A.P's had moved on, the 7th bearers (Divisional Reserve) were brought up. In the meantime the 19th Battalion had lent over 100 men at a critical moment. The tram trellies

were blocked by the ammunition coming forward. Reinforcement of bearers (Corps Reserve) at 5 p.m. cleared the line. In less than ten hours nearly 600 stretcher cases were cleared without any congestion."34

The Loading Posts—Stretchers. For the first thirty-six hours the officer-in-charge of transport had little trouble. Horsed-waggons worked as far as Bellewaarde and The Crater. A "hold up" at The Culvert about 11 a.m.—when as many as forty-five stretcher cases lined the road—was met by forming a local circuit of Ford cars, which cleared between the two loading posts, connecting at Birr Cross-Road with the circuit of heavy cars, augmented for a few hours from the Corps Convoy.³⁵

Walkers. The 3rd Field Ambulance diary remarks that walkers "had no difficulty" when once past the forward relay posts. At 6 p.m. trains cleared walking wounded direct from a light-railway siding near Birr Cross-Road via M.D.S. to Remy Siding group.

The advanced dressing station had been established by dint of much hard work on the part of previous occupants, and the incoming unit had spared no pains to fit the station for its most stretcher cases

The station at Menin House was formed [says Major Crowther]³⁶ by clearing out the cellars, reinforcing the ruins with sandbags, and erecting "elephant iron" cupolas. Patients were slid from the road down an inclined plane into the "operating room" where 3-4 "teams" could work at once. Good lighting was received by day from the road and by night from the portable acetylene outfits. At one end of the dressing room was a small cellar used by medical personnel—the rest bivouacked among the ruins or in the open. An excellent "mustard gas" treatment room was formed in a cupola with special staff and full supply of pyjamas (Red Cross) and blankets. Full and exact rules were laid down for the treatment of these cases.

Stretcher cases began to arrive at 9 a.m. and the numbers reached a maximum about 11 a.m. At that time "some congestion occurred owing to the difficulty of passing wounded

³⁴ From the war diary of the 5th Field Ambulance. Estimates made by officers in forward posts were almost always excessive. The number of stretcher cases admitted to the ADS, Menin Road, by 4 pm. was 205, in addition 30 cases were waiting at The Culvert and 40 at Hooge

²⁵ The Officer-in-Charge of the Convoy—Major Stack, R A M.C.—combined enterprise and initiative with excellent discretion in his novel command. Officially motor ambulance convoy cars worked only behind the M.D.S., here, motor ambulances as well as lorries from the "combined" convoy worked in front of the A.D.S.!

³⁶ Of the 14th Field Ambulance, who, a few days later took over this station.

through the station quickly enough " It was relieved by cutting out for a time the "A" circuit and the A.D.S. All wounded arriving from the front who did not require immediate care were sent direct to C.C.S. or M.D.S.

The nature of the work done at this station varied somewhat with circumstances. In this battle (says Major Crowther) "casualties were taken in rotation to the 4 tables, splints adjusted, haemorrhage treated, resuscitation done—carried again to the Motor Ambulance Convoy, and thence to the C.C.S. group."

Walking Wounded began to arrive at the A.D.S. at 7 a.m. and then "came in a steady stream." Prisoners of war for the most part went past the Bund to "Shrapnel Corner"; the officer-in-charge (Major A. L. Buchanan) observed that their wounds were often very severe. The A.D.S. a quite elaborate station had been designed for the walking wounded. The R.M.O. of the 5th Field Artillery Brigade (Captain G. B. Lowe), who was assisting, noted:—

"The ground floor of a ruined house was used as a dressing room; elephant cupolas for cases awaiting dressing and evacuation. A sand-bagged cupola outside formed a very efficient buffet, run by the Y.M.C.A. The dressing room was manned by three M.O's and a large staff of dressers, with two clerks. An officer posted outside classified the cases and passed them along for dressing or clearance."

This officer found his chief difficulty in the fact that

"every man no matter how slightly wounded, is convinced that his wound must be redressed at the A.D.S, and also that he must have a 'ticket' (A.F.W. 3118) to take him further. This conviction was not easy to alter and men pressed on automatically into the dressing room"

The first train cleared both stations at 7.20 a.m., and then for a time this service ceased. Lorries came to the rescue³⁸ but at 10.30 a.m. the train service was resumed, and cleared a large portion of the casualties.

In the first twenty-four hours, ending 6 a.m. on the 21st, 2,200 Australian and about 1,000 British wounded passed through the two

⁸⁷ Wounded prisoners of war were always cleared by the same routes and procedure as other casualties, but usually took turn after those of a like severity. A larger proportion therefore, as here, went on foot, helped by their comrades.

²⁵ While directing the loading of these, Lieut.-Col. Nicholas, together with the D.A.Q.M.G. I Anzac, Lieut.-Col. S. G. Gibbs, was killed by a shell outside the A.D.S. Both were splendid officers—the former had been promoted from D.A.D.M.S. 1st Division.

stations; and, in the next, 800 and 550. The proportion of "stretchers" to "walkers" was roughly I to 3; that of killed to died of wounds, wounded, and gassed, was I to 3.6.

Evacuation, and the work at the M.D.S., went "without a hitch." Approximately 58 per cent. of stretcher cases went by

"A" route, 27 per cent. by "B" route and 15 per cent. by "C." At Remy Siding the casualties from the I Anzac and X Corps arrived so rapidly as to cause some embarrassment, but the difficulty was met by a system of "rosters" whereby, when full, the station receiving was at once relieved by the next for duty.

September 22nd-23rd. On both fronts the clearing of casualties quickly became systematised. By the method of trial and error—on a balance of the prime factors concerned, namely, distance, danger, and the duckboard tracks—the bearers and their officers and N.C.O's worked out the best routes and posts. By the 23rd in the 1st Division arrangements were adequate and personnel sufficient, though the bearers "had a heavy time" and casualties were considerable.

In the 2nd Division (says the diary of the 5th Field Ambulance)

"hot tea or coffee and fancy biscuits provided by Y.M.C.A. and Red Cross, and cigarettes, were provided at the collecting and all relay posts and at the A.D.S. For the first day personnel had bread and tinned meat, and thereafter cooked meat sent up on G.S. waggons to Bellewaarde ridge."

In both Divisions a good supply of food and "medical comforts" was maintained. In the 1st Division this was "one of the most satisfactory features of the operations."³⁹

After this battle the Deputy-Director enquired regarding the system of "direct evacuation." Replies

Battle of Menin Road:
Comments by Officers

Division (Colonel Huxtable) described the method as

"most satisfactory, cases were saved from delay and redressing which must occur when the wounded pass from A.D.S. to M D.S. and then on to the C C.S." Of the "Corps Central Bureau" the A.D M.S.

³⁰ Diary of the 3rd Field Ambulance.

2nd Division wrote that its continuance was "very advisable." If records had been kept at the A.D.S. "congestion or inefficient recording or both would have occurred."

Major Chapman, in charge of bearers in the 2nd Division, appreciated "the lesson of this battle" as follows:—40

Difficulties: (1) Absence of roads—one main road had to be used which reached only to within 3,000 yards of any part of the front.
(2) Lack of organised stations. (3) The great depth of the German shell-fire and its volume. (4) Mustard-gas shelling.

Main Features: (1) Keeping touch with advancing R.A.P's. This was done by ensuring that two squads at least of bearers moved forward with each R.M.O. or group of R.M.O's. (2) Use of returning combatants to carry wounded (vide F.S. Regs.). (3) Failure of trams and light railways. (4) Need for bearer reserves at close call. The bearer divisions of five field ambulances were used in a period of less than eight hours.

Results. In spite of the great success achieved the battle was, from the medical point of view, not without disturbing features. The A.D.M.S., 1st Division wrote to the Deputy-Director:—

"If losses are severe during any further offensive it is likely that there will be a grave shortage of stretcher-bearers. Casualties in this division among bearers total seventy, and the bearers have had very little rest."

Reliefs. On September 23rd the 1st and 2nd Divisions were replaced by the 5th and 4th and during the next two days the medical units of these formations swung into line for the next battle.

In the slow but inexorable advances (in low gear, as it were) of these "attrition" battles—with each stage 1,000-1,500 yards at most and each "battle," with dreadful iteration, providing its temporary crescendo of slaughter (commonly 2,000-3,000 killed or wounded) in the sustained carnage of the "offensive"—the machinery for clearing our own casualties had to move with the same clock-work precision as that designed by us to create them in the enemy. From zero hour of each "battle" the engineers, pioneers, and labour corps, with "fatigues" from the infantry in reserve, worked furiously to prepare traffic routes for the next advance,

⁴⁰ Epitome of report in diary of 5th Field Ambulance.

five or six days hence. Field-guns were rushed up to gun-pits already dug by night in No-Man's Land, and ammunition and all other supplies to forward dumps. With even greater—and a twofold—urge for haste, the medical service must collect the human débris and clear what of it remained sentient from beneath the very wheels of the advancing juggernaut. Then, after some forty-eight hours the new divisions began to move in; and the officer-in-charge of the field ambulance detailed to clear the wastage of the next advance took over posts and stores, the bearer officers and N.C.O's got touch with the new aid-posts, formed new relays, and equipped and prepared them to meet the deluge from the next zero day; providing, meantime, for the stream of casualties from counter-attacks and bombard-ments.

Though charged with poignant memories for those who trod these tracks and manned the posts, who sustained the terrible toils, the moral conflicts, and the personal tragedies of these dreadful battles, by no weaving of words—even were space available—could the mere naming and locating on maps of all the new aid-posts, relays, and carries be made to convey much of interest or instruction to those for whom they must remain names—ct praeterea nihil. In general, the medical scheme arranged for each battle was an extension, at most a variant, of that for the preceeding one; they were built up, as the line advanced, on the general "arrangements" described in the preceeding pages. The dominant motive always was that of advancing the scope of the wheeled-transport.

No attempt therefore is made to present a detailed picture of the medical work in each of the several battles. In maps and sketch maps provided throughout this chapter, the successive advances can be followed: R.M.O's move up and form new aidposts, the bearer captains select from those abandoned the most safe and suitable for new ambulance posts, and, if possible, move up the "collecting post" and most forward treatment centre. The most striking changes in the medical scheme were due to the "side-slipping" of the I Anzac Corps to the left, as the line bestrode the ridge, this being necessary in order to direct the Australian thrust farther north, towards the new main objectives, Broodseinde and Passchendaele.

The battle launched on September 26th continued the advance some three-quarters of a mile. The I Anzac Corps was still the apex of the attack, its right directed along the main ridge, its left against the "Tok1o" ridge. The attack, which was rendered much more difficult by a German thrust against the right on the previous day, began at 5.40 a.m. on the 26th; its methods and course were almost a replica of those of September 20th. With some minor vicissitudes, and not without hard fighting, the final objective was occupied by 7.30 a m.: it placed the front in position for an attack against the main part of the ridge at Broodseinde.

The casualties on the 26th and 27th were 787 killed and 2,770 wounded, of whom 124 died.

Medical Arrangements. I Anzac General Staff orders for the battle were issued on September 21st, and the "medical instructions" of the D.D.M.S. on the same day. The A.D.M S. 5th Division (Colonel W. W. Hearne) would

"take over the right sector of the Corps front utilising such of his field ambulances for this purpose as may be necessary." In similar terms the A.D.M.S. 4th Division (Col. G. W. Barber) was instructed to relieve the 2nd; the A.D's M.S. of the Divisions relieved were to hold 200 bearers in readiness for emergency "as Corps Reserve."

The outgoing units went with their brigades through the great staging camps behind Ypres—scene now of nightly bombings more ferocious and effective than any others experienced by the Australian force in the war⁴¹—to camps around Steenvoorde, Wippenhoek, and Ouderdom.⁴² In these camps the facilities for bathing, recreation, and recuperation in general, were very good.

The 3rd Field Ambulance was relieved on September 23rd by the 14th (Lieutenant-Colonel Clive W. Thompson). The A.D.M.S. 5th Division, Colonel Hearne, an officer of tireless energy who took nothing on trust, after inspecting his own aid-posts in Glencorse Wood explored also the circuit road laid on planks round Bellewaarde Lake. What he saw made him gravely

⁴¹ On three successive nights casualties from Corps troops and formations in the staging camps averaged over 600

⁴² During the brief rests between the battles the medical units had little respite. Field hospitals were formed and the officers and tent divisions kept fully employed in the treatment and weeding out of sick from the relieved battalions. At this time the problem of "B" class men was becoming one of great importance in the A.I.F.

⁴³ On September 23 Lieut Col Thompson was wounded and the unit was commanded for the battle by the senior officer, Major W E L. H. Crowther.

apprehensive for the impending and future battles. He advised the Deputy-Director that the use of wheeled-transport in advance of the Menin Road would be precarious, and the problem of clearing the front lines a very difficult one.

"In addition to the 100 (bearers) promised for the 25th and another 100 for the 26th (zero day), we shall almost certainly require 200 infantry to act as emergency bearers."

Bearers Move In. The bearers of the 14th, who had rejoined their unit at 11 am. on the 22nd after 48 hours duty in the line as "corps reserve,"

"were given [says Major Crowther] the best we could in the way of food and rest," but at 6 p.m. were required to move up to the Ramparts At 3 a.m. on the 23rd they fell in for the route march to man the posts along the 5th Division line of clearance—the loading posts (Crater Post and Hooge Tunnel) and the Tank Gun post; and thence, through Glencorse Wood—"where the gas lay so thick as to nauseate"—to the 55th and 56th Battalion R A.P's in "pill-boxes." Here liaison squads were left, "who, when the line advanced, would move with the R.M.O. to his new R.A.P., and work back his wounded." By noon all bearers were posted and settling down to the normal routine of clearing occasional casualties from the two R.A.P's; until zero hour this was done via two relays and the collecting post, to The Culvert—a little over 3,500 yards.

The bearer divisions of the 8th and 15th Field Ambulances (divisional reserve) reported at the Ramparts for duty at 6 p.m. on the 25th.

On the same day the shelters at The Culvert were heavily shelled, and a new post was formed in the Brigade Headquarters at Hooge Crater. Here

"in some deep, steep, and very wet dugouts wounded were lowered or raised by a hoist, and casualties held till they could be cleared by handcarry or Ford."

For this battle the 4th Division, which took over the left sector of the Corps, moved up from a fortnight's rest in the First Army area. The medical units had been reinforced, though not to strength. On September 24th the 4th Field Ambulance (Lieut.-Colonel H. H. B. Follitt) relieved the 5th (Major A. L. Buchanan). On this front the regimental aid-posts were now on Anzac Spur and cleared via right and left relay posts on

Westhoek ridge to Bellewaarde and thence via "Simon's Post" relay to Birr Cross-Road. The war diary of the 4th Field Ambulance states:—

"All the advanced posts except Westhoek left are concrete pill-boxes—that at 'Nun's Wood' (right relay) being a group of three all fairly roomy. The carry to Birr Cross-Road is 3,000 yards but the going is good. A timber track (the forward circuit) runs from Birr Cross-Road to within 100 yards of Bellewaarde post, but is a one-way track and has no turning points. Horsed-ambulances will be used 1f traffic conditions permit."

Rearward of the collecting posts the posts were unchanged, except that The Culvert was cut out.

The course of medical events in this battle followed closely those of September 20th. The weather throughout was fine, but the shelling of transport routes was far more severe.

5th Division. 14th Field Ambulance. With zero at 5.50 a.m.,

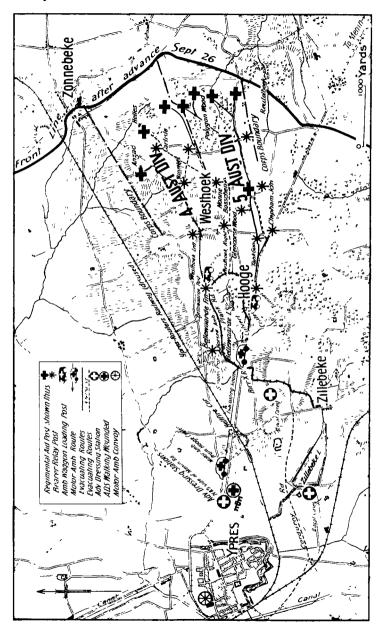
"from about 5 a.m.⁴⁴ the wounded came in a steady stream to the A.D.S. no congestion, prisoners of war carried many cases and were used to unload the ambulance cars. The fact that three Divisions—4th and 5th Australian and 33rd British—were clearing along the Menin Road caused some congestion there, but approximately 2,000 casualties from the 5th were cleared without serious delay or hitch.⁴⁵ In 24 hours 599 stretchers were cleared through the A.D.S."

The Divisional and Corps bearer reserves were brought in, and in addition 190 infantry were employed—approximately 600 in all. Until the 28th only a few Fords could get through to the Hooge Crater, and the carry from R.A.P's to Birr Cross-Road was over 4,000 yards. The preceding enemy counterattack on the flank, which involved very stubborn and difficult fighting, made the tour of duty of this Division a very heavy one.

4th Division. 4th Field Ambulance. Casualties from this Division were much less than in the 5th and were cleared without hitch; but all reserves were used, and as well prisoners of war

 $^{^{\}rm 44}$ Heavy casualties were sustained by the 15th Brigade during the previous day and night through an enemy attack on the X Corps, supporting the right flank.

⁴⁵ A complaint of neglect on the part of the 14th Field Ambulance made by the officer commanding the 20th Battalion was taken up with vigour by the A D.M S After searching enquiry Colonel Hearne reported to the A.A. & Q.M.G. that, on the contrary, the ambulance and attached infantry bearers had cleared for the battalion, whose own "arrangements had broken down"



THE BATTLE OF POLYGON WOOD-THE SCHLME OF CLEARANCE AFTER THE ADVANCE OF 26TH SETTEMBER, 1917

and fatigues of infantry. On September 26th alone these two divisions sustained 2,656 battle casualties, made up as follows:—

	K in A	D of W	Wounded	Gas	Total
4th Division	 154	18	778	9	959
5th Division	412	30	1,250	5	1,697
Totals	 566	48	2,028	14	2,656

Aid-posts were pushed forward to "right," "middle" and "left," R.A.P's at Helles, Garter Point, and Anzac clearing through relay posts at the Tunnels, Westhoek left and Bellewaarde posts in succession. Most casualties passed through a new post. "Garter Point" The track that led through "Nun's Wood" was now abandoned and that on the left via Westhoek became the effective route for clearing casualties from the whole of the I Anzac front. By the 28th horse-drawn ambulance waggons worked systematically, though precariously, on the plank road from Bellewaarde to Birr Cross-Road.

Walking Wounded came through to the A.D.S. very rapidly. The war diary of the 4th Field Ambulance states:—

by 945 pm. the station was glutted with wounded, the majority 5th Division—remainder 4th and 33rd British (X Corps)." While time permitted wounded were re-dressed whenever there was any sign of haemorrhage or of derangement of dressings, "but since 5 a.m. no cases have been re-dressed at A D S except those who obviously needed it. Others sent to C.C.S. after food and hot drinks."

The light railway could then take only 180—the rest went by lorry and bus.

An Accessory A.D.S. On the 27th on the instructions of the Deputy-Director, who feared for the safety of the stations on the Menin Road, the 4th Field Ambulance opened an accessory station in Ypres near the Lorry Park—"a site" (the Ambulance Commander reported) "at least as susceptible."

During the 24 hours ended 5 am. on the 27th 599 stretcher cases were admitted to the A.D S. and 338 on the 28th. In the first 24 hours

⁴⁶ From this post "a message [stating that there was congestion] was received through A D M S. Bearers and stretchers were at once sent up [from the A.D.S.] but no congestion whatever was found, the normal complement of squads having cleared without difficulty." This entry, from the Ambulance diary, illustrates the inefficiency of hason through the official channel—Battalion, Brigade, Division, A.D M S. Ambulance Headquarters, to the forward ambulance posts See p 283 (The position of Garter Point is shown in map on p 224)

1,530 Australian wounded and 1,300 others (British, and prisoners of war) passed through the two stations. The proportion of killed to died of wounds, wounded or gassed was 1 to 3.7.

On October 1st, again in order to bring I Anzac opposite the crucial sector for the next attack, the Corps shifted northwards. The 14th Field Ambulance handed over to units of the 7th and 21st British Divisions (X Corps), and the old route of evacuation was not again used by the I Anzac Corps. By October 2nd, the new sector of I Anzac was held by the 1st and 2nd Australian Divisions, the 4th and 5th having been relieved. Between September 26th and that date the bearers of every Division in the Corps were used. In effect, indeed, the several bearer divisions were treated as a single unit or company.

After the Battle of Polygon Wood, at the instigation of the D.M.S., A.I.F. (Surgeon-General Howse), the Deputy-Director I Anzac Corps (Colonel Manifold) wrote to commanding officers of field ambulances:—

"Casualties amongst the A.A.M.C. are of serious gravity.⁴⁷ ... Please see that all bearer officers fully realise that bearers should not take undue risks ... crowding of men at the advanced posts should be avoided.... Have you any suggestions?"

All officers agreed that some form of cover should be found for bearers at the R.A.P's and relay posts—always badly shelled. Battalion commanders reporting collections of wounded should get in touch direct with bearer captains, giving in their message the time and exact location—often neglected.

"It is often impossible," says one reply, "to concentrate bearers where most wounded will be, because this is impossible to foresee."

But the fact was stressed that casualties to bearers were received in the course of their duty—"which they understand to be that of clearing R.A.P's and relay posts irrespective of conditions, and depending only on the requirements of the wounded. I think (wrote the O.C. 3rd Field Ambulance) the large number is due to the keen desire of the A.A.M.C. bearers . . . not to let their comrades in the infantry suffer through any lack of courage or keenness. . . . While bearers are resolutely determined not to allow wounded men to remain under fire, casualties will occur.

"My bearers are instructed to avoid unnecessary risk, but no urgent call from an R.A.P. has ever been held up."

The next battle, that of Broodseinde, must (as already has

⁴⁷ In this battle the 4th Division field ambulances sustained 15 casualties, the 5th, 47. Among the wounded (it may be mentioned) was Pte. W. A Oldfield who served as a stretcher-bearer in the 15th Fld. Amb.

been suggested) be held to mark an important phase in the

Battle of Broodseinde, Sept. 29-Oct. 6 war: after a most successful stroke made in the morning of October 4th, there passed, at 4 in the afternoon all possibility that the great British offensive in Flanders could attain further important—not to say decisive—success. At that hour there began to fall rain

which thereafter (though no one could then prophesy this with certainty) never allowed the ground to dry sufficiently to carry the massive impedimenta necessary for success in this kind of warfare.

In the medical history, also, of this offensive a new outlook opens up. From the afternoon of October 4th with dramatic suddenness, a note of failure enters—deepening during the month to one of tragedy, at times almost of despair.

Entry of II Anzac. Hitherto in this history we have been concerned with the "medical arrangements" of a single corps, clearing by a single route from one or two divisions: now—and for the only time—two "Anzac" Army Corps, and two corps schemes of clearance and evacuation, come together into the picture.

Plans and objective. The attainment of the map-line objective⁴⁸ set for this battle would advance the front on a width of 14,000 yards to a depth, at its apex, of 2,500 yards, and would plant it athwart the main ridge near Broodseinde—whence, since 1915, the Germans had "looked out on the famous British salient as on a spread-out map." (Australian Official History, Vol. IV, p. 834.)

In this advance the spearpoint of the attack was directed north-east, towards Passchendaele, and was formed by the I and II Anzac Corps. The order of battle from the right was IX and X Corps, I and II Anzac (Second Army); and XVIII and XIV Corps (Fifth Army). Mention has already been made of the relief by I Anzac Divisions (1st and 2nd) on a front slightly more northward than that previously held. On September 29th II Anzac Corps replaced the V British, the 3rd and New Zealand Divisions taking over the line fronting "Abraham Heights" and the Gravenstafel Ridge (abandoned in the first gas attack of the war, in April, 1915). The Roulers railway formed the boundary between I and II Anzac.

Communications. The weakness, as the strength, of the "step by step" advance lay in the shortness of the steps and their destructive

⁴⁸ In the "set-piece" battle the objective was a map line defined on the ground partly by visible landmarks, partly by distance and compass bearings, partly by the known location of enemy trenches etc afforded by aeroplane and balloon observations. R.M.O's were occasionally able to decide beforehand on the site for their aid-post

violence. More and more completely, through the tearing up of the ground by bombardment, the fighting front, men and guns, were cut off from the rear, and communication had to be maintained through a few single roads and light railways, which came to have a significance akin to that of the main arterio-venous supply to a limb. In this offensive a collateral flow, often a matter of most urgent need, could but slowly be created, and almost always was inadequate to maintain an effective circulation.

Roads and Rail. After the Battle of Polygon Wood stupendous efforts were made to force forward the road and rail circuits from Birr Cross-Road to and beyond Westhoek. The Bellewaarde-Hooge plank circuit, 3,200 yards, had been completed in time for "Polygon Wood"; a new one, begun on September 20th, eventually linked this with Westhoek. In preparation for October 4th "Smith's Road" was thrust out from Westhoek toward Zonnebeke, but it exceeded the combined resources of Second Army and I Anzac Corps to plank it beyond Westhoek, and this accordingly remained a "dirt" track till the rains, when it became mud, and almost impassable. 49

It had been found impossible also to complete the duckboard tracks across the country captured on September 26th. The II Anzac area was even worse off in this respect. Across the Zonnebeke swamp itself the II Anzac engineers laid some duckboard tracks but the roads and railways left to this Corps by the V Corps were far behind those of I Anzac.

The problem of clearing the front line had become now a most difficult one. The bearer divisions were much below

Medical Arrangements I Anzac

strength: 50 at the same time their task was far harder. The slide of the Corps front to the left had sheared across its forward lines of supply and of clearance, the route via Hooge had been

lost, and no new one taken over. Already the aid-posts were along Tokio Ridge. The foot tracks from the line converged to Anzac Ridge. The next advance would carry the front five nules from the loading posts on the Menin Road.

It was agreed, however, at a conference, that the notable success achieved in previous battles justified a continuance of the same methods.

The 1st Field Ambulance (Lieut.-Colonel Brennan) was to clear the 1st Division stretcher cases "to where motor-ambulance cars can

[&]quot;The task of laying the duckboard tracks and roads was a terrible one An average "duckboard" was 6 feet long by 18 inches wide and weighed, when wet, some 35-40 lb. The planks for the traffic roads (as on the Zonnebeke and Weisthoek errcuits) were 10 feet by 2½ to 4 inches hy about a foot. The work of those concerned in this "service of maintenance" is commended by the Australian Official Historian in terms reserved by him for service of exceptional merit. Very heavy casualties were sustained in men, animals and vehicles by all the units engaged.

⁶⁰ In the 5th Division on Sept 25 less than 200 bearers were available instead of 324. The 1st Division was even more reduced.

pick them up," and walking wounded of both divisions from Westhoek to C.C.S. The 6th (Lieut.-Colonel A. H. Moseley) was to clear the 2nd Division, and stretchers of both "from motor-loading post to A.D.S."

Motor-transport was re-arranged—A.D.M.S. and Division was to have 16 large cars and 16 Fords A reserve of 16 large cars from the 4th and 5th Divisions was held at the C.M.D.S. The units clearing the line retained their horsed-waggons to clear stretchers "whenever circumstances render evacuation by motor impossible."

After each of the first two battles the A.D's.M.S. concerned had urged that as soon as possible the advanced dressing station be moved up. Hitherto, however, only a precarious service of horsed-waggons and Fords had worked in front of Birr Cross-Road; but now, in anticipation of an advance, the 1st Field Ambulance was instructed

"to see to the preparation and equipping of the ambulance post at Westhoek Ridge, in view of its use as an A.D.S. should circumstances permit."

The Engineers began work here on October 1st, and by October 4th the station was ready. To offset the inordinate length of the clearing circuit the Deputy-Director arranged that a service of broad-gauge trains should evacuate wounded direct to C.C.S. from a siding in Ypres. Arrangements were complete for an "advanced operating centre" at the C.M.D.S. (2nd Field Ambulance), but the idea was not favoured by Second Army and was dropped

The Divisions. The problem faced by the Assistant-Directors was common to every element in the Army—communications and cover. The O.C. 1st Field Ambulance reported:—

"Owing to the formation of the ground and heavy fighting there was no natural cover save in the block-houses, and all that had survived were in great demand for Brigade, Battalion and Company headquarters, signal and A.A M.C. posts"

In particular, the siting of R.A P's—the crux of the problem of clearing the front—was a most difficult matter.⁵¹

1st Division: 1st Field Ambulance. Infantry fatigues from

⁵¹ In the maps the position only of those which were retained as ambulance posts is shown. In each battle they must be conceived as scattered, from soon after zero, over the captured area or just behind it, from one to three posts serving each brigade in line

the battalion in reserve were used in making the preparations, so as to rest the ambulance bearers for the actual battle. In the four days available great efforts were made to push forward the focal point in the scheme for clearing the front.

To this end "Westhoek relay" was developed as a "forward A.D.S." Thirteen "splinter-proof cupolas" were dug in by the Engineers behind the ridge, water tanks installed, and the staff at Bellewaarde transferred thither. Large reserves of stretchers, blankets, Thomas splints, and dressings were stored along the route from the Menin Road to the R A P's, rations and medical comforts were carried up to Westhoek

Dispositions For this battle bearer officers were stationed at "Helles" (relays) and "Garter Point" (controlling the R.A.P's). The commanding officer himself was at Westhoek, the transport officer at Bellewaarde, and an officer-in-charge at the A.D.S. by the Menin Road. The bearer divisions of all three field ambulances were available.

2nd Division: 6th Field Ambulance. During its tour of the front, October 2nd-11th, the 6th Field Ambulance faced three distinct problems in succession:—

(1) On account of the side-slip to the left, new ambulance posts had to be found, and a new line of clearance formed for the battle of October 4th. (2) New routes were opened up and new relay posts formed to meet developments in the military situation. (3) To straighten out the division's line of evacuation, after the advance northwards, a new scheme was created by which casualties were cleared down the left flank along the Ypres-Zonnebeke road, instead of by the right flank.

For October 4th the following arrangements were made:-

The 6th Field Ambulance took over on October 1st. The crowded condition of the Ypres-Zonnebeke road and lack of cover on the left flank and centre decided the commanding officer (Colonel Moseley) to clear from Anzac Ridge down the right to Westhoek Ridge. The only line of strong-posts affording suitable shelter for this lay along the boundary line between the two divisions and was claimed by both. The two medical units concerned agreed to work together "by a process of mutual give and take." The three main posts—Bellewaarde loading post, Westhoek collecting post, and the "Tunnels" relay (three concrete-covered steel cupolas) were held in common. At Carlisle's Post and Ideal House, R.A.P. and relay posts were formed. The aid- and relay-posts and routes from the left and right brigade fronts met at Westhoek, whence casualties were cleared by light railway, horsed-waggons and hand carry.

Before the action 750 blankets, 300 stretchers, and many Thomas and other splints and dressings were sent up to the forward posts. Three large dumps had to be placed in the open, and these suffered much from shell-fire.

Colonel Begg's scheme reflected the methods of Second Army and Messines. It was based on a "corps main dressing station" and "walking wounded collecting station," each staffed by several field ambulances. All casualties were to be admitted there, passed through the A. and D. Books, and given A.T.S. A "Corps combined convoy" was formed to clear both A.D.S. and M.D.S.

3rd Division.⁵² The intimate aura of "The Salient" surrounds the names of the ambulance posts taken over by the New Zealand and 3rd Australian Divisions; the routes of clearance were those used by the Canadians in the Second Battle of Ypres in April and May, 1915. The main dressing and walking wounded collecting stations (11th Australian and 4th New Zealand Field Ambulances) were at "Red Farm" and the Vlamertinghe Mill on the Ypres-Poperinghe road. The 10th Field Ambulance took over the "gas-treatment centre" at Brandhoek and a "sick distributing centre"

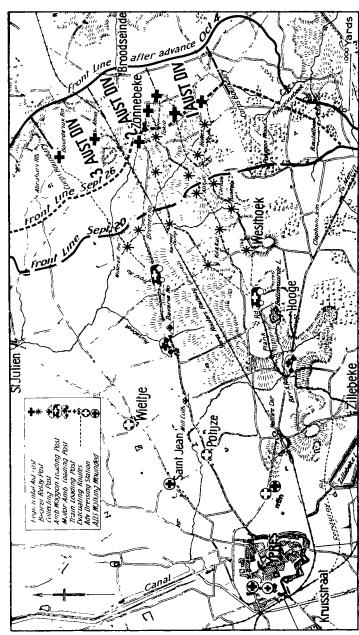
In the cellars of the "Prison House" in Ypres, the 9th Field Ambulance (Lieut-Colonel F. A. Maguire) formed head-quarters and accessory A.D.S., and an advanced dressing station at Potijze (the "White Château") a mile from Ypres. The "walking wounded collecting post" at "Mill Cott" cleared by lorries and light railway to Vlamertinghe. Here the Y.M.C.A. ran a "buffet." Heavy motors loaded at Bavaria House clearing down the Zonnebeke Road; Fords and horsed-waggons worked from "Frost House."

Bearers Move In. On the night of October 3rd-4th the bearers of the 10th and 11th Field Ambulances manned the regimental and relay posts relieving those of the 9th who were then held as reserve at the Prison House.

The orders of the Deputy-Director required that R.M.O's should "notify immediately the nearest Field Ambulance post of any change in the position of the R A.P." 53

⁵² A very full account of medical work during October on the II Anzac front is given in the New Zealand Medical Service in the Great War, 1914-1918, by Lieut.-Col A D Carbery

s From diary of A D M S 1st Division



THF BAITLE OF BROODSEINDE—THE SCHEME OF CLEARANCE AFTER THE ADVANCE OF 4TH OCTOBER, 1917 Subsequent extensions of the plank road are not shown.

Broodseinde (October 4th). The Battle The actual battle of Broodseinde was fought mainly in the hours before the rain fell. The effect of the impasse due to the mud was not felt in it, and its success was even more dramatic than that of the two preceding battles. From zero hour, at 6 a.m. the advance on both Anzac fronts was almost exactly to time. The Australian attack met a German counter-attack timed for the same hour, and completely shattered it, capturing or killing both the troops and many of their headquarters. The line reached in the three divisions is shown in the map.

The casualties sustained by the Australian Divisions in the two Corps on October 4th and 5th were:—I Anzac: 1st Division, killed 518, wounded, 1,381. 2nd Division, killed 403, wounded 1,332. Ratio of killed to wounded and died of wounds, 1 to 3.0. II Anzac: 3rd Division, killed 400, wounded 1,459. Ratio of killed to wounded and died of wounds, 1 to 3.6

Broodscinde Clearing the Battlefield. From this great battle the wounded were collected, cleared and evacuated with a celerity which in the circumstances is remarkable. For, unlike the battle itself, which by 10 a.m. had been well won, in neither Corps did "medical arrangements" work out "according to plan." The rain caught the retiring stream of wounded intermingled on the narrow plank roads with artillery and other material of attrition moving up to prepare for an intended advance to victory five days hence. On the I Anzac front the waggon loading posts were forced back to the Menin Road, on that of II Anzac to Bavaria House.

The general course of events is described by the Deputy-Director (Colonel Manifold):—54

Oct. 4th. The attack opened at 6 a.m.: at 9 a.m. walking wounded came in fairly large numbers and the service of lorries (2 every 5 minutes) had to be augmented. At 10 a.m. stretcher cases began to arrive. A broad-gauge train was despatched at 10.45 a.m. with 300 cases, 24 being stretchers. A.D.M.S. 1st Division short of bearers—12th Field Ambulance (4th Division) bearers in (Corps) reserve at M.D.S. sent up in returning ambulance waggons. By mid-day both A.D's.M.S. had asked for two bearer divisions additional to their own three. This extra demand (which used up all reliefs) was occasioned by the inability to use horsed-waggons to effect on the slippery planked road, a one-way circuit, with passing points, but made useless by artillery limbers making short (two-way) journeys. With this road out of use the bearer carry was 8,000 yards, but when it was used to Westhoek the carry was reduced by (some) 3,000 yards. Infantry put at my disposal as emergency were sent up at 6 a.m. on the 5th and German prisoners were freely used.

Before 2 p.m. (on 4th) 500 stretcher cases had passed through the ADS and about 1,500 walking wounded. Of the latter some 600 went

⁵⁴ The account has here been epitomised

by broad-gauge train from Ypres together with about 40 stretcher cases, and another 260 by light railway, of whom 200 with some stretcher cases were sent from Bellewaarde straight to C.C.S. This saved ambulance cars considerably, and it was the only occasion [in these battles] on which the light railways have been of any real service in evacuation

1st Division. 1st Field Ambulance. The bombardment preparatory to the German counter-attack fell on this division as it lay out on its jumping-off tapes, and, though the counter-attack was immediately afterwards shattered, heavy casualties had been suffered on the tapes. These were carried by the regimental bearers to the aid-posts, and very quickly cleared by prisoners, who worked under ambulance bearers in parties of ten to twenty. During the morning most of the R.M.O's moved up and the bearer carry to Westhoek lengthened accordingly.

"Wounded began to arrive at Westhoek at 7 15 a.m 100 prisoners of war carrying to Bellewaarde ridge from the front Our men all working right forward" (chiefly in the captured area). 55

Enemy shell-fire was fierce and at 4 p.m it began to ram. From this moment the task of the bearers was one of constant and most dreadful toil. At 8 p.m. the officer in control at Helles reported.—

"Carry from right and left R.A.P's impossible until dawn. At 7 p.m. about 40 stretcher cases remain beyond the (Zonnebeke) swamp at R A P., all under cover"

2nd Dwision 6th Field Ambulance. This front was cleared with expedition, but only by using very large numbers of bearers.

"Before the battle," Colonel Moseley reported, "the infantry bearers were replaced by the Ambulance reserves, and on the 4th the fine weather prevailing [till the atternoon] made evacuation easy and rapid." Clearing in common, though it caused some confusion in checking stores, saved much labour and ensured an ample supply—"an important matter since the stream of stretcher cases was very rapid, owing to the great use made of German prisoners."

The report continued —

"The following figures show that the field of battle was entirely cleared within 10 hours of the beginning of the attack, stretcher cases evacuated to C.C.S. from A.D.S.—8 a.m. to 12 noon, 216; noon to 4 p.m., 316, 4 p.m. to 9 p.m., 96—Total 628"

⁶⁵ From the war diary of ADMS 1st Aust Division. At 10 am the APM prohibited the use of the German prisoners for stretcher bearing after they had got as far back as Bellewaulde.

The officer-in-charge of the bearers (Major E. L. Hutchinson) reported of his "hand carry" that

On the whole everything went smoothly, though the work of the stretcher-bearers was very heavy, chiefly through the fact that for some days there were no duckboards forward.

During this night and on the following day horsed-waggons for stretcher cases and lorries for walking wounded plied precariously on the plank circuits. The advancing (by the Canadians) of the medium light railhead to Anzac Ridge on October 5th helped to relieve the situation, 56 but on the 7th stretcher cases were being hand-carried from the R.A.P's right through to Birr Cross-Road, a matter of five miles! And in the 1st Division only eleven ambulance squads were available to the A.D.M S for reliefs, though the bearers of both units had been augmented by large infantry fatigues.

The following from a personal diary⁵⁷ describes the work at a combined relay:—

"C M.D.S October 2nd. The Gothas over again to-night—it will be quite a pleasure to be up the line.

"Oct. 3rd. Tunnel Relay Post, Westhoek. 3rd Field Ambulance bearers (I officer, 2 N.C.O's, 52 privates) relieve the 1st for a spell, but we may be in for the 'stunt.' By lorries to A D.S. then walk to Westhoek and on to 'the Tunnel'—3 connected German cupolas—leaving squads at each. Through shell-holed country to 'left R.A P.' near Anzac, and another ½ mile to 'Helles,' 2nd Battalion R.A P. Left squads, and returned to the Tunnels, pretty knocked up. Bearers to-day have carried both 2nd and 1st Division casualties back to Westhoek. . . . We are just N. of our old September 20 stunt, and can see Polygon Wood.

"Oct. 4th. Prisoners streaming in and casualties pouring through, our 8 squads stationed here are out all the time. I am doing a few dressings and keeping hot coffee and drinks going. All in great heart. Later. It has been a cruel day for the bearers; the enemy pounded our supports and the guns in front of us. At Helles Major Hunt killed and the M.O's cut off by shell-fire all day Prisoners carried here from "Ideal House" for 2 or 3 carries; then as we were congested I pushed them off (to the rear) in twos The bearers worked without stopping—I gave them rum and hot drinks and their rations. In the afternoon it rained and the tracks were frightful—there were continual slips and falling into holes When the rain stopped it was sloppy and sticky and the men absolutely done up, but they kept cheery and worked till 8 when I made them rest till midnight as few cases were coming down to us from the front and the 4th Division (bearers) eased us

 $^{^{69}\,\}mathrm{Like}$ the D D M S the 1st Field Ambulance diary states that this was "the only occasion during the offensive when the light railways were of real use to the walking wounded"

⁶⁷ Of Capt L May, 3rd Field Ambulance

"Oct. 5th. Going again—dugout58 crowded, almost impossible to move. The 3rd Brigade moved up on a daylight relief (of the 1st and 2nd Brigades). Battalions working in our valley digging new gunposts and building railways. Cases poured in pretty fast for a while—wounded who had been collected and housed in pill-boxes for the night. Rain made the mud less sticky—it was cruel to see the bearers wilted up and almost dropping, with staring eyes and listless faces but ready when another case came in to get it away. 2 p.m. 15th Field Ambulance bearers (relief) came along. Went to Ideal Post and to Helles, and got the men down and sent them along to Westhoek. I appreciated the awful time the bearers had on their carries, as I slipped and slopped along without any weight to bother me. Met my men from Nun's Wood Post and went along the Decauville track and on to the Corduroy Road with its dead horses on the sides and overturned limbers; with guns and waggons and howitzers and mules in hundreds, and carrying parties, squeezing us off the track into the muddy shell holes. At Birr Cross-Road on familiar ground, and on to A.D.S., the road thick with lorries and ambulances, horsed and motor. At C.M D.S. hot food, rum issue, cigarettes and an extra blanket.

"The bearers compare the carry this time as being worse than Flers, owing to the mud and the number of cases—Flers mud was deeper and worse, but they had only 4 carries a day there; and to Bullecourt, when it was fine weather but the shells were thick and the

carries long."

The relief was for twenty-four hours only; on the night of October 6th these bearers were again in the line.

Waggon Posts. The advance greatly relieved the Menin Road. On October 8th Westhoek was heavily shelled and the "A.D.S." was transferred pro tem. to the Tunnels waggon post. This sector, however, was not again involved in heavy fighting, and, though a large flow of sick, gassed, and casual wounded passed along the Menin Road by Hooge, the major stream from the I Anzac Corps was again directed leftwards, henceforth to be evacuated down the Ypres-Zonnebeke route. To this route, between October 6th and 8th, the 6th Field Ambulance with great labour transferred its posts, routes and relays.

The attack of II Anzac advanced the front across country which the rain turned into a dreadful morass. The R.A.P's moved up some mile and a half to the vicinity of "Bordeaux" and "Alma," the two brigades clearing respectively north and south of "Hill 40" to Bremen House relay. By 10 a.m., according to the diary of the 9th Field Ambulance,

"all the bearers (of the 3rd Division) are employed in the forward area and all reserve used up."

⁸⁸ All protected posts were termed "dugouts"

"Fords" could no longer clear from Frost House; after the rain even horsed-waggons cleared Bavaria only by using four horses to each waggon. At 2 p.m. Major R.J. Taylor (in charge of bearers) was asking for yet more bearers:—

"The carrying is extremely heavy and very slow, as there are no made paths, and the country is a continuous chain of shell-holes and the ground very muddy."

At 4 p.m. it was "raining heavily and very cold; ground extremely heavy and sticky with mud." At 9 p.m. bearers were

"dead beat. Still 12 cases to clear from R.A.P's. Things practically at a standstill."

An infantry fatigue appeared at 10 p.m. and most bearers were relieved for the night, but next morning they had to be rushed up to deal with a "congestion" at the aid-posts. At 5 p.m. on the 5th Major Taylor reported "all clear at R.A.P's."

Clearance to A.D.S. Fords and horsed-waggons were used to convey stretcher cases to the A.D.S. at the Prison House, Ypres, from the most advanced point that could be reached by road—Frost House or Bremen—the heavy cars of the division in the line starting every five minutes were used to evacuate the A.D.S. via the Prison House to the M.D.S. "This system" (Colonel Begg observed) "was quite effective and casualties were cleared in a minimum time." Walking wounded were evacuated by light railway and lorries.

Advanced Dressing Stations. In the II Anzac Corps the "advanced" dressing stations were no more than treatment and transport relays to the "main" dressing station at Red Cottage.

Between 6 a.m. and noon of October 4th 314 stretcher cases were cleared through the Prison House and Potijze A.D.S's. It is recorded that "Practically all wounded were from high explosive—no gassed, very few bullet and shrapnel wounds."

C.M.D.S. "Red Farm." Though his orders prescribed that all casualties should be cleared through the C.M.D.S. the Deputy-Director paid homage to the new ideas by instructing that

"As few dressings will be done as is compatible with efficient surgical treatment. At A.D.S. only dressings of an urgent nature . . . all cases

ot fractured femur to be adjusted with Thomas splint. Tourniquets must be removed—except in most exceptional cases—and never sent to C.C.S. At M D S. cases will not again be dressed except for definite reason. Officers should remember that all cases are redressed at the C C.S."

In his interpretation of this order the A D.M.S., 3rd Div., "played for safety". 6 officers and 140 other ranks were employed in the M.D.S. The diary of the 9th Field Ambulance says:—59

In the admitting huts (3 medical officers and 10 O/r) records were taken—hot drinks and warm clothing provided, A.T.S. given and cases sorted out: "E"—Evacuation, "D" Dressing, "R" Resuscitation. In the dressing room 6 tables worked, 2 orderlies at each table, one of which was reserved for "aseptic work"; 5 medical officers were always in attendance, with one for "urgent cases not unloaded." Returns were made up in a special "recording room."

Evacuation. Battle casualties were evacuated to the Nine Elms group—chiefly to No. 3 A.C.C.S.

This remarkable battle marks the climax of a well defined stage in the evolution of the British Medical Service, as in the

Battle of Broodseinde : comment course of the war itself. Until the final advance to victory it was the last which involved the problem of moving up the medical posts. It illustrates at their best the methods evolved

during attrition warfare. The technique of "evacuation"—implying, as its prime purpose, the prompt removal of wounded from the battlefield—was never in the A I.F. more effectively applied. In spite of the immense extension of the bearer circuit, the rate of flow to the C.C.S. was as rapid as in any previous or subsequent engagement in which the A.I.F. was involved. And the prime factor in this achievement was the efficient work of the bearer divisions and their prompt exploitation of success. It is convenient here, as the scene of their worst trial, to discharge a bounden duty and service by recording the fine work of the drivers, both horse and motor.

The conduct of medical affairs by the 1st and 2nd Divisions stands out in the history of the service for team work and enterprise.⁶⁰ The 3rd Division was confronted by peculiar diffi-

¹³ The account is here epitomised.

⁶⁰ The field messages that passed between the Commanding Officer of the 1st Field Ambulance and his junior officers in charge of posts and stations were assembled as this unit's war diary. They illustrate medical co-operation in battle at its best. The 6th Field Ambulance compiled a special report for the Deputy-Director

culties largely due to the fact that II Anzac, with shortened time for preparation, could not extend its duckboard tracks over a large part of the morass. Reports from medical and combatant officers of the division also strongly complained that there was undue allocation of trained ambulance bearers for the corps dressing station. Something approaching a breakdown in evacuation occurred, for which, however, the medical service of the division seems to have been in no way responsible.

From October 5th onwards the weather was bitter and the problem of "wound shock" became a major factor in the medical situation. On the 7th, 150 "walking" cases of trench foot were cleared through the 1st Field Ambulance.

at See Australian Official History, Vol. IV, p. 882. In a "review" of this battle for the ADMS. Colonel Maguire complained that "the three ambulances were 60 under strength to start with, and some of the men unfit for more than one carry" Even the full quota of bearers was (he urged) "far too small for a division—they are quite unable to cope with any (large) number of casualties... and for efficient reliefs a reserve of at least 300 infantry bearers should be available"