CHAPTER X

THE END OF ATTRITION WARFARE

WITH the next series of battles we enter upon a sombre and terrible phase of this offensive. For the Allies the sands of time ran out fast, the glass must soon be turned for the Central Powers, whose corps after corps, relieved (as was soon to be known) from the Russian front, were even then beginning to be sent west to force victory in 1918. The Battles of Poelcappelle (October 9th) and First Passchendaele (October 12th) were pushed through to their bitter failure in a desperate effort to achieve a break-through in the north before the winter.[1] As the last stroke in the warfare of attrition they and their sequels closed the penultimate phase of the war on the Western Front. Cambrai, battle of surprises, herald of the dawn and of open warfare, was ready for launching—held up (as Haig himself has revealed) only through fear that the Germans might strike at the French if the pressure of the British offensive at Ypres was relaxed for a moment.[2]

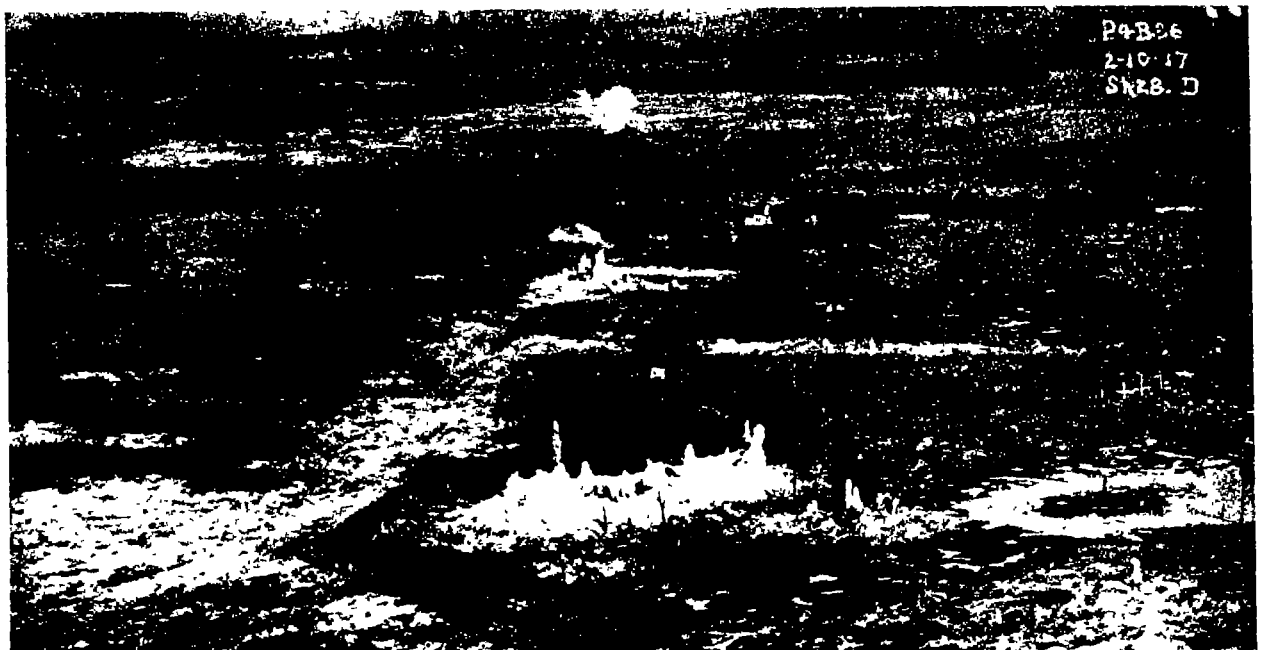
The Achilles heel of the "step by step" advance was revealed in the failure along the whole British front to push forward the road and rail circuits. The rains laid bare the weak spot; accurate shelling of all available traffic routes effectively hamstrung the attacking force.

Poelcappelle, October 9

Both Second and Fifth British Armies moved against a deep objective. In the II Anzac Corps the 3rd and N.Z. Divisions were replaced on October 6th by two British ones, the 49th and 66th. In I Anzac Corps the 1st and 2nd remained in the line and took some part in the battle. On the level ground Fifth Army made progress, but Second Army's attack

[1] For a concise and exact statement of the conditions which induced Haig to continue the offensive, *see Sir Douglas Haig's Despatches, p 127.*

[2] ". . . The probability of the French Army breaking up in 1917 compelled me to go on attacking. It was impossible to change sooner from the Ypres front to Cambrai without Pétain's coming to press me not to leave the Germans alone for a week on account of the awful state of the French troops You, even, did not know the facts as Pétain told them to me in confidence" (Letter to Brigadier-General Charteris quoted in *The Fighting Forces, Vol XIII, No 1, April 1936, p. 33.*)



29. ZONNEBEKE CHURCH, OCTOBER 1917

The photograph looks over the Broodseinde Ridge into the country beyond. Passchendaele lies just below the left-hand top corner, and the railway cutting through Broodseinde Ridge can be seen near the right-hand top corner. A shell is bursting on the ridge half-way between the two. The woods at the top of the picture are in the open country beyond.

British Air Force Photograph
Aust. War Memorial Collection No. A3321

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30. THE PLANK ROADS AND DUMP AT BIRR CROSS-ROAD, OCTOBER, 1917

The road in the foreground is a one-way loading track at the dump. On the left in the distance can be seen a train on the light railway to Bellewaarde Ridge

Aust War Memorial Official Photo No E4613

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on Passchendaele was a disastrous failure; the circumstances of the assault by the 66th Division are among the most dreadful in the whole history of the war. The 2nd Australian Division attacked with one brigade which during the whole of the previous 24 hours had been employed, under dreadful conditions, on road and rail repair. Its attack, like that of the 66th, failed, farther south, from a minor feint by the 1st Division, of 85 who went out only 14 returned unwounded.

Medical arrangements

On both Anzac fronts the approach to the line lay now for the most part across a trackless waste of shell-torn soil, or in the low ground of the Ravebeek through deep swamp and slush. After the advance, until duckboard tracks could be pushed out, troops, walking wounded, and stretcher-bearers must thread their way along the mounds of loose soil or mud between shell-holes "as closely placed as the cells in a honeycomb."[3]

2nd Division. Though "medical arrangements" were unchanged, in effect each division now cleared its own casualties. The 2nd Division's scheme was based chiefly on the "emergency A.D.S." near the Ramparts, which evacuated by both broad-gauge train and M.A.C.

The front. From the report of Colonel Moseley (6th Field Ambulance) :—

On October 6th . . . plans were made to abandon the right flank and evacuate entirely down the left and to post waggons as far up the Ypres-Zonnebeke road as possible. Stores were sent by road and across country to the loading post at Frost House and on the 8th we were able to cut out the right line and clear to the Ypres-Zonnebeke road forming new relays near Zonnebeke (at the "Brick-kiln" and "Cordial factory"). By the night of October 8-9 all the new posts were manned.

From the personal diary of Colonel Sutton (A.D.M.S. 2nd Australian Division) :—

6/10/17 Very cold, heavy rain. We are again to side-step to the left. . . Asked D.D.M.S. for 250 more bearers. *7th.* Cold and foggy—rain, rain, rain. Up at 4 a.m. (new time)[4] picked up Moseley to reconnoitre; road very bad from half mile in front of Potijze, thousands of men working at it. Daimlers can ply to Potijze and Fords to Bavaria House. *8th.* A.D.M.S. 66th British Division tried to warn me off Zonnebeke road, but I told him straight I was going on with it as it was our only means. The weather is damnable.

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[3] The bearers of the 2/3rd East Lancs Field Ambulance relieving the 9th Field Ambulance on the 6th were 8 hours late at the posts Moving up for the battle on the 9th, the attacking troops of the 66th Division took 12 hours to traverse 5 miles, and barely arrived on the tapes. exhausted by zero hour

[4] On Oct. 7 the clocks were retarded an hour, reverting to true (or "winter") time "Summer" time had begun on March 24.

During the battle of October 9th only horsed-waggons could work to Frost House and the bearer carry was about three miles. Some duckboard tracks had been pushed out, but regimental bearers and many of those from the ambulances had to carry across the unbridged mudfield.

"From the 8th to the 11th," Major Hutchinson records, "the work was so heavy that for a large part of the time 6 men had to carry one stretcher—8 and even 12 men were used in parts. Under these conditions the stretcher-bearers rapidly became exhausted, and absolutely so after 24 hours' work. Usually they were relieved after 24 hours, but owing to the universal shortage some 36 and even 48 hour shifts were done. About 200 bearers (ambulance and infantry) were continually at work. The infantry suffered more, if possible, than the ambulance men as their shoulders were not hardened to the stretcher handles. The only serious block, however, was at an R.A.P. in the front line on the railway near Zonnebeke where the cases were held up for 12 hours by shell-fire on the railway line [the only way out]. The continued wet and cold made it necessary to use 3, 4, and even 5 blankets per patient and we had just enough to see us through.[5] Ground sheets, sent up in large numbers on the 8-9th to cover the wounded, were of great service Blankets, stretchers, splints, dressings were fed up to the advanced posts by returning squads from relay to relay but when the bearers were exhausted it was difficult to keep this stream constant right up to the line."

Waggons. The Ypres-Menin road was very much congested and on the Zonnebeke Road the waggons could only very slowly get up to the loading posts at Potijze and Frost House and, at times, took three hours to return.

A.D.S. These delays were reflected at the A.D.S., Ypres, where stretcher cases did not begin to arrive till 1 p.m. By 4 p.m. 115 stretchers and 350 others had passed through. Much time was saved here by having all patients examined and classified on the road; many were sent direct to C.C.S., by M.A.C. or ambulance train.

In a report by the Officer Commanding the 6th Field Ambulance, the comment is made that

"the stretcher-bearers of a Division are insufficient to cope with the casualties of a modern battle, especially in wet weather, and with a long carry."

In any retirement, however orderly and devoted the efforts of the bearers, many severely wounded men must die. In this

[5] The wastage of medical stores—stretchers, blankets, food and so forth—in these operations was enormous, and was a constant source of anxiety to those concerned. At this time even for the Allies the problem of *material* including food-stuffs (especially fats) was becoming serious, and the co-operation of field units in the work of salvage was strongly pressed by rewards and punishments

action the 2nd Division had 334 "killed in action" in a battle casualty list of 961—a proportion of 1 "killed in action" to 1·9 "wounded," as compared with 1 to 4·2, the average in the A.I.F. over the war.

In the *1st Division* attempt was made by bearers under Red Cross flag to search for the wounded from this division who were left in front of the line, but those who went out were at once shot down.[6]

October 10th-15th. With this check, which on the 12th was turned to check-mate, the medical work in these battles, like the offensive itself, takes the character of anti-climax. "Medical arrangements" changed but little; the problem that confronted administrative and commanding officers alike became more and more how to maintain in the forward zone a strength of bearer squads and supply of medical stores sufficient to offset the increasing needs of wounded men and the retarded pace of the transport units and their wastage through mud, enemy action, exhaustion, and break-down. On a few occasions, indeed, the work of rescue in some part failed; that at no time did it do so completely was achieved only by the use of infantry fatigues for stretcher-bearing to an extent not approached on any other occasion in the experience of the A.I.F. or perhaps in the history of warfare.

On October 14th the enemy began a series of heavy bombardments with gas shell, chiefly "yellow cross." The casualties from gassing in the Australian Divisions from October 14th to November 10th numbered 30 per cent. of the total for that period, and the wide diffusion of "mustard" gas materially increased the difficulty of the medical problem.

First Battle of Passchendaele. October 12

The success of the Fifth Army on October 9th, and intense desire of Field-Marshal Haig and the Second Army staff to reap some fruit from the great British victories that culminated at Broodseinde, led them to repeat on the 12th the thrust toward Passchendaele. In this battle I and II Anzac Corps (Second Army) and XVIII and XIV Corps (Fifth Army) were engaged. On October 10th and 11th the 5th and 4th Divisions

[6] Instances of this occurred at this time on both sides commonly through suspicion of treachery, or as the result of the spreading of atrocity stories as "propaganda"—the malignant influence of which was constantly felt by the medical services during the war. There is no record of any member of the *1st Australian Division* having been made a prisoner of war during this week, although some 50 were "missing" at Celtic Wood.

relieved the 1st and 2nd, and the 3rd and N.Z. Divisions relieved the 66th and 49th British. On the II Anzac front the conditions were now appalling. The 66th Division front was found by the 3rd only after perilous scouting across the mudfield.[7]

The Battle. With a much deeper objective, and under conditions even worse than on October 9th, the 3rd and New Zealand Divisions of II Anzac with the 4th Divison of I Anzac on their right set out to capture the Passchendaele ridge, advancing against a line of concrete machine-gun posts. The New Zealand Division stuck fast in the uncut wire on Bellevue Spur, losing nearly 3,000 in killed, wounded, and missing. The 3rd reached part and the 4th the whole of its first objective, but each division, finding its left flank in the air, fell back to its starting point. In these three formations during the course of ten hours, 5.35 a.m. to 3.30 p.m., some 6,000 men had been killed and wounded, or were bogged. Of the latter some were rescued by comrades and regimental bearers, many were shot by snipers, but at nightfall not a few still lay out in the almost impassable mud of the Ravebeek. The 3rd Division's casualties for October 12th and 13th were 651 killed and 1,772 wounded, of whom 40 died after rescue (the ratio of killed to wounded and died of wounds being 1 to 2·7). The 4th Division suffered much less heavily, losing 317 killed and 677 wounded of whom 32 died (ratio of killed to wounded and died of wounds 1 to 2·1).

Medical Arrangements. I Anzac (Ypres-Menin Road). The A.D.M.S. 5th Division took charge of all Australian casualties passing down the Menin Road via Westhoek, and ran the walking wounded A.D.S. The work of this division does not call for particular reference save to record one heavy loss: on October 17th, when visiting his forward posts, the A.D.M.S. Colonel Hearne, a gentle and lion-hearted man, was killed by a fragment of H. E. shell.

I and II Anzac (Ypres-Zonnebeke Road). The 12th Field Ambulance (Lieut.-Colonel C. E. Wassell) took over the Menin Road A.D.S. and the 13th Field Ambulance (Lieut.-Colonel J. B. St. Vincent Welch) that in the Ramparts and also the Railway Siding, and cleared the left (4th Division's) sector of the I Anzac front. The 3rd Division was again cleared by the 9th Field Ambulance. With the approval of the Deputy-Directors the A.D's.M.S. pooled their wheeled-transport for evacuation down the Zonnebeke Road. On each front the aid-posts, scattered at first in the pill-boxes like islands in a sea of mud, had for the most part converged to the safer spots.

[7] Posts were found full of dead and dying men cut off from any contact with the rear

Ambulance bearers pushed up the forward relay and collecting posts; the Cordial Factory in Zonnebeke, the Brick-kiln, Railway Dump, St. Joseph's—later destroyed by shell-fire, with heavy casualties—are names familiar to bearers who served in these battles. The bearer carry varied from 3,000 to over 6,000 yards, with relays 500-600 yards apart. Loading posts had moved up—horsed-waggons as far as Bremen House, motors and lorries to Frost House.

4th Division. To assist the ambulance bearers, 150 infantrymen were attached and were sent to the forward posts; but even with these the whole strength of three bearer divisions could not cope with the task.[8] By reason of features of the landscape regimental bearers from the 3rd Division converged to the safe and commodious 4th Division post at the Cordial Factory, and at 6.30 p.m. Captain D. M. Steele (in charge) asked for more infantry

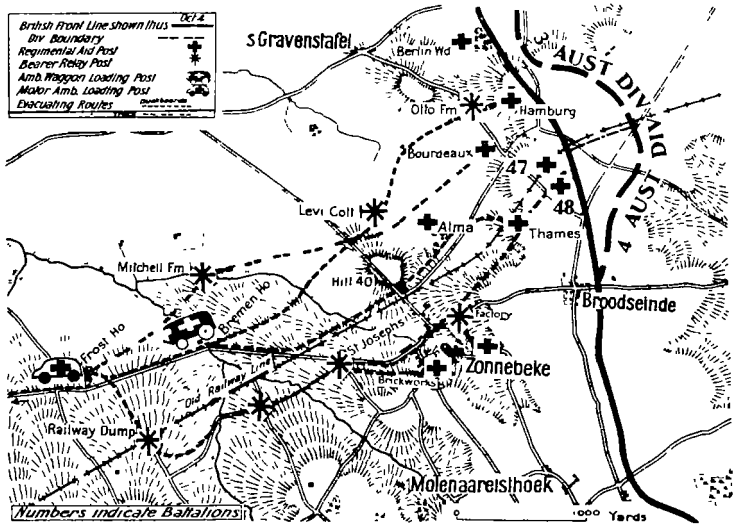
"to replace or probably to supplement the men I have at present. We could manage if we were only serving our own Division but the present is an enormous contract"

One hundred men were sent to the forward posts in the vain hope of clearing the aid-posts by night. The situation at these is well described by the R.M.O. 47th Battalion (Captain J. T. Jones):—

"On October 11th went over the ground, studied maps and collected equipment. The battlefield had become much worse since October 1st; it was difficult now to move over the area unencumbered—to bring up supplies in the enormous quantities required for an offensive was a task so huge that words fail to describe it adequately. Shelter of any sort was scarce, the only post available for the M.O. was a small chamber in Battalion headquarters pill-box. The attack started at daybreak and at once a heavy barrage fell on all the forward area. Almost all the men attached to headquarters were killed or wounded—24 around the pill-box. 'Walkers' were sent back and messages sent to the A.D.S. (*sic*) at the Cordial factory Zonnebeke, for bearers. None arrived—of three runners sent, two were killed and one wounded. The battle continued fiercely the whole day—wounded were collected in shell-holes and trenches. Early in the afternoon the medical orderly and A.M.C. corporal were wounded, and the M.O. left without assistance Soon afterwards the Division was outflanked with heavy casualties, and the

[8] Colonel Barber complained of the physical standard of the medical reinforcements at this time. After the Battle of Broodseinde the D D.M S I Anzac arranged with the Chief of Staff (General White) that "Divisions in the line should supply all extra bearers needed, so that Divisions in reserve should not be called upon" The effect of this was to substitute infantry fatigues for the Corps bearer reserve.

O C's 47th and 48th Battalions wounded. As darkness fell the R M O 48th Battalion, Captain A. J. Collins, arrived back with some squads of ambulance bearers. The most urgent cases were sent away at once, the rest later. Next morning the ground around the R.A.P. was littered (with wounded who had died) who had to be piled in heaps to clear the trenches; and along the track from the R.A.P. to Zonnebeke a distance of over a mile, the dead lay every few yards. From the medical point of view this operation was one of the most depressing that could be imagined."



Lines of Evacuation, 3rd and 4th Aust Divisions, 12th-14th Oct. 1917

Waggon Posts and A.D.S. During the 24 hours ended 6 a.m on October 13th 535 casualties were cleared from the 4th Division front They arrived at the A.D S.

"soaked through, covered from head to foot with thick mud, . . . having been exposed all night to heavy rain before they attacked."[9]

First Passchendaele. 3rd Division. The work of the regimental bearers in this battle is described in the *History of the 38th Battalion (page 38)*.—

October 12th. "A word for the (regimental) stretcher-bearers will not be out of place. It was quite a common occurrence for men to sink to their thighs and waists into the soft slimy mud, which drew one

[9] D.D.M.S I Anzac and War Diary of 4th Field Ambulance.

down, down, for ever downward like some live thing To carry a wounded man from the front line to the R.A.P. was a terrible undertaking. The distance to be covered was less than a thousand yards, but it took six men four, five, and even six hours to do the trip. . . . The heroic deeds performed at Ypres and Passchendaele have never been excelled!"

In their first 24 hours in the line (October 10th-11th) the ambulance stretcher-bearers of the 3rd Division cleared 123 stretcher cases—including 87 from the 66th Division most of whom were wounded four days before[10]—and faced their tremendous task on the 12th already very tired. The conditions of cold, wet, and mud were even worse than on the 9th; the carry by stretcher-bearers had extended to 6,000 yards—160 infantrymen were detailed to help and, in groups of twelve, each with four trained bearers, these accompanied the attacking battalions on the approach march, in the course of which heavy casualties were sustained. By 7 15 p.m. of the 12th the officer-in-charge (Major R. J. Taylor) reported:—

"All my men are done—many of the emergency infantry have run off.[11] A good few cases will have to remain out all night—it is impossible to carry now—too dark and no tracks. Must have fresh bearers, all you can get together, at 5 a.m. It will take 150 fresh men to clear the field by to-morrow evening."

Colonel Maguire at once communicated with his officers at the Prison House and Potijze:—

"Cut your staff (he ordered) so that you have no more than sufficient to carry on. Cut down work at the A.D.S. and send on every case which is not haemorrhaging, and with dressing in position . . . use (your men) 24 hours on end. . . . Cut out the canteen and sanitary squad, officers' mess, batmen, cooks' offsiders—send every available man up at 5 a.m. to-morrow."

The 85 men thus made available went forward at 5 a.m on the 13th, but at 6 a.m. a heavy thunderstorm brought things to a climax At 10.30 Major Taylor reported:—

"the great majority of bearers physically exhausted and unable to do

[10] *See Australian Official History, Vol. IV, pp. 907, 927,* a study of which is strongly commended Wounded from the Manchester Regt. (66th Division) were rescued as long as seven days after wounding.

[11] In his comments on this battle, the Deputy-Director of II Anzac noted —"when infantry are detailed as additional stretcher-bearers it is imperative that their N.C O's and if possible officers should accompany them. Otherwise they soon become dispersed, and are of little use."

more than one or two carries. The country over which the bearers are working is one continuous sea of shell-holes full of soft mud."

In response to an urgent appeal from Colonel Maguire—

"the bearers in the forward area will be exhausted by evening. . . . I have no reserve"

—the A.D.M.S. obtained 200 ambulance bearers of the 66th British Division, who at 9 p.m. on the 13th relieved the 3rd Division bearers for 24 hours.

October 16th-November 10th. By October 17th a precarious equilibrium of bearers and casualties had been established. In the 4th Division the officer-in-charge Lieut.-Colonel J. B. St. Vincent Welch, reported that

"as soon as duckboarding is completed to Zonnebeke Road it will be possible, in ordinary times, to clear the whole Divisional front with the bearers of one Field Ambulance."

The casualties in this division at this time averaged 120 daily.

End of attempt to break through

With the decision to abandon the attempt at a break-through in this year, the "step by step" advance was resumed. The pavement of the Ypres-Zonnebeke road was dug out and repaired and this traffic route extended to link up with Smith's Road at Zonnebeke. The motor loading post was moved up to Frezenberg.[12]

By a costly and painful process of selection and survival, the safest and best routes and posts were found and the latter improved, so that on the fronts of both I and II Anzac (at Westhoek and Zonnebeke) casualties could be retained for a time in the forward zone and cleared at convenience. But throughout their whole tour of the line, October 11th-24th, the bearers of 3rd and 4th Divisions

"had an unspeakable time. A step from the narrow duckboard track meant that the bearer would sink to the waist in mud. . . . So arduous was the work that even fit men could not stand the strain and it was necessary to relieve them very frequently. . . . All spare men and all specialists, dispensing, nursing, even dentists went up in their turn to

[12] "Could the plank roads have been made more rapidly (the Australian Official Historian has stated—*p. 931, Vol. IV*) they might have solved the problem of communication even on this battlefield." In this respect the efforts of I Anzac Corps were outstanding: 18,300 yards of plank road and 10 miles of metal road were made in 27 days



31. Wounded at a relay post near Zonnebeke railway station during the attack on Passchendaele, 12th October, 1917

Aust War Memorial Official Photo No E4503

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32. "IDEAL HOUSE," AN OLD GERMAN PILL-BOX USED AS RELAY POST AND HEADQUARTERS, OCTOBER, 1917

The photograph shows the importance of the duckboard tracks for clearance in the forward area

Aust War Memorial Official Photo No E1513



33. STRETCHER-BEARERS OF THE 9TH FIELD AMBULANCE WORN OUT ON THE ZONNEBEKE RAILWAY EMBANKMENT, 10TH OCTOBER, 1917

The photograph was taken in front of "Thames House" pill-box

Aust War Memorial Official Photo No E941. *To face p 241*

act as stretcher-bearers. . . . There was hardly a man in the forward lines who was not suffering from the effects of gas."[13]

Relief of I and II Anzac. On October 21st II Anzac Corps was relieved by the Canadian Corps, which on the 26th embarked on the struggle that ended on November 10th with the occupation of the whole of the Passchendaele height. I Anzac held a sector of the front till the close of the offensive. The 1st Division replaced the 4th and the 2nd the 5th, their medical clearance being carried out respectively down the Zonnebeke Road by broad-gauge railway from Ypres direct to the Godewaersvelde group, and down the Menin Road by M.A.C. to Remy Siding. As roads and duckboard tracks were pushed forward and building material was made available the conditions at the front were greatly improved.[14]

On November 14th II Anzac Corps came back into the line, relieving I Anzac. But as the 3rd Division was at the same time transferred to I Anzac, all the Australian divisions were withdrawn from the Ypres front. I Anzac went to the now quiet sector in front of Messines.

Health of the troops

The close resemblance—so far as the fighting experience of the A I.F. went—between the conditions on the Somme in the Autumn of 1916 and those of October in the Flanders offensive will have been apparent. Here however the parallel ends. The months spent at Messines were extremely quiet, and a striking feature both of the last operations at Ypres and of the trench-warfare that followed at Messines, was the comparatively light incidence of the disabilities commonly associated with an autumn campaign and a winter spent in the trenches. To this, in the A.I.F., the physical and moral fitness of the troops conduced; but still more did the fact that of the two prime factors in trench foot,

[13] From a report quoted in the histories of the 4th (unpublished) and 9th Field Ambulances.

[14] The diary of the 2nd Field Ambulance (Nov 11) says "At 'Railway Dump' was a long concrete pill-box sheltering under the bank of the Ypres-Roulers railway, we had a room about 12 feet by 9, and a gallery in which cases were stored and bearers rested. Medical stores and Q M's material and rations were distributed from here and [here] the officer-in-charge of the forward evacuation lived . . . The main features of our stay in the line this time were the long lines of evacuation from the Front Line to A D S, about 6 to 7 miles over all, the long carries by the Bearers, and the shelling of the back areas."

wet and cold, the degree of cold had not reached the danger point before the Australian part in the offensive ended. On October 8th, however, 130 cases of "slight" trench foot passed through the 1st Division field ambulances—chiefly from the 2nd Division—and when the corps was relieved the sick rate was rising, reaching on occasions 1·65 per cent. per week. But in spite of the prevalence of trench fever the rate among the Australians fell steeply after relief, and (it may be noted here) remained at a very low figure throughout the winter of 1917-18.

The measures taken in the 4th Division identify the cause of the notable success achieved by this formation in keeping down the sick rate, but not less exactly illustrate the situation at this stage of the war in the British Army and, indeed, in greater or less degree, in every national force. On October 8th the A.D.M.S. issued a circular on "sick wastage."

"The principal causes of the sick wastage during the winter 1916-17 on the Somme," he noted, "were due to the following preventable diseases—Trench Feet, Septic Traumatic Abrasions of Feet, Trench Fever, Scabies and Diarrhoea. Considerable success attended the measures taken by this Division for the prevention of these disorders and it is recommended that they again be put in practice during the coming winter."

These measures he traversed seriatim, indicating in respect to the prevention of each condition the duties of company officers, R.M.O's, commanding officers, brigade and divisional headquarters staffs.

The importance of conserving man-power had indeed at the end of 1917 brought about an attitude on the part of "Higher Commands" toward disease prevention which ensured that every measure for promoting health and maintaining man-power should be an integral element in the organic life of the Army, and not merely an activity of the Medical Service.[15] It can be said indeed that, in the matter of conserving strength by preventing disease, the British Expeditionary Force was well prepared for the supreme trials of 1918.

[15] The evolution of the sanitary conscience (as seen, for example, in the transfer of wide spheres of action from the Medical Department to the Quartermaster-General's Branch) is followed more exactly in the special chapters which deal with disease prevention. The new attitude is illustrated by the following.—On October 10 the D.D.M.S. I Anzac complained to the Corps Commander of the high sick rate in the 5th Division (which in 1916 had achieved a bad reputation) pointing out that this was double that of the 4th. The A.D.M.S. riposted sharply, urging that greater freedom and greater responsibility be given to the divisional administration. Within three weeks the position was reversed—the rate in this Division was 1·33 per cent., that of the 4th 2·42 per cent., the general Army rate being 1·06 per cent. Tenure of the front line was constantly associated with a rise in the sick rate.

TABLE I.—Classification of A.I.F. Casualties by Months.
July to December, 1917.

BATTLE CASUALTIES	July	Aug	Sept	Oct	Nov	Dec	Total
a Killed	535	335	2,570	4,411	323	135	8,309
b. Died of wounds	198	181	666	1,233	205	85	2,568
c. Died of gas poisoning	1	3	3	28	34	1	70
d. Prisoners of war	50	10	25	91	12	18	206
e. Wounded less *b* and *g*	2,183	1,325	9,067	12,378	1,032	431	26,416
f. Gassed less *c*. .	292	97	332	1,675	1,086	150	3,632
g Shell shock "W"	20	12	255	245	26	3	561
NON-BATTLE CASUALTIES:							
h Died of disease	8	13	5	11	9	17	63
i Died of other causes . ..	6	8	7	7	10	19	57
j. Self-inflicted wounds . ..	20	6	15	23	15	15	94
k. Accidental wounds	80	38	32	36	17	33	236
l Sick or injured less *h*., *i* , *j*., or *k*.	7,092	6,031	5 906	8,299	6,142	6,401	39,871
Totals	10,485	8,059	18 883	28,437	8,911	7,308	82,083

TABLE II.—The Various Causes of Casualty in the A.I.F. shown as a Percentage of the Total by Months
July to December, 1917

BATTLE CASUALTIES	July	Aug	Sept	Oct	Nov	Dec	Total
a. Killed	5.10	4.16	13.61	15.51	3.63	1.85	10.12
b. Died of wounds .	1.89	2.25	3.53	4.34	2.30	1.16	3.13
c. Died of gas poisoning	0.01	0.04	0.02	0.10	0.38	0.01	0 09
d Prisoners of war	0.48	0.12	0.13	0.32	0.13	0.25	0.25
e Wounded less *b* and *g* . ..	20.82	16.44	48.01	43.53	11.58	5.90	32.18
f. Gassed less *c* .	2.78	1.20	1.76	5.89	12.19	2.05	4.42
g Shell shock "W"	0.19	0.15	1.35	0.86	0.29	0.04	0 68
NON-BATTLE CASUALTIES							
h. Died of disease	0.08	0.16	0.03	0.04	0.10	0.23	0 08
i. Died of other causes	0.06	0.10	0.04	0.02	0.11	0.26	0.07
j Self-inflicted wounds	0.19	0.07	0.08	0.08	0.17	0.21	0.11
k Accidental wounds	0.76	0.47	0.17	0.13	0.19	0.45	0.29
l Sick or injured less *h*., *i*., *j*. or *k*.	67.64	74.84	31.27	29.18	68.93	87.59	48 58

To permit a closer study of the actual divisional losses the figures are presented in the following tables by weeks covering the period of A.I.F. participation in the actual operations:—

TABLE III.—The weekly incidence of battle-casualties in the Australian divisions during the Ypres operations.

Week ended		K.I.A.	D.O.W.	D.G.P.	Total	Wounded	Gas	S/sh	P.O.W.	Total	Grand Total
22nd Sept.	1st Div.	575	118		693	2,009	3	12	1	2,025	2,718
	2nd "	524	103		627	1,845	8	13	1	1,867	2,494
	3rd "	11	3		14	66	1	1		68	82
	4th "	12	4		16	77	3		1	81	97
	5th "	14	10		24	112	15	1		128	152
	Corps Tps.	25	14		39	97	9			106	145
29th "	1st Div.	19	41		60	56	1			57	117
	2nd "	38	61		99	182	18	4		204	303
	3rd "	22	12		34	135	12	7		154	188
	4th "	357	89	1	447	1,305	23	28	1	1,357	1,804
	5th "	798	121	1	920	2,373	59	171	18	2,621	3,541
	Corps Tps.	21	13	1	35	134	41	3		178	213
6th Oct.	1st Div.	659	121		780	1,752	29	56		1,837	2,617
	2nd "	500	98		598	1,608	4	50		1,662	2,260
	3rd "	479	98	1	578	1,634	41	27	1	1,703	2,281
	4th "	53	53		106	192	3	3		198	304
	5th "	50	44		94	276	34	7		317	411
	Corps Tps.	35	13		48	106	17	7		130	178
13th "	1st Div.	135	73		208	297	2	4		303	511
	2nd "	461	74		535	930	21	11		962	1,497
	3rd "	700	81	1	782	1,830	57	30	5	1,922	2,704
	4th "	421	45		466	877	17	8	84	986	1,452
	5th "	99	31		130	292	7	15		314	444
	Corps Tps.					13	4	1		18	18
20th "	1st Div.	27	26	2	55	54	81	3		138	193
	2nd "	8	33		41	49	62	1		112	153
	3rd "	113	97	4	214	387	105	3		495	709
	4th "	190	93	4	287	657	197	8	1	863	1,150
	5th "	129	47	2	178	374	215	1		590	768
	Corps Tps.	9	2		11	36	21	1		58	69

27th „	1st Div.	82	32		114	286	24	4		314	428
	2nd „	22	19		41	52	38	2		92	133
	3rd „	1	31	5	37	6	14			20	57
	4th „	44	26	5	75	147	75	1		223	298
	5th „	97	61	1	159	321	66	5		392	551
	Corps Tps.	16	7		23	63	1	1		65	88
3rd Nov.	1st Div.	114	38	10	162	312	263			575	737
	2nd „	89	34	6	129	231	398	5		634	763
	3rd „		10		10						10
	4th „	2	15		17	37	17			54	71
	5th „	16	17		33	33	105	2		140	173
	Corps Tps.	11	11		22	38	107			145	167
10th „	1st Div.	88	27	2	117	257	194			451	568
	2nd „	38	27	8	73	168	257	1		426	499
	3rd „	2	7		9	2				2	11
	4th „	1	4		5	5			3	8	13
	5th „	3	10	2	15	27	66	2		95	110
	Corps Tps.	6	4	1	11	50	28	3		81	92
Total		7,116	1,998	57	9,171	21,790	2,763	502	116	25,171	34,342

TABLE IV.—Summary of weekly incidence of battle-casualties in the Australian divisions during the Ypres operations.

Week ended										
Sept. 22	1,161	252		1,413	4,206	39	27	3	4,275	5,688
„ 29	1,255	337	3	1,595	4,185	154	213	19	4,571	6,166
Oct. 6	1,776	427	1	2,204	5,568	128	150	1	5,847	8,051
„ 13	1,816	304	1	2,121	4,239	108	69	89	4,505	6,626
„ 20	476	298	12	786	1,557	681	17	1	2,256	3,042
„ 27	262	176	11	449	875	218	13		1,106	1,555
Nov. 3	232	125	16	373	651	890	7		1,548	1,921
„ 10	138	79	13	230	509	545	6	3	1,063	1,293
Total	7,116	1,998	57	9,171	21,790	2,763	502	116	25,171	34,342

Return to duty—The Rest Stations

As with every agency in the Army which had to do with the maintaining of strength at the front, during the last half of 1917 the work of the rest stations, the first check to "Army" wastage, was subject to close oversight and made much more exact and purposeful,[16] in particular by limiting the number of cases admitted, and the duration of their stay.

"The difficulty of running a Rest Station," wrote the C.O. of the 3rd Field Ambulance, "is to determine a standard of fitness for discharge. To avoid overcrowding I have to evacuate many in 3 or 4 days if I am to keep men till they are really fit for fighting."

Though the need for controlling wastage from the front was never greater, it was realised that undiscriminating retention within the Army area of all men with mild complaints did not serve the end in view. At the end of September the D.M.S., A.I.F. (Surgeon-General Howse) inspected the 1st Division's rest station at Wippenhoek. The chief purpose of his visit was that of conserving man-power for the front—a problem which he had made the keynote of his administration from the outset of his career in the A.I.F.; yet he condemned the general practice of retaining in the Army rest stations cases of trench foot, of P.U.O.—usually trench fever—chronic ulcers, sore heels, and "I.C.T."[17] With a view to saving wastage during the winter, the scope of the rest station was extended by using the casualty clearing stations for this purpose. On December 6th No. 1 A.C.C.S. was made a "Corps Rest Station" for the reorganised "Australian Corps."

Casualties Third Battle of Ypres

The casualties sustained by the A.I.F. in Flanders during the latter half of 1917, as presented in the preceding tables, illustrate the extent of Australian participation in the Third Ypres operations.[18]

[16] On October 20 the Corps Commander, General Sir William Birdwood, when inspecting the 1st Division's Rest Station at Wippenhoek, commented on the importance of the Quartermaster's Department and of cooking, and approved a unit canteen at which light beer was supplied to the men.

[17] For the month ending October 31 in this station 1,030 cases (sick and wounded) were admitted. Of these 622 were evacuated and 392 "returned to duty," the average stay being 6 days for the former and 11 days for the latter.

[18] The average strength of the A.I.F. on the Western Front (i.e. in the B.E.F.), July-December, 1917, was as follows:—

July	121,259	Sept	123,842	Nov	112,651
Aug	121,996	Oct	116,249	Dec	113,610

During the eight weeks that the A.I.F. were engaged in the Third Ypres fighting the A.A.M.C. sustained 697 casualties equalling 2·03 per cent. of the total A.I.F. battle losses; the weekly variation in the percentage was —

Week ending	Sept 22nd	Sept 29th	Oct 6th	Oct 13th	Oct 20th	Oct 27th	Nov 3rd	Nov 10th
Percentage	2·2	1·9	1·4	1·0	3·8	3·4	4·0	2·5

TABLE V.—Summary of weekly incidence of battle-casualties in the A.A.M.C. during the Ypres operations

Week ended	K.I.A.	D.O.W.	D.G.P.	Total	Wounded	Gas	Sick	P.O.W.	Total	Grand Total
Sept. 22	19	9	—	28	95	4	—	—	99	127
„ 29	12	18	—	30	67	11	7	—	85	115
Oct. 6	19	11	—	30	66	12	1	—	79	109
„ 13	14	7	—	21	42	4	—	—	46	67
„ 20	8	6	—	14	47	54	2	—	103	117
„ 27	12	9	1	22	25	6	—	—	31	53
Nov. 3	7	1	—	8	21	47	1	—	69	77
„ 10	9	2	—	11	11	10	—	—	21	32
Total	100	63	1	164	374	148	11	—	533	697

Medical Officers. In the course of these battles (September 16th-November 10th) 12 medical officers of the bearer divisions and 2 R.M.O's were wounded. During the same period 10 medical officers were killed in action or mortally wounded; they comprised an A.D.M.S. (Colonel Hearne), 4 field ambulance officers, and 5 R.M.O's.[19]

"Lessons" from Third Battle of Ypres Certain features of the Flanders Campaign call for a special note.

1. Technique of Evacuation, Transport, Treatment, I Anzac Corps. By order, surgical treatment at the A.D.S. or 'up the line" was reduced to absolute essentials; but with each advance this irreducible minimum expanded more patients were held for treatment at the corps main dressing station, more ample provision was made for sustainment and resuscitation in the advanced ambulance posts. At the end of October a "ward" was constructed in the A.D.S. in Ypres "for the treatment of shock cases Here," says the diary of the 2nd Field Ambulance on

[19] The commander of the 19th Battalion, Lieut.-Col. C. R. A. Pye (a medical practitioner of Windsor, N.S.W.) was killed in action on October 4.

October 31st, "a patient may rest for some hours until he is in a fit condition to stand the journey to C.C.S." But, in I Anzac the significance of the time element in evacuation and importance of rapid movement took hold of administrative and executive officers alike.[20]

In II Anzac (on the other hand) the corps main dressing station was avowedly a treatment (not a transport) link in the line of evacuation.[21]

Facts and figures available do not permit of an exact evaluation of the results achieved by the "forward movement" which involves the whole question of the results of war surgery. "To compare surgical results" of the Battle of Pilckem with those of Messines the British Official Historian examines the number of deaths among wounded treated in C.C.S's, and the hospitals on Lines of Communications between 7th-13th July, and 31st July-6th August. It showed a slight advantage in favour of Messines—4·3 per cent. against 4·6 per cent Though complete figures are not available it is certain that the proportion of deaths among the rescued increased greatly in the last phase of the offensive. Over the whole campaign the number operated on—which varied inversely in the various casualty clearing stations with the numbers admitted—was 28 per cent. in the Remy group and 48 per cent. in No. 1 and No 2 A.C.C.S. (Bailleul and Steenwerck). During June the percentage in the latter was 13·8.

From the point of view of the stations themselves the arrival of a full train-load of wounded at once caused great inconvenience.

The balance in favour of the methods of Messines may well be explained by the weather. But the experience (or experiment) laid bare a fallacy. Even during the operations exact research—on the battlefield, in the casualty clearing stations, and in the laboratories at home—revealed the importance of physiological factors in the treatment of wounded men as equipotent in the conservation of man-power with the time-factor in the aseptic treatment of war wounds. The result of excessive regard for the time element in dictating the sites of the casualty clearing stations, and the outcome of the observations made in the course of the battles on the matter of treatment in the field units, are among the most dramatic and interesting medical events of 1918

2. Humanity v. Efficiency—Stretchers and Walking Wounded. A study of the emotional content of the medical events of Third Ypres, and statistical analysis of its facts and figures, if read together reveal "lessons" and lines of thought which lead to curious and far-reaching results. Out of the welter of strivings and sufferings of these battles and their immense toll of casualties, one amazing fact emerges which throws light not only on the local and immediate medical problems, and the reason for all this medical to-do, but on the *raison d'être* of medical service in warfare The clue to it lies in the figures which give the

[20] In a memorandum to the Deputy-Director the officer directing the Corps Central Bureau (Major D. S Mackenzie) made suggestions for still further expediting the movement of the wounded to the Base. "In busy times the walking wounded arrive without field medical cards . . If cards were supplied it would . save congestion at the C C S and allow the cases to be pushed right through instead of having to take the dressing down . By reports from C C S's it would appear that the wounded arrive dressed 'as well as ever.'" In this connection, *see also Chapter xi and Appendices Nos 9 and 10*

[21] In his diary of October 12 it is referred to by the D D M S II Anzac Corps as an "Advanced Clearing Station"

proportion of "killed" to "wounded," and in the latter of *stretcher cases* to *walking wounded*. On an average of the whole war, the proportion in the A.I.F. of killed to wounded and died of wounds, gassed, and shell shock was as 1 . 4·2. For the period October 1st to 31st this proportion was maintained at 1 : 3·5. Thus the number of seriously wounded men rescued from death on the battlefield, in relation to the total casualties, was so small, or varied so little with circumstances, that even under conditions so adverse as those of October the ratio was influenced only to the extent here shown

At the same time records and statistics are eloquent of the immense resources required to achieve this rescue: transport and personnel were expended almost entirely in the collecting and clearing of stretcher cases. And yet from the standpoint of maintaining the numerical strength of the army, the walking wounded were incomparably the more important: here was spoil from the grindstone, that might be used for further attrition, whereas of stretcher cases only an insignificant number came back to the mill. But in the complex of motives, instinctive and rational, which determined the relation between man and man in the war, none was more potent than the impulse to attempt the rescue of helpless men. However inexorably he might be compelled, or rashly induced to sacrifice his men in the attainment of victory, no Army Commander could afford seriously to neglect the service of humanity even in the interests of efficiency

3. Cost of Rescue. the Bearer Divisions. Summing up the experience of these operations the Deputy-Director II Anzac (Colonel Begg) gave his opinion that "when the conditions are bad and hand carriage long, at least 600 fresh stretcher-bearers are required on each Divisional front every 12 hours. Thus 9,900 are required in addition to the Field Ambulance bearers"—almost the equivalent of a division of troops. The estimate must, it is true, be discounted, as applicable only to heavy casualties under extraordinary conditions. But the fact that the opinion is given by a responsible and very able officer justifies an examination of the type of strategy which should bring about such a situation.

4. The Price of Attrition: quis custodiet ipsos custodes? It is not the place of the Medical Service to comment on matters of military strategy and tactics. The decision of the Commander-in-Chief to expend or risk his effectives in wastage through disease and physical disablement is subject to the same principles of military science—conservation of force and so forth—as obtains in the case of battle-casualties. But in a service of maintenance whose *raison d'être* rests on its knowledge of the physical potentialities and limitations of the human machine,[22] it may be permissible, perhaps, to ask, with the A.D.M.S. 2nd Division (in reference to the task set this division on October 9th), "when will these Generals learn that we are but men?"[23]

[22] On the question of responsibility for deciding on physical grounds the fitness for duty of a soldier in the field, both General Howse, the D.M.S., and General White, Chief of General Staff A.I.F., have since the war strongly affirmed, in discussion with the writer, the authority and the responsibility of the Medical Service—as against (for example) the Company or Platoon Commander

[23] Colonel Sutton's personal diary October 9th.

An article in *The Fighting Forces* of August 1936 on "The Human Element in War" examines the problem of human limitations in relation to the new warfare "We must," the writer properly urges, "make allowance in our estimate for failure in the human element as well as technical breakdown In fact we will do well to remind ourselves we are but human after all"

5. Results of Attrition, the Human Material There is nothing recorded of the Great War more worthy the attention of the human race than the proofs multiplied a million times of the triumph of the spirit of man over his physical self and his material environment Of both sides it can be said that the heaviest bombardments left always some intrepid spirits ready to hold a strong-post against the enemy advancing behind his barrage, and to inflict heavy damage before death unfeared took their bodies. That it was much more true of the first three years of the war than of the last is a tribute to the ingenuity and energy of those whose business it was to find means for breaking the stoutest hearts and for driving all but the noblest spirits to women, wine, or a "war neurosis." We have Ludendorff's word that the German morale was severely shaken by the Flanders offensive.

"The enormous material resources of the enemy had given his attack a considerable preponderance over our defence, and this condition would become more and more apparent as our best men became casualties, our infantry approximated more nearly in character to a militia, and discipline declined."[24]

The events of 1918 were to show that this attrition had been mutual.

The Third Battle of Ypres stands a landmark in the course of the war on the Western Front—the watershed between the battles of siege and attrition, and those which achieved movement and the promise of victory. As their final effort of 1917 both sides staged a rehearsal of their own conception of the new tactics.

End of attrition: Battle of Cambrai

On December 5th the 4th Division, settling down to enjoy a long promised rest near Abbeville, had its pleasant anticipations suddenly broken by orders to entrain at a few hours' notice for Péronne. This sudden move, strikingly prescient of an even more urgent occasion, marks an event so significant and crucial in the history of the Medical Service and of the war as to demand attention though the Australian Medical Service was but slightly involved.

By the middle of November the Salient had settled down to its normal state of stagnant desolation. On the scene of these dreadful battles the fitful gleam of autumn suns lit up a waste more Stygian than any conceived by Dante or pictured by Doré. Haig's General Staff had shed its belated tear over the swamps of Passchendaele; a realisation of the true cost of the great British offensive had fallen with stunning impact on the British nation and its statesmen. Then on November 21st

[24] General Ludendorff, *My War Memories, Vol II, p 541-2*

there came news from the front that set bells in England pealing for a famous victory. By a surprise effect of massed tanks, sudden bombardment, secrecy, a success was achieved that was dramatic, unprecedented and, for most onlookers, unexpected The Hindenburg Line was broken at Cambrai; the advance was not for a paltry thousand yards or so, but a deep bite far beyond the enemy artillery—and this had been accomplished in a matter of some 48 hours, with a capture of guns and prisoners hitherto achieved only by weeks or months of expensive attrition.

The German Counter-attack. But the British offensive was a flash in the pan—there was no charge to explode No provision had been made not merely for any strategic exploitation of a break-through but even for effective and co-ordinated tactical exploitation of a local success. For want of further purpose or possibilities the British force stayed where it was, in a sharp salient—to receive one of the most shocking reverses in the history of British arms, delivered by a foe not slow to seize the chance to try out, with a definite and tremendous purpose in view, his own scheme for exploiting the results of attrition. Ludendorff's counter-stroke was immediate and terrible. Starting on November 30th by a swift concentration of specially trained troops, sudden intense bombardment, and intelligent penetration of the breach to the extreme limit of available resources, the German General Staff in the course of three days' fighting not only restored a practical *status quo*, but achieved a tactical success such that circumstances only precluded its exploitation into a major disaster for the Allies.

Medical events

The methods used by both sides were precisely those employed in 1918; and the medical events of both phases of the battle are not less illuminating of the future than the military.

First Phase. In the expectation that the advance would be rapid and considerable, arrangements were made in the III Corps to bring the patients direct from the A.D.S. to the C.C.S., the M.D.S. being held in reserve. The result was a very rapid concentration of wounded in the C.C S. group at Ytres four miles behind the old front line.

From the point of view of transit the "experiment" was most successful, the casualty clearing stations being indeed almost overwhelmed. Their experience is used by the British Historian to point a favourite moral.

"This experience of a system of direct evacuation from advanced dressing stations to casualty clearing stations is important, as it emphasizes the fact that wounded as a whole are not more advantageously dealt with in battle under such a system than they are under the normal system. The rule, however, that the comparatively small number requiring urgent operations . . . should be sent direct to the nearest casualty clearing station or advanced operating centre always held good; but

there was no advantage in dealing with all the lying down wounded in the same way. The general result was that wounded were held up for long periods either at advanced dressing stations pending the return of cars, or at casualty clearing stations until the cars could be unloaded or until the congestion at the casualty clearing stations could be relieved"[25]

It must be said, however, that the surgeons, seeking to eradicate gas gangrene and sepsis from *all* war wounds, saw in successful transport not a menace but an opportunity.

Second Phase (November 30th-December 6th). The chief features of medical experience in the second phase were the heavy losses in material and personnel in the field units, the large number of "missing," and the grave risk of capture run by the casualty clearing stations.

"The disadvantage of having large immobile dumps of medical stores in advanced centres and casualty clearing stations near the front line became prominent. . . . In the VI Corps . . . seven cars of No. 21 M.A.C. were ditched and had to be abandoned, but the drivers carried the wounded away with them. . . . In the III Corps one (medical) officer was killed, three wounded, and six missing. Amongst other ranks, 1 was killed, 21 were wounded, and 163 missing. . ."[26]

Casualties in the other Corps were only less serious.

"The casualty clearing stations at Ytres were in imminent danger of capture. Orders were consequently issued for the nursing sisters to be sent back by ambulance cars, and the surgical teams distributed. . . The remainder of the personnel were to salve as much of the equipment as possible and retire to places of safety, leaving sufficient personnel in charge of wounded until all could be got away."

In all 29,068 wounded were evacuated from this battle. The Australian units involved (No. 2 Squadron, A.F.C., and 55th Siege Battery) lost only twelve (eight wounded). The 4th, 12th and 13th Field Ambulances of the 4th Division partly opened up for their brigades around Péronne, but were not called on to deal with any battle casualties.

Comments. For those who now, facing a future dark with rumours of warfare even more dreadful than that with which this history is concerned, seek a sign from the experiences and reactions of the human material caught in the madness of mutual "attrition" of the "Great War," or from the failures or successes of those who determined its strategy and tactics, Cambrai stands out clear against the sombre background of the years 1916 and 1917, token at least that the deliberate

[25] *British Official Medical History, General, Vol. III, p. 195*
[26] *Ibid., pp. 197-8*

"attrition" of the manhood of nations may be "war" but it is not strategy —is not even "scientific."

For the Medical Service we see in Cambrai a miniature of the greater events of 1918. During three years of "stationary warfare" a vast and immensely complex system of transport and treatment had been built up which subserved and conformed to the methods of attrition warfare—and its purpose not less than its methods. For if (on the side of technique) the system of collection, evacuation, and distribution of casualties was speeded up as never before, the effect—indeed, the deliberate purpose—of this was chiefly to feed the war machine for further "attrition." From Cambrai onwards the consumption of man-power ceased to be an end in itself.

The Medical Service and Man-power

The military[27] problem of both sides was now essentially one of man-power. At the end of 1917 both the Allies and the Central Powers were set on victory, not on a settlement. The Central Powers, in spite of the failure of the U-boat blockade, were encouraged in their hopes by their successful defence in the West, the reduction of Russia, and victory at Caporetto; the Allies looked forward to the prospect of tapping the vast man-power of America. In the wearing-down competition the Allies had fared badly in respect of man-power, if not of morale.[28] An exact comparison of their casualties with those of the Germans is impossible, since the published figures for the various contending armies are based on different categories. For example the figures for the German loss are said to exclude all casualties except those evacuated from the "Army" area. Even after making large allowances, however, it seems certain that the losses of the Allies in "wearing down" the German Army were greater than the loss in the German Army itself.[29]

It was known that on the Western Front, which now, at least, was the crucial one for the Allies, they must be prepared to sustain an attack supported by some 40 fresh Divisions which the enemy could now bring from the Russian front.

The new defensive rôle to which the Allies were thus forced

[27] The medical involvements of the war of civil attrition, economic and morale (blockade, bombing, and propaganda), are examined in *Vol. III*

[28] To what extent the success in this respect of the Central Powers was due to superior strategic methods, to the advantage of defence over attack, to the quality of the German race, or to a greater success in preventing disease and promoting repair, are matters of the highest moment for those whose duty it is to provide for national defence.

[29] See *Australian Official History, Vol IV, p 943*

Allies on the Defensive

at the end of 1917 called for action in two directions:—(1) the construction of material ramparts and accumulation of defensive equipment and material, together with the formulation of defensive tactics and training of the troops therein; (2) the building up of a sufficient reserve of man-power and its maintenance. In respect of (1) the Medical Service had to create a technique to meet its own special problems. An account of the response to the new conditions by the Director-General of Medical Services B.E.F. will be found in a later chapter.[30] In respect of (2) Haig at least was under no misapprehension of the serious nature of the problem. Conscription had failed to find drafts to make good the heavy drain of casualties.[31] In the British Army on the Western Front the number of battalions in each division was reduced from 12 to 9 and a reduction in the effective strength of battalions was tacitly accepted as inevitable. Moreover the quality of recruits had deteriorated, consisting as these now largely did of boys under 19 or the siftings of rejects.[32] It thus came about that in the effort to maintain the British front (apart from the tactical use of the troops) the Medical Service was called on to play the part of a veritable *deus ex machina*.

The Australian Imperial Force

For the Australian Imperial Force, not less than for the British Army and the Allies, the end of 1917 marked a critical occasion in the war. In the A.I.F. the problem was twofold: (1) the maintenance of the striking power of the Australian formations in the field, and (2) the organisation and command of those on the Western Front.[33] In effect the two problems were closely related.

1. The Problem of Man-power and Maintenance. The prob-

[30] *Chapter* VI (*pp. 608-9*).

[31] To save the situation on the Italian front after Caporetto, French and British reinforcements had to be sent thither, including a British force of two Army Corps—5 Divisions—under General Plumer. With the medical personnel went a number of Australian medical officers and a strong contingent of Australian nurses

[32] In the British Army the age of enlistment was reduced to 18 years at the end of January 1917, and in the French Army at the end of 1916. In the German Army 'the 1917 class"—*i. e.* 20 years of age in 1917—was called up some 18 months before its time, the 1918 class at the end of 1916—*i. e.* at 18 years of age The 1919 class was called up for the most part between 17½ and 18 years. The 1920 class was being used early in 1918.

[33] For the situation of Australian troops in Egypt and Palestine see *Vol I* (*Part II*) of this work

lem of man-power in the Australian Force was in one respect special to it. Of all the important homogeneous self-governing States involved in the Great War Australia alone had seen fit to adhere to the principle of voluntary enlistment for military service abroad.[34] One effect of this was greatly to increase the importance of the Medical Service as a factor in the maintenance of man-power. This was foreseen at the outset of the war by Lieutenant-Colonel Howse[35] and we now find him, as D.M.S., A.I.F., closely in the confidence of its commander, and himself active in initiating lines of action, in connection with both aspects of the military problem as set out above.

Particular study of the situation in the A.I.F. in respect of man-power is made in later chapters.[36] Briefly, the losses in the Flanders offensive—42,000 of the 77,000 battle-casualties sustained by the Australians in France during 1917—left all the divisions much below strength. At the same time recruiting had fallen off and enlistments were now far below the demands. Nor was the question of strength the only pressing one. As Surgeon-General Howse had always insisted,[37] to achieve and maintain reputation as a *Corps d'élite,* to which the A.I.F. aspired, the quality of its reinforcement was as important a matter as strength; and his virtual control of the policy and methods of the Command Depots, and close oversight of the new recruits arriving, now put him in a position to enforce this view. This policy (as he was at no pains to disguise) would still further reduce the numbers available to reinforce the front line units. His estimate for the sick wastage in the A.I.F. for

[34] *In Canada* "after a violent political struggle the Military Service Act was signed by the Governor-General on 28 August, 1917, and was put into operation as soon as the necessary arrangements could be made" (*Official History of the Canadian Forces: Medical Services, p. 154*) *In New Zealand* "the Military Service Act, giving power to use compulsion, where volunteers were insufficient, became law on the 1 August, 1916 . . ." (*The Empire at War, Vol. III, p 383*)

The decision of the Australian people, and its influence upon the efficiency of the A.I.F. are discussed in *Vols III, V,* and *XI* of the *Australian Official History of the War* Its influence on the pensions problem is examined in *Vol III* of this work.

[35] *Vol I p 41*

[36] In *Chapter xxv*, dealing with the procedure of "return to duty" and the "B class" problem; and in *Chapters xxi* and *xviii* concerning the problem of strength in the final clash. It may be well however to record here that the terrific drain on national manhood brought about by the mass-slaughter of attrition warfare was such as to make necessary demands for reinforcement quotas far in excess of any hitherto conceived to be necessary (*see Vol. I, p. 369*). The proportion of their national manhood absorbed into the Armies of the various belligerents in the Great War and other features of the military problem of man-power germane to medical history are examined in *Vol. III* (Recruiting in Australia).

[37] *See Vol I, p 90*

the winter 1917-18 was 4 per 1,000 per day (that for 1916-17 being 3·2).[38] Some drastic action was clearly necessary in the direction either of increasing the supply of effectives, or of reducing the demand in the field formations, or, more probably, of both.[39] On the political side the idea of conscription was again taken up; on the military a reduction in the number of battalions per division and the disbandment of a division to reinforce the rest were debated. The substitution of "B" for "A" class men at the base both in Britain and France, and to some extent also at the front, was taken in hand systematically.[40]

2. Organisation and Command. By the terms of its inception[41] the A.I.F was predestined to ultimate autonomy as surely as the Australian people to some form of nationhood; but it would be an autonomy contained no less definitely within the British Army than the Australian Commonwealth was contained within the British Empire. In the accomplishing of this autonomy two factors were involved: first, the grouping of the Australian divisions under Australian command for military action,[42] and, second, the replacement of British regular officers in command and on the staff by Australian citizen soldiers.[43] At this time a proportion of the Corps, Divisional, and (to a

[38] He based his forecast "on the fact that men having once had Trench Foot would more readily go down again under adverse conditions, also the Australians being used to a warm climate would feel the second winter far worse than the first." (Diary of D D M S, I Anzac, *27 October, 1917.*) That the estimate proved excessive was in part due to the fact that it was made early, and appropriate action instituted

[39] On November 4 the G O C, A I F Depots in U K (Maj.-Gen J W M'Cay) prepared at the request of the D.M.S, A I.F. a statement of the situation in the depots which was sent to A I F Headquarters in France On figures supplied by "3rd Echelon" he found that "Army" wastage from the Australian formations amounted to 12,000 per month (in almost equal numbers of sick and wounded) Examining the situation in respect of new recruits, and of convalescents recovering in the Command Depots and at the Base in France, General M'Cay concluded that by March 1 this deficiency would amount to 21,000 and in May to 35,000 below establishment.

[40] A.I F. Order No 1,000 of 4 December, 1917, gave effect to a War Office letter of November 3 instructing the replacement of R A.M.C. personnel attached to battalions for "water duties" by "B" class men The reaction in the A I F to this retrograde step and to the whole problem of the "B" class soldier, is examined later (*See p. 716*)

[41] *See Vol. I, p. 31.*

[42] The circumstances of the accomplishment of autonomy for the purposes of interior self-government are narrated in *Vol. I, Chap. VIII*

[43] The infantry element of the Canadian Force consisted of a single Corps of 4 Divisions with one "Depot" Division. Command and administration were almost wholly by Canadian officers The Canadian Corps and Divisions as well as the Canadian Medical Service as a whole were directed by Canadian officers The advantages and drawbacks associated with this are admirably discussed in the *Official History of the Canadian Forces in the Great War 1914-19 (Medical Services)* by *Sir Andrew Macphail*

less extent) Brigade staffs, were British Regular officers. The Medical Service was the least concerned since only one British officer of the "Regular" Army[44] had been appointed—namely the Deputy-Director of I Anzac Corps, Colonel Manifold. A second result of the years of war—and a constructive one—lay in the fact that of those who had sustained its trials and its chances a large proportion had by now fully mastered the technique of mutual destruction—in the case of the Medical Service, of retrieving the flotsam and jetsam of attrition. And this proficiency reached from the comparatively simple craft of the private soldier to the highest and most responsible positions Furthermore, trial by battle had brought to the front those most fully qualified for leadership or direction. Self-consciousness of ability to stand alone came to the A.I F. coincidently with the necessity for reorganisation. Of this coincidence was born the "Australian Corps."

That the desire for autonomy was not a matter of individual feelings or ambitions but of "national" aspirations is made clear by correspondence between General Howse, the D.M.S., and General White, the A.I.F. chief of staff, which appears to have initiated the movement. In a letter dated 20th July, 1917 Surgeon-General Howse wrote: "A very strong feeling exists and is spreading among the A.I.F. that we should have an Australian Corps," and that so far as possible it should be staffed by Australian officers.

"It looks a rotten thing to even discuss the question of replacing Imperial Officers who have done so well, but we cannot overlook the fact that we are now nearly three years at war and we should have made our officers competent during that time"

He added that he was "blamed for the continuance of the system so far as the Medical Services are concerned"—not, he stated emphatically, on personal grounds—in relation to Colonel Manifold—but "as a reflection on the (Australian Medical) Corps."

As the urgency of the crisis in Allied affairs became evident this combined problem of man-power, reconstruction, and autonomy was debated with increasing directness and purpose between the A.I F, the War Office and Imperial Government,

[44] Colonel Manifold was an officer of the Indian Army Medical Service

and Australia. In this work it is necessary only to state the results.[45]

The steps taken

1. Man-power. To increase the available supply of effectives action was taken along a number of independent lines related only in their purpose.

Recruits. With a view to a radical solution of the problem of man-power the Prime Minister of Australia, Rt Hon. W. M. Hughes, initiated a second referendum, which on December 20th asked authority from the people—including the A.I.F.—for a modified and controlled form of conscription. In view of this project the question of breaking up A.I.F. Battalions or a Division was temporarily postponed. The vote of the Australian people, however, again rejected conscription, with the result that during 1918 reinforcements consisted largely of recovered men

Return to Duty. (*a*) *Convalescent ("Command") Depots.* The military control of the depots in England was tightened up and medical and combatant activities were closely co-ordinated. At the same time the facilities were improved for return to duty direct from the Hospitals in France through the Australian Base Depot at Le Havre.

(*b*) *Army Zone Rest Stations.* The use of casualty clearing stations for this purpose greatly extended the facilities for early treatment in the field of mild complaints.

Wintering. As the result of initiative on the part of General White, the Australian Divisions in France took over for strictly defensive action a sector in front of Messines; the original intention had been for them to winter in the Salient in preparation for a spring offensive, the idea of which was soon afterwards abandoned.

Promoting Health. During the winter 1917-18 the staffs of Australian divisions entered with vigour into the drive for promoting the health and morale of the troops which marked this fourth winter of the B.E.F. in France. Important features of this campaign were Corps and Divisional Schools of Sanitation, Cookery, Ambulance and C.C.S. work; a great development of Baths and Laundries; increased facilities for the treatment and prevention of skin infections and infestations and of trench foot; dental work; physical and psychical tonics—amusements, recreation, local and general leave; and—most important perhaps of all—a close study of dietetic requirements. These measures will be considered later.

Promoting Recovery. The developments in war surgery at this time, and the effect of these on "return to duty" are an important part of the general military history of this period.

Discipline. A strong move to lessen the great amount of illegal

[45] The matter is dealt with at length in the *Australian Official History, Vol V, Chapter* I

There can be no question more interesting to Imperial and Dominion statesmen and jurists, and none the solution of which would more effectively resolve the problem of the constitution of the British Commonwealth, than that which seeks to determine the nature and genesis of the instincts and sentiments that caused the Australian Imperial Force to desire so ardently and to respond so effectively to the "unification" of the Australian formations into a single Corps, commanded and administered by Australian officers

absence ("A.W.L.") in the A.I.F.[46] led to a prolonged triangular discussion between Australia, the British Government, and the British and A I F Field Commands with important and far-reaching results. The close affinity between "crime" and the medical problems of "shell shock" and "malingering" brings this matter within the scope of the chapter in *Volume III* dealing with mental disorders in the war. Efforts to diminish the incidence of Venereal Disease are also dealt with in a special chapter in that volume.

It will thus be seen that there occurred at this time an important integration of all activities relating to the maintenance of man-power.

2. Disbandment Temporarily Avoided. As already mentioned, to decrease the requirements of the A.I.F. the War Office proposed that the Divisions be reduced to four and the establishment of these cut down. Happily this negative and defeatist line of action was, for the time avoided. By promise of vigorous efforts to promote recruiting it was secured that the Australian formations remained intact. At the same time the military objections of the Commander-in-Chief to the formation of a five Division Australian Corps—a departure from the now normal four divisional establishment—was adroitly escaped by the suggestion of General Birdwood that the 4th Division should act as a depot to the other four Divisions of an Australian Corps. The Corps was formed in November but took on its new name on January 1st. Similarly, with General Birdwood's sympathetic understanding and advocacy, the Australian desire for autonomy now resulted in the early replacement of the remaining British officers in the Corps by Australians.

The arrangements outlined above were arrived at in December 1917 and the spring of 1918. But before full effect could be given to them the German thunderbolt had been launched, and the Australian divisions were scattered over the British front, serving wherever pressure was greatest.

[46] At the beginning of March, 1918, nearly 9 Australians per 1,000 were in field imprisonment as against a maximum of 2 per 1,000 in the other Dominion Forces The explanation of this, however, lay chiefly in the fact that the release of first offenders had to be restricted in the A I F in which no death penalty was applicable. *See Australian Official History, Vol V, Chap 1*