FOURTH SUPPLEMENT

TO

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THURSDAY, 10 APRIL, 1919.

*War Office,*
*10th April*, 1919.

The Secretary of State for War has received the following Despatch from Field Marshal Sir Douglas Haig, K.T., G.C.B., G.C.V.O., K.C.I.E., Commander-in-Chief of the British Armies in France:—

*General Head Quarters,*
*British Armies in France,*
*21st March*, 1919.

Sir,

I have the honour to submit the following final Despatch in which is described the advance of the British Forces into Germany and the occupation of the bridgehead East of the Rhine at Cologne. I include in this Despatch a brief review of the chief features of military interest which stand out among the operations of the British Armies on the Western front during the time I have been in command of them. I take this last opportunity also to refer by name to some few of the many able and gallant officers who have assisted me in my task, and to thank them personally.

## PART I.

### THE ADVANCE INTO GERMANY.
(11th Nov., 1918—31st Dec., 1918.)

*Arrangements for the Advance.*

(1) At 11.00 on the 11th November, 1918, at which hour and date the armistice granted to Germany by the Allies took effect, the British front extended over a distance of about 60 miles from the neighbourhood of Montbliart, East of Avesnes, to just North of Grammont (vide attached map).* This front from South to North was held by troops of the Fourth, Third, First, Fifth and Second British Armies, all of whom were in hot pursuit of the enemy at the moment when the armistice came into operation.

The provisions of the armistice had settled in general terms the course to be followed subsequently by the belligerent groups of Armies. To co-ordinate the action of the Allied Armies, instructions of a more detailed character were issued by Marshal Foch to all concerned, and these formed the basis of the orders given by me during the period covered by this Despatch.

* Not reproduced.

Troops were at once directed not to advance East of the line reached by them at the time when hostilities ceased, and certain parties of Germans taken prisoner after that hour were returned to the enemy. Outposts were established along this line both for the sake of military security and in order to prevent all possibility of fraternisation. Behind these outposts the remainder of our forces were grouped and concentrated.

It was arranged that the forward movement of the different Allied Armies should be carried out by certain definite stages, through separate zones of action. The zone allotted to the British Armies extended from the front then held by us in an easterly direction as far as the German frontier, whence it continued in a North-easterly direction to the Cologne Bridgehead. The boundaries of this zone and the stages of the advance are shown on the attached map.*

In order to permit the enemy to withdraw his troops from the area immediately in front of us, our positions were maintained unchanged until the morning of the 17th November. Thereafter, to avoid all possibility of collision between the opposing forces, the movement of troops towards the frontier was regulated so as to preserve a safety zone of 10 kilometres in depth between our advanced detachments and the enemy's rearguards.

The general advance into Germany was directed to begin on the 1st December. On the 12th December, French, American and British forces would cross the Rhine at Mayence, Coblentz and Cologne, and commence the occupation of bridgeheads having a radius of 30 kilometres from the crossings at those towns. By that date, the enemy was bound by the terms of the armistice to have withdrawn his military forces a distance of 10 kilometres from the right bank of the Rhine and from the perimeter of the Rhine bridgeheads.

*Re-adjustment of the British Forces.*

(2) As we progressed eastwards, the front held by the British Armies, already short, would automatically be decreased. On the other hand, the maintenance of supply across and beyond the battle areas presented difficulties which would grow rapidly as our communications lengthened. These two considerations made it both feasible and necessary to effect a redistribution of troops, so that the extent of the forces advancing into Germany should be no more than was absolutely necessary to meet military requirements.

I decided that the opening stages of our advance should be carried out by the Second and Fourth Armies, under command of the two senior Army Commanders General Plumer and General Rawlinson, and that each Army should consist of four Corps each of four divisions. To ensure rapidity of movement and to facilitate supply, the artillery and auxiliary arms and services accompanying these Armies were cut down to a minimum, and all surplus units then attached to them were transferred to the First, Third and Fifth Armies. Arrangements were made for reorganising these last mentioned Armies and for withdrawing them to areas farther West.

*The Advance to the German Frontier.*

(3) At 05.00 on the morning of the 17th November the 2nd Cavalry Division covering the front of the Fourth Army, and the 1st and 3rd Cavalry Divisions covering the front of the Second Army crossed the line reached on the 11th November and commenced the march to the German Frontier. The leading infantry divisions moved forward on the following day.

The advance was carried out under active service conditions, cavalry leading and all military precautions being taken. Among all arms, the general bearing, smartness and march discipline of the troops were of a high order, reflecting credit on the Army and the nation. All traces of the desperate fighting and forced marches of the previous months had been removed, and men, horses, guns and vehicles appeared as though turned out for parade. Throughout the advance, despite long distances covered under difficult conditions, indifferent billets and the absence of the usual opportunities for bathing or renewing clothes, the same general standard of excellence was maintained in a remarkable degree.

The first troops to complete the portion of our advance which lay through Belgium were patrols of the 2nd Cavalry Division, who arrived on the German frontier in the neighbourhood of Beho on the night of the 28/29th November. Next day the frontier was reached by the 1st Cavalry Division along the whole front of our advance. The infantry, who had been marching steadily in rear of the cavalry, closed up behind them in readiness for the advance into Germany.

During this part of our march the various stages above referred to were strictly observed, except that in front of our general advance detachments of cavalry had been sent forward to keep order in Charleroi and Namur in response to requests received from the local authorities. Everywhere our troops were received with the utmost enthusiasm by the population of the liberated districts.

In every town and village streets were festooned with flags and spanned by triumphal arches bearing messages of welcome. Men, women and children thronged to meet our troops and exchange greetings in French and English. Nor was their gratitude confined to demonstrations such as these. Wherever our men were billeted during their advance everything possible was done for their comfort. In many cases refreshment was pressed upon them without payment and on all sides despite the shortage of food from which the occupied districts of Belgium had long suffered, the generosity of the civil population found means to supplement the rations of our troops.

During this period large numbers of released prisoners of war, French and British, came through our lines and were passed back to collecting stations. The enemy seems to have liberated the majority of the Allied prisoners west of the Rhine without making any provision for their feeding and conveyance. The result was that much unnecessary suffering was caused to these unfortunate individuals, while a not inconsiderable additional burden was placed upon our own transport and supplies.

*Supply Difficulties.*

(4) Throughout the whole of the advance, and especially in the stage which followed the crossing of the German frontier, very great, but unavoidable, difficulties were encountered in connection with supply.

At the time of the armistice railheads were on the general line Le Cateau, Valenciennes,

* Not reproduced.

Lille, Courtrai, and for many miles in front of them bridges had been broken and track torn up or destroyed by mines. Even after the cessation of hostilities delay action mines, which the enemy had laid in the course of his retreat without preserving exact record of their location, went up from time to time, causing serious interruption to traffic. The clearing of these mines was a work of considerable risk, and the fact that comparatively so few mines exploded after trains had begun to run is entirely due to the great courage and skill with which officers, non-commissioned officers and men of the Tunnelling Companies performed the difficult and dangerous task of detecting them and rendering them harmless. The work of reconstruction, therefore, was most arduous, continuing day and night. The speed with which it was completed reflects great credit upon all ranks of the British Railway Companies and the Canadian Railway Troops Corps, as well as on the Railway Construction Engineers who controlled their work. Credit is due also to the personnel of the Railway Operating Division, who were called upon to keep traffic open with scarcely any of the ordinary traffic facilities.

Though roads had been pushed farther ahead, the same general conditions applied to them, while the extraordinary amount of traffic which it was necessary to direct along them made maintenance very difficult. Up to the night of the 25/26th November, on which date the railway was carried across the gap between Valenciennes and Mons, the Corps of the Second Army were still based on the railheads west of the River Scheldt, and supplies had to be brought forward by double and treble echelons of lorries. At the close of this period divisions were being fed by means of narrow one-way roads at distances of from 80 to 100 miles from their railheads. This imposed a great strain on the personnel of the Motor Transport Units and Mobile Repair Shops, who were compelled to work long hours under very trying and anxious conditions. I am glad to express my deep appreciation of the devoted service rendered by all ranks.

Until roads and railways could be got through to the areas which the enemy had not damaged the progress of our troops was necessarily limited by our ability to supply them. Only by the greatest effort on the part of the departments concerned with reconstruction and supply, and at the expense of considerable hardship to the leading troops of the Fourth and Second Armies, and in particular the cavalry, could the programme of our advance be maintained. Troops were denied frequently and for long periods comforts which they had been accustomed to obtain even under battle conditions. Nothing beyond bare necessities could be got forward to them. Even these were at times short in some units, and on more than one occasion the only available supplies of food were the current day's issues carried on the man.

Many other causes conspired to render the problem of supply one of serious difficulty throughout our advance. At the date of the armistice the amount of available rolling stock had been no more than sufficient to meet the requirements of our Armies. The advance to the Rhine added over 200 miles to the distances to be covered, and greatly reduced the amount of rolling stock available by largely increasing the time required for each train to complete its journey. The necessity for supplying the civil population of the territories through which the Allied Armies were advancing and the resumption of French civilian traffic put an additional strain upon our pooled resources. This strain was not met by rolling stock taken over from the enemy, which came in very slowly, and was much of it unfit for immediate service.

In this connection it is not out of place to refer to the work done by the British Army in providing food and medical attendance for the civil population of the liberated districts through which we passed, a population which in France alone amounted to nearly 800,000 persons. This duty, though very willingly accepted by us, none the less made no small demands upon both rail and road transport. In France it entailed the supply and distribution of more than 5,000,000 rations during a period exceeding six weeks, until the French were able to complete their arrangements for relieving us of the task. The service we were able to render in the name of humanity has been most generously acknowledged by the French Authorities.

The fulfilment of our programme under such conditions would have been impossible without the exercise of great patience and whole-hearted co-operation on the part of the troops. Nor was it less dependent upon the untiring energy and efficiency displayed by commanders and staffs in the methodical arrangement of the details of our advance and the concentration of our resources. I desire to place on record my appreciation of the careful forethought of the Staff and of the excellent conduct of all ranks under very trying conditions.

It will readily be understood from the foregoing that had our advance been conducted against active opposition, even from a beaten and demoralised enemy, our progress must have been greatly delayed. The difficulties of supply would have been enormously increased in many ways, among which would have been the necessity of bringing forward large quantities of ammunition. Bridges, railways and roads would have been destroyed in front of us or blown up after we had passed, by delay-action mines. Immense loss would have been caused to property of all descriptions and incalculable suffering inflicted upon the inhabitants of the invaded districts of Belgium, France and Luxembourg.

*Further Re-adjustment of Troops.*

(5) Towards the close of the advance to the German frontier, a further re-adjustment was effected in the disposition of my troops.

The sector allotted to the British Forces in the general scheme for the occupation of the Rhine Provinces was too narrow to admit of the employment of more than a single Army Command. I therefore directed that the German territory to be occupied by us should be held by General Plumer's Second Army, which for this purpose should be composed as follows:—The II Corps (9th, 29th and New Zealand Divisions), the VI Corps (Guards, 2nd and 3rd Divisions), the IX Corps (1st, 6th and 62nd Divisions), the Canadian Corps (1st and 2nd Canadian Divisions), and the 1st Cavalry Division. The various changes and transfers necessary to give effect to this arrangement involved the taking over by the Second Army of the whole of the British front of advance, and the gradual withdrawal of the troops of the

Fourth Army to the area west of the frontier and about Namur.

*The Advance into Germany.*

(6) On the morning of the 1st December, a date for ever memorable as witnessing the consummation of the hopes and efforts of 4½ years of heroic fighting, the 1st Cavalry Division crossed the frontier between Belgium and Germany. On the same day the 2nd and 1st Canadian Divisions of the Canadian Corps and the 29th and 9th Divisions of the II Corps resumed their march towards the frontier.

On this date, however, the supply situation became critical, trains due on the 30th November failing to arrive until the night of the 1st/2nd December. In consequence for two days the Army remained practically stationary, and it was not until the 4th December that progress was resumed.

In this stage of our march the line of our advance traversed the northern portion of the Ardennes, and, particularly on the right in the Canadian Corps area, the country through which our troops were passing was of a most difficult character. Practicable roads were few, villages were far apart, and facilities for billeting very limited. Our way lay across a country of great hills rising to over 2,000 feet, covered by wide stretches of forest, and cut by deep and narrow valleys, along the steep sides of which the roads wound in countless sudden curves. Marches were long, while the surface of the roads which had already borne the traffic of the retreating German Armies suffered anew under the passage of our columns. Even under conditions approximating to those of peace, severe demands were made upon the spirit and endurance of the troops.

*British Troops in Cologne.*

(7) On the 6th December, in response to a request previously made by the German authorities, and in order that the town might not be left without troops after the withdrawal of the enemy's military forces, the 2nd Brigade of the 1st Cavalry Division was sent forward to Cologne. A detachment of armoured cars of the 17th (A.C.) Battalion, Tank Corps, escorted the General Officer Commanding 1st Cavalry Division into Cologne, and thereafter picketed the bridges, being the first British troops to cross the Rhine. A great concourse of people thronged the streets of the city to watch the arrival of our troops. Next day, the 28th Infantry Brigade of the 9th Division arrived at Cologne by rail, and on the 8th December the 1st Cavalry Division reached the Rhine on the whole British front, securing the crossings of the river.

While during the following days our infantry continued their movement, on the 11th December the Military Governor, Lieut.-General Sir Charles Fergusson, arrived by train at Cologne. Accompanied by an escort of the 9th Lancers, he proceeded through crowded streets to the Hotel Monopol, where he took up the duties of his office. As the Military Governor reached the entrance to the hotel, the Union Jack was hoisted above the building and floated out for the first time over the roof-tops of the city.

*The Occupation of the Cologne Bridgehead.*

(8) On the 12th December, the day fixed for that event by the general scheme of advance, the 1st Cavalry Division crossed the Rhine and commenced the occupation of the Cologne Bridgehead, the perimeter of which they reached on the following day.

On the 13th December the 2nd and 1st Canadian Divisions and the 29th and 9th Divisions of the Canadian and II Corps passed across the Rhine at Cologne and Bonn respectively in four columns, each of the strength of a division. During the following three days they pushed forward to the bridgehead perimeter, gradually relieving the cavalry, and by the evening of the 16th December had completed the occupation of the bridgehead.

Before Christmas Day the troops of the Second Army had reached their final areas in the occupied territories of Germany. The military organisation of the bridgehead, so as to secure the crossing of the Rhine and render possible the rapid deployment of troops for action east of it, had been commenced, and was proceeded with steadily during the remainder of the year. In the course of this work, on the 28th December the perimeter of the bridgehead was slightly amended (vide attached map),* so as to accord with the boundaries of the German Communal Districts and thus simplify the work of administration.

*Conduct of the Troops.*

(9) In concluding this part of my Despatch, I desire to acknowledge with gratitude and pride the exemplary conduct of the troops, both throughout the different stages of their arduous advance and since its successful completion.

Among all services and in all Armies, both those which took part in the advance and those which remained behind, the period following the armistice has indeed been one of no little difficulty. For those that went forward, the real hardships of the long marches, poor billets, and indifferent food constituted a strange contrast to ideas which had been formed of victory. For all, the sudden relaxation of the enduring tension of battle, and the natural desire of the great majority for an early return to civil life, could not but lead at times to a certain impatience with delays, and with the continuance, under conditions of apparent peace, of restrictions and routine duties gladly borne while the future of their country was at stake. Despite these disturbing factors, and the novelty of finding themselves masters in a conquered country, instances of misbehaviour have been remarkably few, and chiefly of a minor character. The inborn courtesy and good temper of the British soldier have guided them in their attitude towards the inhabitants of the occupied districts. The spreading of a better understanding of the causes of the temporary shortage of supplies, of the difficulties of demobilisation and of the continued necessity for keeping a strong Army in the field, has generally dispelled any incipient feelings of discontent.

The discipline, self-respect and strong sense of responsibility which carried our men through to victory, have in general been fully maintained amid changed conditions and new surroundings.

## PART II.

### FEATURES OF THE WAR.

*A Single Great Battle.*

(10) In this, my final Despatch, I think it desirable to comment briefly upon certain

* Not reproduced.

general features which concern the whole series of operations carried out under my command. I am urged thereto by the conviction that neither the course of the war itself nor the military lessons to be drawn therefrom can properly be comprehended, unless the long succession of battles commenced on the Somme in 1916 and ended in November of last year on the Sambre are viewed as forming part of one great and continuous engagement.

To direct attention to any single phase of that stupendous and incessant struggle and seek in it the explanation of our success, to the exclusion or neglect of other phases possibly less striking in their immediate or obvious consequences is, in my opinion, to risk the formation of unsound doctrines regarding the character and requirements of modern war.

If the operations of the past 4½ years are regarded as a single continuous campaign, there can be recognised in them the same general features and the same necessary stages which between forces of approximately equal strength have marked all the conclusive battles of history. There is in the first instance the preliminary stage of the campaign in which the opposing forces seek to deploy and manœuvre for position, endeavouring while doing so to gain some early advantage which might be pushed home to quick decision. This phase came to an end in the present war with the creation of continuous trench lines from the Swiss frontier to the sea.

Battle having been joined, there follows the period of real struggle in which the main forces of the two belligerent Armies are pitted against each other in close and costly combat. Each commander seeks to wear down the power of resistance of his opponent and to pin him to his position, while preserving or accumulating in his own hands a powerful reserve force with which he can manœuvre, and, when signs of the enemy becoming morally and physically weakened are observed, deliver the decisive attack. The greatest possible pressure against the enemy's whole front must be maintained, especially when the crisis of the battle approaches. Then every man, horse and gun is required to co-operate, so as to complete the enemy's overthrow and exploit success.

In the stage of the wearing out struggle losses will necessarily be heavy on both sides, for in it the price of victory is paid. If the opposing forces are approximately equal in numbers, in courage, in moral and in equipment, there is no way of avoiding payment of the price or of eliminating this phase of the struggle.

In former battles this stage of the conflict has rarely lasted more than a few days, and has often been completed in a few hours. When Armies of millions are engaged, with the resources of great Empires behind them, it will inevitably be long. It will include violent crises of fighting which, when viewed separately and apart from the general perspective, will appear individually as great indecisive battles. To this stage belong the great engagements of 1916 and 1917 which wore down the strength of the German Armies.

Finally, whether from the superior fighting ability and leadership of one of the belligerents, as the result of greater resources or tenacity, or by reason of higher moral, or from a combination of all these causes, the time will come when the other side will begin to weaken and the climax of the battle is reached. Then the commander of the weaker side must choose whether he will break off the engagement, if he can, while there is yet time, or stake on a supreme effort what reserves remain to him. The launching and destruction of Napoleon's last reserves at Waterloo was a matter of minutes. In this World War the great sortie of the beleaguered German Armies, commenced on the 21st March, 1918, lasted for four months, yet it represents a corresponding stage in a single colossal battle.

The breaking down of such a supreme effort will be the signal for the commander of the successful side to develop his greatest strength and seek to turn to immediate account the loss in material and moral which their failure must inevitably produce among his opponent's troops. In a battle joined and decided in the course of a few days or hours, there is no risk that the lay observer will seek to distinguish the culminating operations by which victory is seized and exploited from the preceding stages by which it has been made possible and determined. If the whole operations of the present war are regarded in correct perspective the victories of the summer and autumn of 1918 will be seen to be as directly dependent upon the two years of stubborn fighting that preceded them.

*The Length of the War.*

(11) If the causes which determined the length of the recent contest are examined in the light of the accepted principles of war, it will be seen that the duration of the struggle was governed by and bore a direct relation to certain definite factors which are enumerated below.

In the first place, we were unprepared for war, or at any rate for a war of such magnitude. We were deficient in both trained men and military material, and, what was more important, had no machinery ready by which either men or material could be produced in anything approaching the requisite quantities. The consequences were two-fold. Firstly, the necessary machinery had to be improvised hurriedly, and improvisation is never economical and seldom satisfactory. In this case the high-water mark of our fighting strength in infantry was only reached after 2½ years of conflict, by which time heavy casualties had already been incurred. In consequence, the full man power of the Empire was never developed in the field at any period of the war.

As regards material, it was not until midsummer, 1916, that the artillery situation became even approximately adequate to the conduct of major operations. Throughout the Somme battle the expenditure of artillery ammunition had to be watched with the greatest care. During the battles of 1917, ammunition was plentiful, but the gun situation was a source of constant anxiety. Only in 1918 was it possible to conduct artillery operations independently of any limiting consideration other than that of transport.

The second consequence of our unpreparedness was that our Armies were unable to intervene, either at the outset of the war or until nearly two years had elapsed, in sufficient strength adequately to assist our Allies. The enemy was able to gain a notable initial advantage by establishing himself in Belgium and northern France, and throughout the early stages of the war was free to concentrate an undue proportion of his effectives against

France and Russia. The excessive burden thrown upon the gallant Army of France during this period caused them losses, the effect of which has been felt all through the war and directly influenced its length. Just as at no time were we as an Empire able to put our own full strength into the field, so at no time were the Allies as a whole able completely to develop and obtain the full effect from their greatly superior man power. What might have been the effect of British intervention on a larger scale in the earlier stages of the war is shown by what was actually achieved by our original Expeditionary Force.

It is interesting to note that in previous campaigns the side which has been fully prepared for war has almost invariably gained a rapid and complete success over its less well prepared opponent. In 1866 and 1870, Austria and then France were overwhelmed at the outset by means of superior preparation. The initial advantages derived therefrom were followed up by such vigorous and ruthless action, regardless of loss, that there was no time to recover from the first stunning blows. The German plan of campaign in the present war was undoubtedly based on similar principles. The margin by which the German onrush in 1914 was stemmed was so narrow and the subsequent struggle so severe that the word "miraculous" is hardly too strong a term to describe the recovery and ultimate victory of the Allies.

A further cause adversely influencing the duration of the war on the Western front during its later stages, and one following indirectly from that just stated, was the situation in other theatres. The military strength of Russia broke down in 1917 at a critical period when, had she been able to carry out her military engagements, the war might have been shortened by a year. At a later date, the military situation in Italy in the autumn of 1917 necessitated the transfer of five British divisions from France to Italy at a time when their presence in France might have had far-reaching effects.

Thirdly, the Allies were handicapped in their task and the war thereby lengthened by the inherent difficulties always associated with the combined action of Armies of separate nationalities, differing in speech and temperament, and, not least important, in military organisation, equipment and supply.

Finally, as indicated in the opening paragraph of this part of my Despatch, the huge numbers of men engaged on either side, whereby a continuous battle front was rapidly established from Switzerland to the sea, outflanking was made impossible and manœuvre very difficult, necessitated the delivery of frontal attacks. This factor, combined with the strength of the defensive under modern conditions, rendered a protracted wearing out battle unavoidable before the enemy's power of resistance could be overcome. So long as the opposing forces are at the outset approximately equal in numbers and moral and there are no flanks to turn, a long struggle for supremacy is inevitable.

*The Extent of our Casualties.*

(12) Obviously, the greater the length of a war the higher is likely to be the number of casualties incurred in it on either side. The same causes, therefore, which served to protract the recent struggle are largely responsible for the extent of our casualties. There can be no question that to our general unpreparedness must be attributed the loss of many thousands of brave men whose sacrifice we deeply deplore, while we regard their splendid gallantry and self-devotion with unstinted admiration and gratitude.

Given, however, the military situation existing in August, 1914, our total losses in the war have been no larger than were to be expected. Neither do they compare unfavourably with those of any other of the belligerent nations, so far as figures are available from which comparison can be made. The total British casualties in all theatres of war, killed, wounded, missing and prisoners, including native troops, are approximately three millions (3,076,388). Of this total, some two and a half millions (2,568,834) were incurred on the Western front. The total French losses, killed, missing and prisoners, but exclusive of wounded, have been given officially as approximately 1,831,000. If an estimate for wounded is added, the total can scarcely be less than 4,800,000, and of this total it is fair to assume that over four millions were incurred on the Western front. The published figures for Italy, killed and wounded only, exclusive of prisoners, amount to 1,400,000, of which practically the whole were incurred in the Western theatre of war.

Figures have also been published for Germany and Austria. The total German casualties, killed, wounded, missing and prisoners, are given at approximately six and a half millions (6,485,000), of which the vastly greater proportion must have been incurred on the Western front, where the bulk of the German forces were concentrated and the hardest fighting took place. In view of the fact, however, that the number of German prisoners is definitely known to be considerably understated, these figures must be accepted with reserve. The losses of Austria-Hungary in killed, missing and prisoners are given as approximately two and three-quarter millions (2,772,000). An estimate of wounded would give a total of over four and a half millions.

The extent of our casualties, like the duration of the war, was dependent on certain definite factors which can be stated shortly.

In the first place, the military situation compelled us, particularly during the first portion of the war, to make great efforts before we had developed our full strength in the field or properly equipped and trained our Armies. These efforts were wasteful of men, but in the circumstances they could not be avoided. The only alternative was to do nothing and see our French Allies overwhelmed by the enemy's superior numbers.

During the second half of the war, and that part embracing the critical and costly period of the wearing-out battle, the losses previously suffered by our Allies laid upon the British Armies in France an increasing share in the burden of attack. From the opening of the Somme Battle in 1916 to the termination of hostilities the British Armies were subjected to a strain of the utmost severity which never ceased, and consequently had little or no opportunity for the rest and training they so greatly needed.

In addition to these particular considerations, certain general factors peculiar to modern war made for the inflation of losses. The great strength of modern field defences and the

power and precision of modern weapons, the multiplication of machine guns, trench mortars and artillery of all natures, the employment of gas and the rapid development of the aeroplane as a formidable agent of destruction against both men and material, all combined to increase the price to be paid for victory.

If only for these reasons, no comparisons can usefully be made between the relative losses incurred in this war and any previous war. There is, however, the further consideration that the issues involved in this stupendous struggle were far greater than those concerned in any other war in recent history. Our existence as an Empire and civilisation itself, as it is understood by the free Western nations, were at stake. Men fought as they have never fought before in masses.

Despite our own particular handicaps and the foregoing general considerations, it is satisfactory to note that, as the result of the courage and determination of our troops, and the high level of leadership generally maintained, our losses even in attack over the whole period of the battle compare favourably with those inflicted on our opponents. The approximate total of our battle casualties in all arms, and including Overseas troops, from the commencement of the Somme Battle in 1916 to the conclusion of the Armistice is 2,140,000. The calculation of German losses is obviously a matter of great difficulty. It is estimated, however, that the number of casualties inflicted on the enemy by British troops during the above period exceeds two and a half millions. It is of interest, moreover, in the light of the paragraph next following, that more than half the total casualties incurred by us in the fighting of 1918 were occasioned during the five months, March-July, when our Armies were on the defensive.

*Why we Attacked Whenever Possible.*

(13) Closely connected with the question of casualties is that of the relative values of attack and defence. It is a view often expressed that the attack is more expensive than defence. This is only a half statement of the truth. Unquestionably, unsuccessful attack is generally more expensive than defence, particularly if the attack is pressed home with courage and resolution. On the other hand, attack so pressed home, if skilfully conducted, is rarely unsuccessful, whereas in its later stages especially, unsuccessful defence is far more costly than attack.

Moreover, the object of all war is victory, and a purely defensive attitude can never bring about a successful decision, either in a battle or in a campaign. The idea that a war can be won by standing on the defensive and waiting for the enemy to attack is a dangerous fallacy, which owes its inception to the desire to evade the price of victory. It is an axiom that decisive success in battle can be gained only by a vigorous offensive. The principle here stated has long been recognised as being fundamental, and is based on the universal teaching of military history in all ages. The course of the present war has proved it to be correct.

To pass for a moment from the general to the particular, and consider in the light of the present war the facts upon which this axiom is based.

A defensive rôle sooner or later brings about a distinct lowering of the moral of the troops, who imagine that the enemy must be the better man, or at least more numerous, better equipped with and better served by artillery or other mechanical aids to victory. Once the mass of the defending infantry become possessed of such ideas, the battle is as good as lost. An Army fighting on enemy soil, especially if its standard of discipline is high, may maintain a successful defence for a protracted period, in the hope that victory may be gained elsewhere or that the enemy may tire or weaken in his resolution and accept a compromise. The resistance of the German armies was undoubtedly prolonged in this fashion, but in the end the persistence of our troops had its natural effect.

Further, a defensive policy involves the loss of the initiative, with all the consequent disadvantages to the defender. The enemy is able to choose at his own convenience the time and place of his attacks. Not being influenced himself by the threat of attack from his opponent, he can afford to take risks, and by greatly weakening his front in some places can concentrate an overwhelming force elsewhere with which to attack. The defender, on the other hand, becomes almost entirely ignorant of the dispositions and plans of his opponent, who is thus in a position to effect a surprise. This was clearly exemplified during the fighting of 1918. As long as the enemy was attacking, he obtained fairly full information regarding our dispositions. Captured documents show that, as soon as he was thrown once more on the defensive and the initiative returned to the Allies, he was kept in comparative ignorance of our plans and dispositions. The consequence was that the Allies were able to effect many surprises, both strategic and tactical.

As a further effect of the loss of the initiative and ignorance of his opponent's intentions, the defender finds it difficult to avoid a certain dispersal of his forces. Though for a variety of reasons, including the fact that we had lately been on the offensive, we were by no means entirely ignorant of the enemy's intentions in the spring of 1918, the unavoidable uncertainty resulting from a temporary loss of the initiative did have the effect of preventing a complete concentration of our reserves behind the point of the enemy's attack.

An additional reason, peculiar to the circumstances of the present war, which in itself compelled me to refuse to adopt a purely defensive attitude so long as any other was open to me, is to be found in the geographical position of our Armies. For reasons stated by me in my Despatch of the 20th July, 1918, we could not afford to give much ground on any part of our front. The experience of the war has shown that if the defence is to be maintained successfully, even for a limited time, it must be flexible.

*The End of the War.*

(14) If the views set out by me in the preceding paragraphs are accepted, it will be recognised that the war did not follow any unprecedented course, and that its end was neither sudden nor should it have been unexpected. The rapid collapse of Germany's military powers in the latter half of 1918 was the logical outcome of the fighting of the previous two years. It would not have taken place but for that period of ceaseless attrition which used up the reserves of the German Armies, while the constant and growing pressure of the blockade

sapped with more deadly insistence from year to year at the strength and resolution of the German people. It is in the great battles of 1916 and 1917 that we have to seek for the secret of our victory in 1918.

Doubtless, the end might have come sooner had we been able to develop the military resources of our Empire more rapidly and with a higher degree of concentration, or had not the defection of Russia in 1917 given our enemies a new lease of life.

So far as the military situation is concerned, in spite of the great accession of strength which Germany received as the result of the defection of Russia, the battles of 1916 and 1917 had so far weakened her Armies that the effort they made in 1918 was insufficient to secure victory. Moreover, the effect of the battles of 1916 and 1917 was not confined to loss of German man power. The moral effects of those battles were enormous, both in the German Army and in Germany. By their means our soldiers established over the German soldier a moral superiority which they held in an ever-increasing degree until the end of the war, even in the difficult days of March and April, 1918.

*The Value of Cavalry in Modern War.*

(15) From time to time as the war of position dragged on and the enemy's trench systems remained unbroken, while questions of man power and the shortage of shipping became acute, the wisdom or necessity of maintaining any large force of mounted men was freely discussed. In the light of the full experience of the war the decision to preserve the Cavalry Corps has been completely justified. It has been proved that cavalry, whether used for shock effect under suitable conditions or as mobile infantry, have still an indispensable part to play in modern war. Moreover, it cannot safely be assumed that in all future wars the flanks of the opposing forces will rest on neutral States or impassable obstacles. Whenever such a condition does not obtain opportunities for the use of cavalry must arise frequently.

Throughout the great retirement in 1914, our cavalry covered the retirement and protected the flanks of our columns against the onrush of the enemy, and on frequent occasions prevented our infantry from being overrun by the enemy's cavalry. Later in the same year at Ypres, their mobility multiplied their value as a reserve, enabling them rapidly to reinforce threatened portions of our line.

During the critical period of position warfare, when the trial of strength between the opposing forces took place, the absence of room to manœuvre made the importance of cavalry less apparent. Even under such conditions, however, valuable results may be expected from the employment of a strong force of cavalry when, after there has been severe fighting on one or more fronts, a surprise attack is made on another front. Such an occasion arose in the operations before Cambrai at the close of 1917, when the cavalry were of the greatest service; while throughout the whole period of trench fighting they constituted an important mobile reserve.

At a later date, when circumstances found us operating once more in comparatively open country, cavalry proved themselves of value in their true *rôle*. During the German offensive in March, 1918, the superior mobility of cavalry fully justified their existence. At the commencement of the battle, cavalry were used under the Fifth Army over wide fronts. So great, indeed, became the need for mounted men that certain units which had but recently been dismounted were hurriedly provided with horses and did splendid service. Frequently, when it was impossible to move forward other troops in time, our mounted troops were able to fill gaps in our line and restore the situation. The absence of hostile cavalry at this period was a marked feature of the battle. Had the German command had at their disposal even two or three well-trained cavalry divisions, a wedge might have been driven between the French and British Armies. Their presence could not have failed to have added greatly to the difficulties of our task.

In the actions already referred to east of Amiens, the cavalry were again able to demonstrate the great advantage which their power of rapid concentration gives them in a surprise attack. Operating in close concert with both armoured cars and infantry, they pushed ahead of the latter and by anticipating the arrival of German reserves assisted materially in our success. In the battle of the 8th October, they were responsible for saving the Cambrai—Le Cateau—St. Quentin Railway from complete destruction. Finally, during the culminating operations of the war when the German Armies were falling back in disorganised masses, a new situation arose which demanded the use of mounted troops. Then our cavalry, pressing hard upon the enemy's heels, hastened his retreat and threw him into worse confusion. At such a time the moral effect of cavalry is overwhelming and is in itself a sufficient reason for the retention of that arm.

On the morning of the Armistice, two British Cavalry Divisions were on the march east of the Scheldt, and before the orders to stop reached them they had already gained a line ten miles in front of our infantry outposts. There is no doubt that, had the advance of the cavalry been allowed to continue, the enemy's disorganised retreat would have been turned into a rout.

*The Value of Mechanical Contrivances.*

(16) A remarkable feature of the present war has been the number and variety of mechanical contrivances to which it has given birth, or has brought to a higher state of perfection.

Besides the great increase in mobility made possible by the development of motor transport, heavy artillery, trench mortars, machine guns, aeroplanes, tanks, gas and barbed wire have in their several spheres of action played very prominent parts in operations, and as a whole have given a greater driving power to war. The belligerent possessing a preponderence of such mechanical contrivances has found himself in a very favourable position as compared with his less well provided opponent. The general superiority of the Allies in this direction during the concluding stages of the recent struggle undoubtedly contributed powerfully to their success. In this respect the Army owes a great debt to science and to the distinguished scientific men who placed their learning and skill at the disposal of their country.

It should never be forgotten, however, that weapons of this character are incapable of effective independent action. They do not in themselves possess the power to obtain a decision, their real function being to assist the infantry to get to grips with their opponents.

To place in them a reliance out of proportion to their real utility, to imagine, for example, that tanks and aeroplanes can take the place of infantry and artillery, would be to do a disservice to those who have the future of these new weapons most at heart by robbing them of the power to use them to their best effect.

Every mechanical device so far produced is dependent for its most effective use upon the closest possible association with other arms, and in particular with infantry and artillery. Aeroplanes must rely upon infantry to prevent the enemy from overrunning their aerodromes, and, despite their increasing range and versatility of action, are clearly incapable in themselves of bringing about a decision. Tanks require the closest artillery support to enable them to reach their objectives without falling victims to the enemy's artillery, and are dependent upon the infantry to hold the position they have won.

As an instance of the interdependence of artillery and tanks, we may take the actions fought east of Amiens on the 8th August, 1918, and following days. A very large number of tanks were employed in these operations, and they carried out their tasks in the most brilliant manner. Yet a scrutiny of the artillery ammunition returns for this period discloses the fact that in no action of similar dimensions had the expenditure of ammunition been so great.

Immense as the influence of mechanical devices may be, they cannot by themselves decide a campaign. Their true *rôle* is that of assisting the infantryman, which they have done in a most admirable manner. They cannot replace him. Only by the rifle and bayonet of the infantryman can the decisive victory be won.

*Close and Complete Co-operation between all Arms and Services.*

(17) This war has given no new principles; but the different mechanical appliances above mentioned—and in particular the rapid improvement and multiplication of aeroplanes, the use of immense numbers of machine guns and Lewis guns, the employment of vast quantities of barbed wire as effective obstacles, the enormous expansion of artillery and the provision of great masses of motor transport—have introduced new problems of considerable complexity concerning the effective co-operation of the different arms and services. Much thought has had to be bestowed upon determining how new devices could be combined in the best manner with the machinery already working.

The development of the Air Service is a matter of general knowledge, and figures showing something of the work done by our airmen were included in my last Despatch. The combining of their operations with those of the other arms, and particularly of the artillery, has been the subject of constant study and experiment, giving results of the very highest value. As regards machine guns, from a proportion of one gun to approximately 500 infantrymen in 1914, our establishment of machine guns and Lewis guns had risen at the end of 1918 to one machine gun or Lewis gun to approximately 20 infantrymen. This great expansion was necessarily accompanied by a modification of training and methods both for attack and defence, and resulted ultimately in the establishment of the Machine Gun Corps under an Inspector-General.

During the same period, the growth of our artillery was even more remarkable, its numbers and power increasing out of all proportion to the experience of previous wars. The 486 pieces of light and medium artillery with which we took the field in August, 1914, were represented at the date of the Armistice by 6,437 guns and howitzers of all natures, including pieces of the heaviest calibre.

This vast increase so profoundly influenced the employment of artillery and was accompanied by so intimate an association with other arms and services that it merits special comment.

In the first place, big changes were required in artillery organisation, as well as important decisions concerning the proportions in which the different natures of artillery and artillery ammunition should be manufactured. These changes and decisions were made during 1916, and resulted in the existing artillery organisation of the British Armies in France.

In order to gain the elasticity essential to the quick concentration of guns at the decisive point, to enable the best use to be made of them and to facilitate ammunition supply and fire control, Artillery Commanders, acting under Army and Corps Commanders, were introduced and Staffs provided for them. This enabled the large concentrations of guns required for our offensives to be quickly absorbed and efficiently directed. The proportions required of guns to howitzers and of the lighter to the heavier natures were determined by certain factors, namely, the problem of siting in the comparatively limited areas available the great numbers of pieces required for an offensive; the "lives" of the different types of guns and howitzers, that is the number of rounds which can be fired from them before they become unserviceable from wear, and questions of relative accuracy and fire effect upon particular kinds of targets.

The results attained by the organisation established in 1916 is in itself strong evidence of the soundness of the principles upon which it was based. It made possible a high degree of elasticity, and by the full and successful exploitation of all the means placed at its disposal by science and experience, ensured that the continuous artillery battle which began on the Somme should culminate, as it did, in the defeat of the enemy's guns.

The great development of air photography, sound ranging, flash spotting, air-burst ranging and aerial observation brought counter-battery work and harassing fire both by day and night to a high state of perfection. Special progress was made in the art of engaging moving targets with fire controlled by observation from aeroplanes and balloons. The work of the Field Survey Sections in the location of hostile battery positions by re-section and the employment of accurate maps was brought into extended use. In combination with the work of the Calibration Sections in the accurate calibration of guns and by careful calculation of corrections of range required to compensate for weather conditions, it became possible to a large extent to dispense with registration, whereby the chance of effecting surprise was greatly increased. In the operations east of Amiens on the 8th August, 1918, in which over 2,000 guns were employed, practically the whole of the batteries concentrated for the purpose of the attack opened fire for the first time on the actual morning of the assault.

The use of smoke shell for covering the advance of our infantry and masking the enemy's positions was introduced and employed with increasing frequency and effect. New forms of gas shell were made available, and their combination with the infantry attack carefully studied. The invention of a new fuze known as "106," which was first used in the battle of Arras, 1917, enabled wire entanglements to be easily and quickly destroyed, and so modified our methods of attacking organised positions. By bursting the shell the instant it touched the ground and before it had become buried, the destructive effect of the explosion was greatly increased. It became possible to cut wire with a far less expenditure of time and ammunition, and the factor of surprise was given a larger part in operations.

Great attention was paid to the training of personnel, and in particular the Chapperton Down Artillery School, Salisbury Plain, was formed for training artillery brigade commanders and battery commanders, while Artillery Schools in France were organised for the training of subalterns and non-commissioned officers.

A short examination of our principal attacks will give a good idea of the increasing importance of artillery. On the first day of the Somme Battle of 1916 the number of artillery personnel engaged was equal to about half the infantry strength of the attacking divisions. On this one day a total of nearly 13,000 tons of artillery ammunition was fired by us on the Western front. Our attacks at Arras and Messines on the 9th April and 7th June, 1917, saw the total expenditure of artillery ammunition nearly doubled on the first days of those battles, while the proportion of artillery personnel to infantry steadily grew.

During the period following the opening of the Somme Battle, the predominance of our artillery over that of the enemy gradually increased, till at the time of the Arras Battle it had reached a maximum. In the course of the summer and autumn of 1917, however, the enemy constantly reinforced his artillery on our front, being enabled to do so owing to the relaxation of pressure elsewhere.

The battle of Ypres in the autumn of 1917 was one of intense struggle for artillery supremacy. By dint of reducing his artillery strength on other parts of the Western front, and by bringing guns from the East, the enemy definitely challenged the predominance of our artillery. In this battle, therefore, the proportion of our artillery to infantry strength was particularly large. In the opening attack on the 31st July our artillery personnel amounted to over 80 per cent. of the infantry engaged in the principal attack on our front, and our total expenditure of artillery ammunition on this day exceeded 23,000 tons. During the succeeding weeks the battle of the rival artilleries became ever more violent. On the two days 20th and 21st September, about 42,000 tons of artillery ammunition were expended by us, and in the successful attack of the 4th October, which gave us the main ridge about Broodseinde, our artillery personnel amounted to 85 per cent. of the infantry engaged in the assault.

During the winter of 1917-1918 the enemy so greatly added to his artillery strength by batteries brought from the Russian front that in his spring offensive he was able temporarily to effect a definite local artillery superiority. This state of affairs was short lived. Even before the breakdown of the German offensive, our guns had regained the upper hand. In the battles later in the year the superiority of our batteries once more grew rapidly, until the defeat of the German artillery became an accomplished fact. From the commencement of our offensive in August, 1918, to the conclusion of the Armistice, some 700,000 tons of artillery ammunition were expended by the British Armies on the Western front. For the fortnight from the 21st August-3rd September our average daily expenditure exceeded 11,000 tons, while for the three days of crucial battle on the 27th, 28th and 29th September nearly 65,000 tons of ammunition were fired by our artillery.

The tremendous growth of our artillery strength above described followed inevitably from the character of the wearing-out battle upon which we were engaged. The restricted opportunities for manœuvre and the necessity for frontal attacks made the employment of great masses of artillery essential.

The massing of guns alone, however, could not have secured success without the closest possible combination between our batteries and the infantry they were called upon to support, as well as with the other arms. The expansion was accompanied, therefore, by a constant endeavour to improve the knowledge of all ranks of both artillery and infantry and the air service concerning the work and possibilities of the other arms.

An intelligent understanding of "the other man's job" is the first essential of successful co-operation. To obtain the best results from the vast and complex machine composing a modern army, deep study of work other than one's own is necessary for all arms. For this study much time is needed, as well as much practical application of the principles evolved, and for reasons already explained, opportunity sufficient for adequate training could not be found. None the less, the best possible use was made of such opportunities as offered, and much was in fact accomplished.

### *The Signal Service.*

(18) As a natural corollary to the general increase of our Forces, the Signal Service, required alike for the proper co-ordination of supply and for the direction and control of the battle, has grown almost out of recognition. From an original establishment of under 2,400 officers and men, trained and equipped chiefly for mobile warfare, at the end of 1918 the personnel of the Signal Service had risen to 42,000, fully equipped with all the latest devices of modern science to act efficiently under all conditions as the nervous system to the whole vast organism of our Army.

The commencement of trench warfare and the greater use of artillery led to a rapid development of the signal system which as fresh units were introduced became more and more elaborate. At the same time, the increase in the power and range of artillery made the maintenance of communications constantly more difficult. Many miles of deep trenches were dug in which cables containing 50 to 100 circuits were buried to gain protection from shell fire. The use of wireless communication gradually became more widely spread and finally constituted part of the Signal establishment of all formations down to divisions. To

provide an alternative method of communication with front line troops, in 1915 carrier pigeons were introduced and a special branch of the Signal Service was formed controlling ultimately some 20,000 birds. In 1917 a Messenger Dog Service was started for similar purposes and did good work on a number of occasions.

The expansion of the work of the Signal Service in the more forward areas was accompanied by a similar development on the Lines of Communication, at General Headquarters, Armies and Corps. Construction and Railway Companies were formed and about 1,500 miles of main telegraph and telephone routes constructed in the Lines of Communication area alone, in addition to many miles in Army areas. Provision had to be made for communicating with London, Paris and Marseilles, as well as between the different Allied Headquarters. On the advance of our forces to the Rhine telephone communication was established between General Headquarters at Montreuil and Cologne. Signal communication entailing the putting up of many thousands of miles of wire was provided also for the control of railway traffic, while to supplement electric communication generally a Despatch Rider Letter Service was maintained by motor cyclists.

The amount of Signal Traffic dealt with became very great, and on the Lines of Communication alone more than 23,000 telegrams have been transmitted in twenty-four hours. Similarly, at General Headquarters as many as 9,000 telegrams have been dealt with in twenty-four hours, besides 3,400 letters carried by Despatch Rider; an Army Headquarters has handled 10,000 telegrams and 5,000 letters in the same space of time, and a Corps 4,500 telegrams and 3,000 letters. In addition to telegrams and letters, there has been at all times a great volume of telephone traffic.

Something of the extent of the constructional work required, in particular to meet the constant changes of the battle line and the movement of Headquarters, can be gathered from the fact that as many as 6,500 miles of field cable have been issued in a single week. The average weekly issue of such cable for the whole of 1918 was approximately 3,300 miles.

*Rearward Services and Personnel; Transportation.*

(19) The immense expansion of the Army from 6 to over 60 infantry divisions, combined with the constant multiplication of auxiliary arms, called inevitably for a large increase in the size and scope of the services concerned in the supply and maintenance of our fighting forces.

As the Army grew and became more complicated the total feeding strength of our forces in France rose until it approached a total of 2,700,000 men. The vastness of the figures involved in providing for their needs will be realised from the following examples. For the maintenance of a single division for one day, nearly 200 tons dead weight of supplies and stores are needed, representing a shipping tonnage of nearly 450 tons. In an Army of 2,700,000 men, the addition of one ounce to each man's daily rations involves the carrying of an extra 75 tons of goods.

To cope with so great a growth, the number of existing directorates had gradually to be added to or their duties extended, with a corresponding increase in demands for personnel. The supervision of ports was entrusted to the Directorate of Docks which controlled special companies for the transhipping of stores. By the end of November, 1918, the number of individual landings in France at the various ports managed by us exceeded 10½ million persons. During the 11 months January to November, 1918, the tonnage landed at these ports averaged some 175,000 tons per week.

To the Directorate of Transport, originally concerned with the administration of horse vehicles and pack animals, fell the further duty of exploiting mechanical road traction. Despite the employment of over 46,700 motor vehicles, including over 30,000 lorries, the number of horses and mules rose greatly, reaching a figure exceeding 400,000. The replacement, training and distribution of these animals was the duty of the Directorate of Remounts. The Directorate of Veterinary Services reduced losses and prevented the spread of disease, while the Inspector of Horse Feeding and Economies ensured that the utmost value was obtained from the forage and grain consumed.

To meet the requirements of mechanical and horse traffic, the upkeep or construction of a maximum of some 4,500 miles of roadway was entrusted to the Directorate of Roads. Some idea of the work involved may be obtained from the fact that for ordinary upkeep alone 100 tons of road material are required per fortnight for the maintenance of one mile of road. Under this Directorate were organised a number of Road Construction Companies, together with Quarry Companies to supply the necessary metal. In the month of October, 1918, over 85,000 tons of road material were conveyed weekly by motor transport alone, involving a petrol mileage of over 14,000,000 weekly. The total output of stone from the commencement of 1918 to the date of the Armistice amounted to some 3,500,000 tons.

For the working of the existing railways and for the construction or repair of many miles of track, both normal and narrow gauge, railway troops of every description, Operating Companies, Construction Companies, Survey and Reconnaissance Companies, Engine Crew Companies, Workshop Companies, Wagon Erecting Companies and Light Railway Forward Companies had to be provided. Under the Directorate of Railway Traffic, the Directorate of Construction, and the Directorate of Light Railways, these and other technical troops during 1918 built or reconstructed 2,340 miles of broad gauge and 1,348 miles of narrow gauge railway. Throughout the whole period of their operation they guaranteed the smooth and efficient working of the railway system. In the six months May to October, 1918, a weekly average of 1,800 trains were run for British Army traffic, carrying a weekly average load of approximately 400,000 tons, while a further 130,000 tons were carried weekly by our light railways. The number of locomotives imported to deal with this traffic rose from 62 in 1916 to over 1,200 by the end of 1918, while the number of trucks rose from 3,840 to 52,600.

The Inland Water Transport section were organised under a separate Directorate for the working in France and Flanders of the canal and cross-channel barge traffic. On Inland waterways alone an average of 56,000 tons of material were carried weekly during 1918, the extent of waterways worked by us at the date of the Armistice being some 465 miles.

The wonderful development of all methods of transportation had an important influence upon the course of events. No war has been

fought with such ample means of quick transportation as were available during the recent struggle. Despite the huge increase in the size of Armies, it was possible to effect great concentrations of troops with a speed which, having regard to the numbers of men and bulk of material moved, has never before been equalled. Strategic and tactical mobility has been the guiding principle of our transportation arrangements; but this was itself at all times vitally affected by questions of supply and by the necessity of providing for the evacuation and replacement on a vast scale of the sick and wounded.

The successful co-ordination and economic use of all the various kinds of transportation requires most systematic management, based on deep thought and previous experience. So great was the work entailed in the handling of the vast quantities of which some few examples are given above, so complex did the machinery of transport become and so important was it that the highest state of efficiency should be maintained, that in the autumn of 1916 I was forced to adopt an entirely new system for running our Lines of Communication. The appointment of Inspector General of Communications was abolished, and the services previously directed by that Officer were brought under the immediate control of the Adjutant-General, the Quartermaster-General and the Director-General of Transportation. The last mentioned was a new office created with a separate Staff composed for the greater part of civilian experts to deal specifically with transportation questions. At the same time, the command and administration of the troops on the Lines of Communication were vested in a "General Officer Commanding the Lines of Communication Area."

The huge bulk of the supplies to be handled was due not merely to the size of our Army. It arose also from the introduction of new weapons and methods of war, and from the establishment of a higher standard of comfort for the troops. The incessant demands of the fighting forces for munitions were supplied by the Directorate of Ordnance Services, combined with a great expansion of Ordnance Workshops; while the Directorate of Engineering Stores provided on a vast scale the materials required for the construction of trench defences and kindred purposes. For the comfort and well being of the troops, the Directorate of Supplies stored and distributed in sound condition fresh food, to take the place as far as possible of tinned rations. Through the agency of an Inspectorate of Messing and Economies, regular schools of cookery gave instruction to nearly 25,000 cooks, and careful measures were taken for the recovery of kitchen by-products. In August, 1918, over 860,000 lb. of dripping were received from Armies and consigned to England, while the cash value of the by-products disposed of from all sources has exceeded £60,000 in a single month. Provision was made for baths, and a new Inspectorate supervised the running of Army laundries on up-to-date lines.

The Expeditionary Force Canteens made it possible to obtain additional comforts close up to the front. During 1918, the value of the weekly sales in the different canteens averaged 8½ million francs. These canteens were valuably supplemented by the various voluntary institutions ministering to the comfort and recreation of our troops, such as the Y.M.C.A., the Church Army, the Scottish Churches Huts, the Salvation Army, the Soldiers' Christian Association, the Catholic Women's League and Club Huts, the United Army and Navy Board, the Wesleyan Soldiers' Institute and the British Soldiers' Institute. In many cases these organisations carried on their work almost in the actual fighting line and did much to maintain the high moral of our Armies. To permit the troops to avail themselves of the opportunities so offered, methods devised by the Paymaster-in-Chief enabled soldiers to obtain money anywhere in the Field. Parcels and letters from home have been delivered by the Army Postal Service with remarkable regularity.

As the effects of the enemy submarine warfare began to be felt and the shortage of shipping became more and more acute, so it became increasingly necessary for the Army in France to be more self-supporting. To meet this emergency vast hospitals and convalescent depôts capable of accommodating over 22,000 men were erected west of the Seine at Trouville. Additional General Hospitals with accommodation for over 7,000 patients were established in the neighbourhood of Boulogne, Etaples, and elsewhere. Between January, 1916, and November, 1918, the total capacity of hospitals and convalescent depôts in France grew from under 44,000 to over 157,000 persons.

Great installations were set up for the manufacture of gun parts and articles of like nature, for the repair of damaged material as well as for the utilisation of the vast quantities of articles of all kinds collected from the battle fields by the organisation working under the direction of the Controller of Salvage. The Forestry Directorate, controlling over 70 Canadian and other Forestry Companies, worked forests all over France, in the North-West, Central and South-West Departments, the Vosges, Jura and Bordeaux country. As the result of its work our Armies were made practically independent of overseas imported timber. The Directorate of Agricultural Production organised farm and garden enterprises for the local supply of vegetables, harvested the crops abandoned by the enemy in his retreat and commenced the reclamation of the devastated area.

At the same time, a great saving of shipping was effected by the speeding up of work at the docks. The average tonnage discharged per hour in port rose from 12½ tons in January, 1917, to 34½ tons in July, 1918; while the average number of days lost by ships waiting berth at the ports fell from some 90 ship days per week at the beginning of 1917 to about 9 ship days per week in 1918.

For the accommodation of so wide a range of services, installations of all kinds, hutments, factories, workshops, storage for ammunition, clothing, meat and petrol, power houses and pumping stations, camps and hospitals, had to be planned and constructed by the Directorate of Works. Our business relations with the French, the obtaining of sites and buildings, called for the establishment of a Directorate of Hirings and Requisitions; while my Financial Adviser in France assisted in the adjustment of financial questions connected with the use of French railways and harbours, the exploitation of French forests and similar matters. The safe-guarding from fire of the great number of buildings erected or taken over by us and of the

masses of accumulated stores was entrusted to a definite Staff under the supervision of a Fire Expert.

The creation and maintenance of the great organisation briefly outlined above made big demands upon our available supply of personnel. Though these demands so far as possible were met, under the supervision of the Controller of Labour, by imported labour or prisoners of war, it was not practicable at any time to supply more than a proportion of our needs in this manner. Many fit men who might otherwise have reinforced the fighting line had also to be employed, especially during the earlier stages of the war.

As, however, our organisation arrived at a greater state of completion and its working became smooth, so it began to be possible to withdraw considerable numbers of fit men from the rearward services. In many cases it was possible, where replacement was necessary, to fill the places of the fit men so withdrawn by women or unfit men. In this way when the man-power situation became acute a considerable saving was effected. During the great British attacks of 1918, of a total male feeding strength of a little over $2\frac{1}{4}$ millions, $1\frac{1}{2}$ millions were in front of railhead. Even so, as has been found to be the case in the Armies of all other belligerents, so in our Army the number of fit men employed in the rearward services has at all times been large, and necessarily so.

It is hardly too much to assert that, however seemingly extravagant in men and money, no system of supply except the most perfect should ever be contemplated. To give a single example, unless our supply services had been fully efficient the great advance carried out by our Armies during the autumn of last year could not have been achieved.

Wars may be won or lost by the standard of health and moral of the opposing forces. Moral depends to a very large extent upon the feeding and general well being of the troops. Badly supplied troops will invariably be low in moral and an Army ravaged by disease ceases to be a fighting force. The feeding and health of the fighting forces are dependent upon the rearward services, and so it may be argued that with the rearward services rests victory or defeat. In our case we can justly say that our supply system has been developed into one of the most perfect in the world.

*Replacement, Discipline and Welfare of the Troops.*

(20) The preceding paragraph illustrates the demands which the conduct of operations made on the Staff and Directorates controlled by the Quartermaster General. The parallel development of the Adjutant General's Branch, while concerned with matters less patent to the casual observer has been no less remarkable. The problem of ensuring the supply of reinforcements at the times and places at which they will be required to replace casualties is present in all warfare, and is difficult in any circumstances. In operations conducted on the scale reached in this war it is exceedingly intricate. The successful solution of this problem alone entitles the Adjutant General and his Staff to the greatest credit. It has formed, however, but a small part of their work.

Owing to the impossibility of foretelling what claims would be made on man-power by industry or by other theatres of war, it was necessary to prepare elaborate forecasts of the personnel likely to be required at various future dates, and to work out in advance the best manner of utilising reinforcements in the event of their being available in greater or less numbers. We were faced with an unexpected contraction in man-power in the winter of 1917 and an unexpected expansion in the summer of 1918. Both these developments were encountered with a success which could only have been attained by the greatest forethought and application on the part of the Staff concerned.

To reduce to cadre a depleted Division, to fill it up when men became available, to break up a battalion and redistribute its personnel, to comb out a certain number of fit men from the rearward services, all sound simple operations. In reality each requires an immense amount of sympathetic treatment and clerical labour, the extent of the work involved being instanced by the fact that in the month of April, 1918, over 200,000 reinforcements were sent up to the fighting forces. The carrying out of measures of this nature was made more difficult by the continual formation of new types of unit to meet new requirements. It was necessary to find the personnel for those units with the least possible dislocation elsewhere, and with an eye to the most advantageous employment of the individual in regard to his medical category and special qualifications. The following figures will give some indication of the magnitude of the task. The Adjutant General's office at the Base has prepared over 8 million records containing the military history of individual soldiers in France, and has received and despatched over 22 million letters.

Whatever the quality of the troops, a just and efficient administration of military law is an indispensable adjunct to a high standard of discipline. I gratefully acknowledge the care with which officers of the Adjutant General's Branch in all formations have ensured the observation of every safeguard which our law provides against injustice. They have seen to it that every plea which an accused or convicted soldier wishes to bring forward is heard, and that Commanders are advised as to the suitability of sentences. I take this opportunity of recording my satisfaction at the success which has attended the operation of the Suspension of Sentences Act. The number of men under suspended sentence who by good conduct and gallant service in the field have earned remission of their sentence has been most encouraging.

Closely related to the administration of military law is the work of the military police under the Provost Marshal, and of the military prisons in the field. In the battle zone, where frequently they had to do duty in exposed positions under heavy fire and suffered severe casualties, the military police solved an important part of the problem of traffic control, by preventing the unavoidable congestion of troops and transport on roads in the vicinity of active operations from degenerating into confusion. In back areas, their vigilance and zeal have largely contributed to the good relations maintained between our troops and the civilian population.

Although the number of soldiers undergoing sentences of imprisonment in France has at no time amounted to 1 per thousand, the size of the Army has necessitated a considerable expansion of the Military Prisons in the field. The Director of Military Prisons, his Governors and warders have sought, not retribution, but

to build up the self-discipline of the prisoner. They have been rewarded by seeing a large percentage of the men committed to their charge subsequently recover their characters as good soldiers.

Under the general control of the Adjutant-General, the Base Stationery Depôt, which went to France in 1914 with a personnel of ten, has expanded into the Directorate of Army Printing and Stationery Services, employing over 60 officers and 850 other ranks. In addition to the printing and distribution or orders and instructions, it undertook the reproduction on a vast scale of aerial and other photographs, the number of which grew from 25,000 in 1916 to two and a quarter million in 1918. Other examples of administrative success are the Prisoners of War Section, and the Directorate of Graves Registration and Enquiries.

Of the care taken for the physical and moral welfare of the troops I cannot speak too highly.

In the former domain, the achievements of the Director-General of Medical Services and his subordinates have been so fully recorded by me in previous despatches that they need no further emphasis. It is sufficient to say that, in spite of the numbers dealt with, there has been no war in which the resources of science have been utilised so generously and successfully for the prevention of disease, or for the quick evacuation and careful tending of the sick and wounded.

In the latter sphere, the devoted efforts of the Army Chaplains of all denominations have contributed incalculably to the building up of the indomitable spirit of the Army. As the result of their teaching, all ranks came to know and more fully understand the great and noble objects for which they were fighting.

Under the immediate direction of the Adjutant - General in matters concerning military administration, the Principal Chaplain for members of all churches except the Church of England, and the Deputy Chaplain-General for members of the Church of England administer to the greatest harmony a very complete joint organisation. Provided with a definite establishment for armies, corps and divisions, as well as for the principal base ports, base camps, hospitals and certain other units, they ensure that the benefit of religion is brought within the reach of every soldier.

In all the senior offices of this joint organisation, down to divisions, the Principal Chaplain and Deputy Chaplain-General have each their representatives, the appointments to those offices in the Principal Chaplain's section being apportioned between the different Churches, Protestant and Roman Catholic, in proportion to the numbers of their following in the Army as a whole. This organisation has worked for the common good in a manner wholly admirable and with a most noteworthy absence of friction. It has undoubtedly been much assisted, both in its internal economy and in its relations with commanders and troops, by being at all times in direct touch with the Adjutant-General's Branch.

No survey of the features of the war would be complete without some reference to the part played by women serving with the British Armies in France. Grouped also under the Adjutant-General's Branch of the General Staff, Queen Alexandra's Imperial Military Nursing Service, the Nursing Sisters of the Canadian Army Medical Corps and of the Australian, New Zealand, South African and Territorial Force Nursing Services and the British Red Cross Society have maintained and embellished a fine tradition of loyalty and efficiency. These services have been reinforced by members of Voluntary Aid Detachments from the British Isles, the Oversea Dominions and the United States of America, who have vied with their professional sisters in cheerfully enduring fatigue in times of stress and gallantly facing danger and death.

Women in the British Red Cross Society and other organisations have driven ambulances throughout the war, undeterred by discomfort and hardship. Women have ministered to the comfort of the troops in huts and canteens. Finally, Queen Mary's Auxiliary Army Corps, recruited on a wider basis, responded with enthusiasm to the call for drafts, and by the aid they gave to our declining man-power contributed materially to the success of our arms.

*Training and Organisation.*

(21) The experience gained in this war alone, without the study and practice of lessons learned from other campaigns, could not have sufficed to meet the ever-changing tactics which have characterised the fighting. There was required also the sound basis of military knowledge supplied by our Training Manuals and Staff Colleges.

The principles of command, Staff work, and organisation elaborated before the war have stood the test imposed upon them and are sound. The militarily educated officer has counted for much, and the good work done by our Staff Colleges during the past 30 years has had an important influence upon the successful issue of the war. In solving the various strategic and tactical problems with which we have been faced, in determining principles of training and handling of troops and in the control and elaboration of Army organisation generally, the knowledge acquired by previous study and application has been invaluable. Added to this have been the efficiency and smoothness of working resulting from standardisation of principles, assisted in many cases by the previous personal acquaintance at the Staff College of those called upon to work together in the field.

The course of the war has brought out very clearly the value of an efficient and well-trained High Command, in which I include not merely commanders of higher formations, but their Staffs also.

This has been the first time in our history that commanders have had to be provided for such large forces. Before the war, no one of our generals had commanded even an Army Corps such as has been used as a subsidiary formation in the battles of the last few years. In consequence, commanders have been faced with problems very different to those presented by the small units with which they had been accustomed to train in peace. That they exercised their commands with such success as most of them did, shows I venture to think that their prior training was based on sound principles and conducted on practical lines.

Similarly as regards the Staff, the magnitude of our operations introduced a situation for which no precedent existed. The Staff Colleges had only produced a reserve of Staff officers adequate to the needs of our Army on a peace footing, and for the mobilisation of the Expeditionary Force of six divisions. Conse-

quently, on the expansion of the Army during the war many officers had to be recruited for Staff appointments—from good regular officers chiefly, but also from officers of our new Armies —and trained for the new duties required of them. Though numbers of excellent Staff Officers were provided in this way, it was found as a general rule that the relative efficiency in Staff duties of men who had passed through the Staff Colleges, as compared with men who had not had that advantage, was unquestionably greater.

Good Staff work is an essential to success in all wars, and particularly in a struggle of such magnitude as that through which we had just passed. No small part of the difficulty of achieving it lies in the possibility that officers on the Staff of higher formations may get out of touch with the fighting forces, and so lose sense of proportion and become unpractical. Every endeavour was made to avoid this by maintaining a constant interchange of such officers with others from the front, so that all might keep abreast with the latest ideas and experience both in the fighting line and elsewhere. In pursuance of this principle, in addition to 18 officers from Army or Corps Staffs and other officers from the Intelligence Corps or General List, there were brought in during the period of my command some 50 officers direct from active duty with divisions or smaller units to hold for longer or shorter periods appointments in the General Staff branch at G.H.Q.

It may be accepted as a general rule that previous organisation should be upset as little as possible in war. As each war has certain special conditions, so some modification of existing ideas and practices will be necessary, but if our principles are sound these will be few and unimportant. In the present war, new organisations and establishments for dealing with the demands of both the fighting and the rearward services have been brought into being continually, and added to or absorbed by our existing organisation and establishment.

The constant birth of new ideas has demanded the exercise of the greatest care, not only to ensure that no device or suggestion of real value should be overlooked or discouraged, but also to regulate the enthusiasm of the specialist and prevent each new development assuming dimensions out of proportion to its real value. As the result of our own experience and that of the French during the fighting of 1915, all kinds of trench weapons were invented, bombs, bomb throwers, mortars, and even such instruments as trench daggers. In those days, the opinion was freely expressed that the war would be finished in the trenches and every effort was made to win victories in the trenches themselves. In consequence, rifle shooting was forgotten and was fast becoming a lost art. Similarly as regards artillery, the idea of dominating and defeating the hostile artillery before proceeding to the infantry attack was considered an impossibility.

Then followed the experience of the battle of the Somme in 1916, which showed that the principles of our pre-war training were as sound as ever. That autumn, a revival of old methods was inaugurated. Musketry shooting was everywhere carried out, and bayonet fighting was taught as the really certain way of gaining supremacy in hand-to-hand fighting. At the same time, as pointed out in para. 17 above, the greatest care was devoted to artillery shooting, as well as to the training of all arms for open fighting. The events of the next two years fully confirmed the lessons drawn from the battle of the Somme. In short, the longer the war has lasted the more emphatically has it been realised that our original organisation and training were based on correct principles. The danger of altering them too much, to deal with some temporary phase, has been greater than the risk of adjusting them too little.

(22) Some idea of the extent of the organisation built up during the war for the training of our Armies can be gathered from a survey of the different schools actually established.

In the Armies important schools were maintained for the instruction of officers and non-commissioned officers of infantry and artillery in their several duties, for training in scouting, observation and sniping, in the use of trench mortars, in signalling, musketry and bayonet fighting, anti-gas precautions, mining and defence against tanks. The different Corps controlled a similar series of schools. Added to these were the special schools of the Cavalry Corps, including a School of Equitation; the Tank Corps Mechanical School; and the different courses instituted and managed by divisions, which were largely attended whenever the battle situation permitted.

Other schools under the direct supervision of General Headquarters provided instruction in the machine gun, Lewis gun and light mortar, in anti-aircraft gunnery, in observation for artillery, in sound ranging and flash spotting, wireless, bridging and other engineering duties, in firing and bombing from aeroplanes, and in physical and recreational training. At the Base depôts, big training and reinforcement camps were set up for infantry, artillery, cavalry, engineers, machine gunners, cyclists, Tank Corps, Signal and Gas personnel. Further, a regular succession of Staff officers and others were sent home to take part in the various schools and courses established in England.

In the course of the past year, it was found desirable to make provision for the more thorough co-ordination of effort among these various schools, and also for assisting commanders, especially during battle periods, in the training and instruction of such troops as might from time to time be in reserve. For this purpose an Inspectorate of Training was established. Training and organisation must always go hand-in-hand; for while tactical considerations dictate the organisation of units and methods of training, upon sound tactical organisation and training depend the development and effective employment of good tactics.

In the early Spring of 1918, the foundations were laid of an educational scheme which might give officers and men throughout the Army an opportunity to prepare themselves for their return to civil life. Delayed in its application by the German offensive and the crowded events of the summer and autumn of that year, since the conclusion of the Armistice the scheme has been developed with most excellent results under the general direction of the training sub-section of my General Staff branch, and generously supported in every possible way by the Educational Department at home. Divided into a general and a technical side, every effort has been made both to give opportunities for the improvement of general knowledge and to enable trained men to "get their hands in" before returning to civil life. In this way, be-

tween 400,000 and 500,000 persons have been brought under instruction, while the number of attendances at lectures has approached a million in the course of a month.

*Our New Armies.*

(23) The feature of the war which to the historian may well appear the most noteworthy is the creation of our new Armies.

To have built up successfully in the very midst of war a great new Army on a more than Continental scale, capable of beating the best troops of the strongest military nation of pre-war days, is an achievement of which the whole Empire may be proud. The total of over 327,000 German prisoners captured by us on the Western front is in striking contrast to the force of six divisions, comprising some 80,000 fighting men all told, with which we entered the war. That we should have been able to accomplish this stupendous task is due partly to the loyalty and devotion of our Allies and to the splendid work of the Royal Navy, but mainly to the wonderful spirit of the British race in all parts of the world.

Discipline has never had such a vindication in any war as in the present one, and it is their discipline which most distinguishes our new Armies from all similarly created armies of the past. At the outset the lack of deep-seated and instinctive discipline placed our new troops at a disadvantage compared with the methodically trained enemy. This disadvantage, however, was overcome, and during the last two years the discipline of all ranks of our new Armies, from whatever part of the Empire they have come, was excellent. Born from a widespread and intelligent appreciation of the magnitude of the issues at stake and a firm belief in the justice of our cause, it drew strength and permanence from a common-sense recognition of what discipline really means—from a general realisation that true discipline demands as much from officers as from men, and that without mutual trust, understanding and confidence on the part of all ranks the highest form of discipline is impossible.

Drawn from every sphere of life, from every profession, department and industry of the British Empire, and thrust suddenly into a totally new situation full of unknown difficulties all ranks have devoted their lives and energies to the service of their country in the whole-hearted manner which the magnitude of the issues warranted. The policy of putting complete trust in subordinate commanders and of allowing them a free hand in the choice of means to attain their object has proved most successful. Young officers, whatever their previous education may have been, have learnt their duties with enthusiasm and speed, and have accepted their responsibilities unflinchingly.

Our universities and public schools throughout the Empire have proved once more, as they have proved time and again in the past, that in the formation of character, which is the root of discipline, they have no rivals. Not that universities and public schools enjoy a monopoly of the qualities which make good officers. The life of the British Empire generally has proved sound under the severest tests, and while giving men whom it is an honour for any officer to command, has furnished officers of the highest standard from all ranks of society and all quarters of the world.

Promotion has been entirely by merit, and the highest appointments were open to the humblest, provided he had the necessary qualifications of character, skill and knowledge. Many instances could be quoted of men who from civil or comparatively humble occupations have risen to important commands. A schoolmaster, a lawyer, a taxicab driver, and an ex-Serjeant-Major have commanded brigades; one editor has commanded a division, and another held successfully the position of Senior Staff Officer to a Regular division; the under-cook of a Cambridge College, a clerk to the Metropolitan Water Board, an insurance clerk, an architect's assistant, and a police inspector became efficient General Staff Officers; a Mess Serjeant, a railway signalman, a coal miner, a market gardener, an assistant secretary to a haberdasher's company, a Quartermaster-Serjeant, and many private soldiers have risen to command battalions; clerks have commanded batteries; a schoolmaster, a collier, the son of a blacksmith, an iron moulder, an instructor in tailoring, an assistant gas engineer, a grocer's assistant, as well as policemen, clerks and privates, have commanded companies or acted as adjutants.

As a body, and with few exceptions, new officers have understood that the care of their men must be their first consideration, that their men's comforts and well-being should at all times come before their own, that without this they cannot expect to win the affection, confidence, loyalty, and obedience of those they are privileged to command, or to draw the best from them. Moreover, they have known how to profit by the experience of others, and in common with their men they have turned willingly to the members of the old Regular Army for instruction and guidance in all branches of their new way of life.

On their part, officers, non-commissioned officers, and men of the old Regular Army have risen to the demands made upon them in a manner equally marvellous. Their leaven has pervaded the whole of the mighty force which in 4½ years of war has gathered from all parts of the world round the small highly trained Army with which we entered the war. The general absence of jealousy and the readiness to learn, which in the Field has markedly characterised all ranks of our new Armies, is proof both of the quality of our old Army and of the soundness of our pre-war training. If further proof were needed, it is found in the wonderful conduct and achievements of our Armies new and old, and in the general pride with which they are universally regarded.

In the earlier stages of the war the Regular Army was called on to provide instructors and cadres round which the new Armies could be formed. All that was best in the old Regular Army, its discipline, based on force of character, leadership and mutual respect, its traditions, and the spirit that never knows defeat, have been the foundations on which the new Armies have been built up. Heavy demands were necessarily made upon our establishment of trained regular officers, most regrettably depleted by the heavy sacrifices of the early days of the war. The way in which such demands have been met by those who survived those days have justified our belief in them.

Neither have the officers of the new Armies, whether drawn from the British Isles or the Dominions, risen with less spirit and success to the needs of the occasion. The great ex-

pansion of the Army, and the length of the war, necessitated an ever-increasing demand being made on them for filling responsible positions in command, staff and administrative appointments. The call has been met most efficiently. The longer the war continued, the greater became the part played in it by the new Armies of the Empire.

## PART III.

*My Thanks to Commanders and Staffs.*

(24) In the body of previous Despatches I have found a welcome opportunity to mention by name many distinguished officers, Commanders of Corps and Divisions, whose high soldiery qualities, powers of leadership and knowledge of men have largely influenced the course of the operations with which those Despatches have dealt. I have also been able to refer to some few of the many able and experienced Staff officers by whom I have at all times been so greatly assisted. It is not practicable, in the text of this Despatch, to set out the full list of those to whom I am indebted. I would say, however, of all those already mentioned, as well as of those whose names appear below and the many others whom the limits of space compel me to exclude, that no Commander has ever had or ever could wish for more loyal assistance given more ungrudingly, or with a more complete devotion to the noble cause for which we have worked in common.

My thanks are especially due to the five Army Commanders—General Sir Herbert Plumer, General Sir Henry Rawlinson, General Sir Henry Horne, General the Hon. Sir Julian Byng and General Sir William Birdwood—whose names have become household words throughout the length and breadth of our Empire. I desire to associate with them the names of General Sir Charles Monro, who left the command of the First Army to assume the Chief Command in India; of General Sir Edmund Allenby, who, after conducting the operations of the Third Army in the battle of Arras, 1917, has since led our arms to victory in Palestine; and General Sir Hubert Gough, who, after distinguished service as a Brigade, Divisional and Corps Commander, commanded the Fifth Army (first known as the Reserve Army) during the Battles of the Somme and Ancre in 1916, east of Ypres in 1917, and finally in the great and gallant fight of March, 1918, the story of which is fresh in the minds of all.

To the Heads of the Sections of my General Staff Branch at Headquarters, both past and present, I owe and readily acknowledge a great debt of gratitude for the energy, ability and loyalty with which they have discharged their important duties. Throughout the long and difficult period of the wearing out battles of 1916 and 1917, my former Chief of the General Staff, Lieut.-General Sir Lancelot Kiggell, gave his great abilities and deep military learning to the service of his country with a loyalty and devotion which never spared himself, and in the end made demands upon his health which compelled him to retire under medical advice from the responsible position he had so ably held. His successor, Lieut.-General the Hon. Sir Herbert Lawrence, has continued his work with a like ability and with an unfailing insight, calm resolution and level judgment which neither ill-fortune nor good were able to disturb. My grateful thanks are due also to Major-General Sir R. H. K. Butler, who acted as Deputy Chief of my General Staff until his appointment to the command of the III. Corps at the beginning of 1918.

Under the able, energetic and successful directions of Brigadier-General J. Charteris, the Intelligence Section of my General Staff Branch was developed into a far-reaching and most efficient organisation for the rapid collection, sifting and dissemination of information concerning the disposition, movements and intentions of the enemy. The activities of the Intelligence Section were incessant, and the knowledge obtained thereby of the utmost value. On the transfer of General Charteris to other duties, his work was carried on with great ability by Brig.-General E. W. Cox, and after the regrettable accident resulting in the death of that distinguished officer, by Brig.-General G. S. Clive.

Since the appointment of Lieut.-General Sir Nevil Macready to be Adjutant-General at home early in 1916, the work of my Adjutant-General's Branch has been most efficiently conducted under the direction of Lieut.-General Sir George Fowke. The problems of organising the supply of reinforcements to meet the needs of our Armies while active operations were in progress, of dealing with casualties and matters of discipline, have been succeeded or supplemented since the conclusion of the Armistice by the scarcely less difficult question of demobilisation. These different tasks have been performed by all ranks of the Adjutant-General's Branch with great ability and success, despite the fact that in each instance they were confronted by conditions without precedent in the history of our Army.

Throughout 1916 and 1917 the duties of the Quartermaster-General's Branch were ably directed during a period of constant expansion by Lieut.-General Sir Ronald Maxwell. Since his retirement the control of the vast organisation, some of the broad outlines of which are described in paragraph 19 of this Despatch, has been exercised by Lieut.-General Sir Travers Clarke, who has carried on the same task in the most efficient manner.

The Director-General of Transportation's Branch was formed under the brilliant direction of Major-General Sir Eric Geddes during the autumn of 1916, as above stated. To the large number of skilled and experienced civilians included by him on his Staff, drawn from the railway companies of Great Britain and the Dominions, the Army is deeply indebted for the general excellence of our transportation services. Since the transfer of Sir Eric Geddes to other duties his work has been ably conducted by his successors, Major-Generals Sir F. A. M. Nash and S. D'A. Crookshank.

The important work of the Military Secretary's Branch has been admirably carried out under the direction of Major-General Sir W. E. Peyton and his successor, Major-General H. G. Ruggles-Brice.

The steady increase of our strength in artillery and the development of the use of that important arm upon sound and successful lines has been due in great measure to the efforts of my artillery adviser, Lieut.-General Sir J. F. N. Birch and the able Staff working under him. among them Colonel J. T. Dreyer and Colonel S. W. H. Rawlins.

The wide range of services performed by the Royal Engineers were successfully directed

during the battles of 1916 and 1917 by Major-General Sir S. R. Rice. Since that date they have been controlled with great efficiency by his successor in the post of Engineer-in-Chief, Major-General Sir G. M. Heath, formerly Chief Engineer of the First Army, assisted by my Deputy Engineers-in-Chief, Brig.-Generals J. E. Edmonds and H. Biddulph.

As indicated in a preceding paragraph, the activities of the Signal Service have expanded greatly during the period of my command. Under the direction of my Signal Officer-in-Chief, Major-General Sir J. S. Fowler, and my Deputy Signal Officer-in-Chief, Colonel E. V. Turner, the growing needs of the Army have been fully met.

The office of the Inspector-General of Training, established in the latter half of 1918, has been ably filled by Lieut.-General Sir Ivor Maxse, assisted by my Deputy Inspector-General of Training, Major-General H. C. C. Uniacke, formerly commanding the artillery of the Fifth Army, as hereinafter mentioned.

Second only to the work of the Army Commanders and heads of Branches at General Headquarters in their influence upon the conduct of operations have been the parts played by the Senior General Staff officers of the several Armies. In their responsible and arduous tasks they have been most ably seconded by the general efficiency of the Army Staffs working with them, and in particular by the heads of the "A" and "Q" Branches of Army Staffs, the General Officers Commanding Royal Artillery within the Armies and the Chief Engineers of Armies.

From the commencement of the preparations for the first battle of the Somme and throughout all subsequent operations the General Staff work of the Fourth Army Staff has been directed with great ability and success by Major-General Sir A. A. Montgomery. The admirable work done by the head of the Administrative Branch of the Staff, Major-General H. C. Holman, by Major-General C. E. D. Budworth who has controlled the work of the artillery of that Army with conspicuous success, and by the Chief Engineer of the Army, Major-General R. U. H. Buckland, has also contributed very materially to the success of the many brilliant operations undertaken by the Fourth Army.

The General Staff of the Army known during the Somme battle as the Reserve Army and later as the Fifth Army was well directed by Major-General N. Malcolm until the close of 1917. Major-General H. N. Sargent, Head of the "A" and "Q" Branch of the Fifth Army Staff, Major-General Uniacke while commanding the artillery of the Army, and Major-Generals R. P. Lee and P. G. Grant, successively Chief-Engineers of the Army, have also filled their important and responsible positions with distinction and success. Subsequent to the appointment of Major-General Malcolm to the command of a division, the duties of senior General Staff Officer of the Fifth Army were efficiently discharged by Major-General J. S. J. Percy until his transfer to the Second Army, and thereafter by Major-General Sir C. B. B. White with whom have been associated as Head of the "A" and "Q" Branch and commander of the artillery of the Army respectively, Major-General F. O. Hambro and Major-General C. C. Van Straubenzee.

During the battle of Arras, the office of senior General Staff Officer of the Third Army was held by Major-General L. J. Bols. This able officer, who at a later date accompanied his Army Commander to Palestine, was succeeded by Major-General L. R. Vaughan (Indian Army), who has directed the work of the Third Army General Staff with great efficiency throughout the whole of the subsequent operations of that Army. The able manner in which have been performed the arduous duties devolving upon the Head of the "A" and "Q" Branch, Major-General A. F. Sillem, upon Major-Generals R. St. C. Lecky and A. E. Wardrop, successively commanding the artillery of the Army, and Major-Generals E. R. Kenyon and W. A. Liddell, successive Chief Engineers of the Army, is also deserving of the highest commendation.

The work of the General Staff of the First Army in the attack and capture of the Vimy Ridge in 1917 and in all subsequent operations has been most ably directed by Major-General W. H. Anderson. Major-Generals P. G. Twining and A. W. Peck, the successive Heads of the "A" and "Q" Branch of the Army Staff, Major-Generals Sir H. F. Mercer and E. W. Alexander, successively commanding the artillery of the Army, and Major-Generals G. M. Heath and E. H. de V. Atkinson, successively Chief Engineers of the Army, have also carried out their duties in a distinguished manner.

Throughout the operations of the Second Army at Messines and East of Ypres during the summer and autumn of 1917, the elaborate General Staff arrangements for that successful fighting were admirably directed by Major-General C. H. Harington. When at a later date General Harington was appointed Deputy Chief of the Imperial General Staff at the War Office his work was undertaken by Major-General J. S. J. Percy, the present senior General Staff Officer of the Second Army. Major-General A. A. Chichester, Head of the "A" and "Q" Branch, Major-General G. Mc. K. Franks, and Major-General C. R. Buckle successively commanding the artillery of the Army, and Major-General Sir F. M. Glubb, Chief Engineer of the Army, have also accomplished the arduous and responsible tasks associated with their respective appointments with great ability and success.

I recall with gratitude the magnificent work done during the fighting of 1916 and 1917 by Major-General Sir H. M. Trenchard, at that time commanding the Royal Flying Corps. The influence exerted by this able and distinguished officer upon the moral and the development of the British Air Service and in the creation of its splendid traditions can scarcely be exaggerated. Since his transfer to another but kindred field of activity, his work has been most ably and successfully carried on by Major-General Sir J. M. Salmond, commander of the Royal Air Force on the Western front.

The rapid development of the tank as a most potent instrument of war and the creation of the high traditions of the Tank Corps have been due in great measure to the energy and inspiration of their Commander Major-General H. J. Elles.

The steady increase in the effectiveness of Gas as a weapon of offence is largely to be attributed to the able work of my Director of Gas Services Brigadier-General C. H. Foulkes.

Since the formation of the Machine Gun Corps and the creation of the office of Inspector of Machine Gun Units held successively by

Brigadier-Generals C. H. T. Lucas and L. F. Renny, the use of the Machine Gun has has received a new impulse. Very gallant and efficient service has been rendered by all Machine Gun units, and not least by the battalions of the Guards Machine Gun Regiment, lately formed from personnel of the Household Cavalry Brigade and the Guards Division.

The development of bayonet fighting, and the high standard generally attained by the troops in the use of this essential weapon are due in great measure to the teaching and enthusiasm of Col. R. B. Campbell, formerly Deputy Inspector of Physical and Bayonet Training.

The general efficiency of our Mining Services. and in particular the great success of the extensive mining operations carried out by us preparatory to the battle of Messines, is largely owed to the work of my former Inspector of Mines, Brigadier-General R. N. Harvey.

During the rapid and extensive troop movements of 1918 in particular, the constant work of the Auxiliary (Omnibus) Park was controlled with great ability by its commander, Lieut.-Col. G. L. H. Howell.

Among others responsible for the efficient work of the various rearward services and Administrative Services and Departments, my thanks are especially due to Lieut.-Gen. Sir J. J. Asser, under whose command a vast organisation with a numerous Staff has been built up on the Lines of Communication, involving the control and administration of a wide extent of France, including the administrative areas of Abbeville, Etaples, Trouville, and other places, and important bases at Dunkirk, Calais, Boulogne, Dieppe, Havre, Rouen, Cherbourg, Brest, and Marseilles; to my Directors of Medical Services past and present, namely, Surgeon-General Sir A. T. Sloggett and Lieut.-General C. H. Burtchaell, with their deputies, Surgeon-General Sir W. G. Macpherson and Major-General J. Thomson; my Deputy Adjutant-Generals, Major-Generals J. T. Burnett-Stuart and Sir E. R. C. Graham; my Deputy Quartermaster-Generals, Major-Generals R. Ford and R. S. May; the General Officer Commanding the Canadian Section at General Headquarters, Brigadier-General J. F. L. Embury; Lieut.-General Sir E. Locke Elliot, Commanding the Indian Contingent; my Provost-Marshal, Brigadier-General H. S. Rogers; my Director of Supplies, Major-General Sir E. E. Carter; my Director of Ordnance Services, Major-General Sir C. M. Mathew; my Director of Transport, Major-General Sir W. G. B. Boyce; my Director of Railway Traffic, Brigadier-General V. Murray; the Officer Commanding the Railway Operating Division, Lieut.-Colonel C. W. Paget; my Director of Light Railways, Brigadier-General G. H. Harrison; my Director of Roads, Brigadier-General H. P. Maybury; my Director of Inland Water Transport, Brigadier-General C. M. Luck; my Director of Docks, Brigadier-General R. L. Wedgwood; my Director of Works, Major-General Sir A. M. Stuart; my Director of Engineering Stores, Brigadier-General J. W. S. Sewell; my Director of Remounts, Brigadier-General Sir F. S. Garratt; my Director of Veterinary Services, Major-General J. Moore; my Director of Army Postal Services, Brigadier-General W. Price; my Controller of Labour, Brigadier-General E. G. Wace; my Director of Military Prisons, Brigadier-General P. Umfreville, who with his Staff has performed very exacting duties with great firmness and tact; my Director of Agricultural Production, Brigadier-General J., Earl of Radnor; my Controller of Salvage, Brigadier-General E. Gibb; my Inspector of Quartermaster-General's Services, Horse Feeding and Economies, Major-General J. Vaughan; my Inspector of Quartermaster-General's Services, Messing and Economies, Lieut.-Colonel E. Larken; my Director of Forestry, Brigadier-General Lord Lovat; my Director of Army Printing and Stationery Services, Colonel S. G. Partridge; my Director of Graves Registration and Enquiries, Major-General Fabian Ware; my Financial Adviser, Brigadier-General H. G. Goligher; my Paymaster-in-Chief, Major-General Sir C. A. Bray; my Directors of Hirings and Requisitions, Major-General the Right Hon. L. B. Friend; and my Deputy Controller of Expeditionary Force Canteens, Colonel E. Benson.

The duties of the Principal Chaplain and Deputy Chaplain-General have been discharged by the Reverend J. M. Simms and the Right Reverend Bishop L. H. Gwynne with a zeal and devotion for which I wish to express to them my sincere gratitude. My thanks are due also to Miss Lila Davy, the Chief Controller of the Women's Auxiliary Army Corps in France, for the very valuable assistance given by her and all ranks serving under her, and to Colonel the Hon. Sir Arthur Lawley, who as Commissioner has supervised the wonderful work done by the British Red Cross Society in France.

I desire also to take this last opportunity to record my personal appreciation of the very valuable help rendered, during the great events described in my Despatches, by other officers of my General Staff Branch at Headquarters, and in particular by Major-General Sir John Davidson, Head of the Operations Section, and those who worked under him, among them Brigadier-General J. G. Dill, Brigadier-General (at that time Lieut.-Colonel) E. Napper Tandy, Lieut.-Colonel W. G. S. Dobbie, and Major J. H. Boraston; by Major-General G. P. Dawnay, Head of the Staff Duties Section; Brigadier-General K. Wigram, formerly Head of the Operations (B) Section; Brigadier-General C. Bonham-Carter and Colonel H. F. Baillie for their work in connection with the formation and development of the scheme for General and Technical Education within the Army; and Lieut.-Colonel E. M. Jack, under whose direction the work of the Field Surveying battalions in the preparation and supply of maps and the fixing of hostile battery positions, has been of the greatest value to our artillery and other arms and services.

My relations with the Allied and Associated Armies, the co-ordination of our operations, and the good feeling existing between all ranks of our Armies and the civil population of France and Belgium have been greatly assisted by the work of the different Inter-Allied Missions. In this connection I desire to refer gratefully to the help long given to me by Brigadier-General Clive in my dealings with French General Headquarters; to the valuable work done by Lieut.-General Sir J. P. Du Cane, the Senior British Military Representative at Marshal Foch's Headquarters; by the Head of the British Mission with Belgian Headquarters, Brigadier-General the Earl of Athlone; by my present Representative at

French General Headquarters, Brigadier-General F. W. L. S. H. Cavendish; by the Head of the British Mission with the American Expeditionary Force, Brigadier-General C. M. Wagstaff; and by Brigadier-General C. A. Ker, Head of the British Mission with the Portuguese Expeditionary Force.

I desire to refer also with deep gratitude to the invaluable assistance given to me by the able and gallant officers who in turn acted as Chief of the French Mission attached to my Headquarters, General des Vallieres, who has since met a soldier's death, and his successors, Colonel de Bellaigue de Bughas and General de Laguiche. My thanks are due equally to Lieut.-General A. L. E. Orth, who as Chief of the Belgian Mission attached to my Headquarters has spared no pains to further the interests of our common cause; to Colonel C. Capello, Chief of the Italian Mission, and to Lieut.-Colonel Robert Bacon, who as Chief of the American Mission attached to my Headquarters has been able to give me advice and assistance of the greatest value on many occasions.

Finally, my thanks are due to the officers of my Personal Staff, and in particular to my Assistant Military Secretary, Lieut.-Colonel A. F. Fletcher; my Private Secretary, Major Sir Philip Sassoon, and Commandant E. A. Gemeau, by whose loyal and devoted assistance a great burden of work has been lifted from my shoulders.

(25) I desire to conclude this despatch with a very warm and sincere acknowledgment of the great debt owed by all ranks of the Armies in France to our kinsmen and kinswomen of the British Empire for the unfailing support they have given us by their thoughts, their prayers, and their work throughout the long years of war. In all those years their trust and confidence never wavered, their labours never ceased, and no sacrifices, hardships or privations were too great to be borne, provided that thereby the needs of the troops might adequately be supplied. The dauntless spirit of the people at home strengthened and sustained the invincible spirit of the Army, the while their incessant toil on land and sea, in the mine, factory and shipyard placed in our hands the means with which to fight.

Neither do we forget the gratitude due from us to the various Home Authorities, and especially to the Ministry of Munitions, by whose efforts, in conjunction with those of the Governments of the Dominions, the working power and resources of the whole Empire were so rapidly developed and co-ordinated for the more vigorous prosecution of the war. The record of what they accomplished in the space of four and a half years is indeed stupendous. If the Army may justly be proud of a great victory, gallantly won at the end of an uphill fight, we have good reason to be thankful, too, for their devoted and patriotic work, which alone made it possible to continue the struggle until a successful conclusion had been reached.

I have the honour to be,
Sir,
Your most obedient Servant,
D. HAIG,
Field-Marshal,
Commanding-in-Chief,
British Armies in France.

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