

THE BRITISH DOMINIONS YEAR BOOK 1916

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— AND —
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INTRODUCTION

A year ago "War Facts and Figures" was issued by the British Dominions General Insurance Company, Limited. The volume was received with so gratifying a chorus of approval—and, indeed, has been in such steady daily demand throughout the interval—that it was decided to follow up the experiment with "The British Dominions Year Book." This in no way claims to supersede, or to be a substitute for, familiar friends of the reference shelf—"Hazell," "Whitaker," and others, but aims rather at being a supplement to those highly estimable works which in turn supplement each other. We hope we have struck a distinctive note. Whilst we have done our best to cover those subjects which have most engaged attention in the immediate past, or have most bearing on the immediate future, our aim has in the main been to secure contributions from the pens of writers occupying positions or enjoying reputations which entitle them to set forth facts and views in the various departments of our Imperial life.

The articles in "The British Dominions Year Book" literally speak for themselves. Every one of them is the result either of knowledge which the writer is well placed to acquire, or of long years of that close study which springs from keen personal interest. Year books, as some of our contemporaries which have secured a world-wide fame know and show, are produced at a time like the present under grave difficulties. How much, for instance, is there that Mr. Fred T. Jane might say as to which he has to preserve a discreet and patriotic silence concerning the Imperial Navy? And in cases where no enemy object is to be served by giving facts, they are still not to be published for the simple reason that they are not available, at least in a final and authoritative form. The whole world's business has been dislocated: in many essential respects affairs are twelve months and more behind the time, and men and women have been making history rather than recording it. We shall have to wait for the return of peace before we can again have a free hand or possess reasonably complete up-to-date

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knowledge in such matters. Rumour, Conjecture and False Report are rampant and do their best—or worst—to fill up the gaps which Authority has either been too busy or deems it unwise to supply. Every publicist has for many months past been subject to serious disabilities from his own point of view.

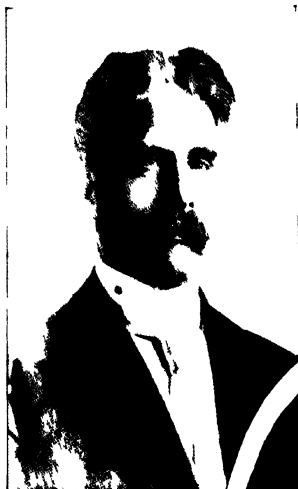
In one direction there is absolute certainty. New opportunities are going to present themselves in abundance to British enterprise. Sir Leo Chiozza Money points out the openings for conserving and preserving our own within the Empire, and Mr. Rojansky, a Russian student of affairs in his own great country, indicates where the British trader may score in Russia. The opportunities will be there, whatever be the economic condition of Germany, on which Mr. Ellis Barker writes. What we can do as a people when we put our back into it, is shown by the account given us by Mr. Massac Buist—than whom none has had more facilities for judging—of the achievements of our motor services at the front. The home—as we may gather from Lady St. Helier's appealing words on "Woman's Sphere"—the office, the nation, the Empire, everything will be different after the war, and to none will the changes which have been brought about by the sacrifice of so much life and treasure be of greater moment than to the British Dominions.

THE EDITORS.

*Sharers of our glorious past,
Brothers, must we part at last?
Shall we not through good and ill,
Cleave to one another still?
Britain's myriad voices call
'Sons be welded each and all,
Into one Imperial whole,
One with Britain, heart and soul!
One life, one flag, one fleet, one Throne!
Britons hold your own!'*

TENNYSON.

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The First Year of the War

BY E. CHARLES VIVIAN

Author of "The Way of the Red Cross," etc.



WHEN, on the 4th of August, 1914, Great Britain entered into the European war, and by assuming control of the seas gave to the conflict such a world-wide character, the opinion was freely voiced that the crime of Sarajevo on June 28th of the same year, when the Archduke Franz Ferdinand of Austria was assassinated, was the cause of the war. But, when the full history of this war and its causes comes to be written impartially, it will be seen that Franz Ferdinand's death was the occasion, rather than the cause, of hostilities. Evidence is not wanting to show that the gathering of the harvest of 1914 was marked by Germany as the fittest occasion for the outbreak of hostilities. For this reason the delivery of the Austrian ultimatum to Serbia was delayed till the 23rd of July.

Although, when the Austrian batteries opened fire on Belgrade before the end of July, hopes of limiting the area of conflict were not abandoned, those hopes vanished on the last day of July, when Wilhelm of Germany ordered the mobilisation of the German army, on the plea that the mobilisation of Russia was a threat against the peace of his realm. On the first day of August Germany declared war against Russia, and the Dual Alliance between France and Russia automatically placed Germany in a state of war with France, while Austria-Hungary joined Germany against Russia.

The actual dates of the opening of the war are as follows: Austria declared war against Serbia on July 28th; Germany declared war against Russia on August 1st; a state of war arose automatically between France and Germany on August 1st; Belgium was invaded without formal declaration of war by Germany on August 3rd; Britain declared war against Germany on August 4th; on the 6th Serbia declared war against Germany and Montenegro declared war against Austria—on the

11th Montenegro declared war against Germany; on the 12th France and Britain declared war against Austria, and on the 23rd of August, Japan declared war against Germany, this being followed by the Austrian declaration of war against Japan on August 26th.

In the first month of the war, the Russian troops in the field did not exceed two millions; France, estimated at $2\frac{1}{2}$ millions, could not raise and equip that number, while the British Expeditionary Force as first sent out was only 160,000 strong; in Germany, on the other hand, $2\frac{1}{2}$ million men were available at once for the conflict, and these with full and perfect equipment, while by the third week in August the combined German and Austrian forces were increased to over five millions of troops, with a strong reserve of trained men in the depots to fill up gaps in their lines. The actual relative strengths of the opponents, in the first stage of the war, is estimated at eight to five in favour of the central alliance, which also had the advantage of acting on interior lines.

THE WESTERN FRONT

The German plan at the outset was to crush France and quell resistance in the west, and then turn on Russia, whose slow rate of mobilisation, it was estimated, would hardly give her time to meet the blow struck by troops fresh from victory. Action began on the 3rd of August with the German violation of Belgian territory and the attempt to force the great highway of western Europe that runs by the forts of Liège. Three German divisions under General von Emmich (a total of about 40,000 men), forced the crossing of the Meuse at Visé on the Dutch frontier on August 4th, and advanced through Verviers on the southern forts of Liège. 11-inch howitzers opened fire on three of the forts composing the ring in the evening of the 4th of August, and in a few hours the guns of Fort Fléron were out of action, whereupon the Germans made repeated attacks on the trenches between the two flanking forts. All these attempts to rush the fortress ring failed, and it was not until the 7th of August, when the giant howitzers had been brought up and mounted before the forts, that Liège was open to the invaders. A group of outlying forts on the north held out till the 15th, when the last

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of them was blown to pieces, and General Leman, the heroic commander of the defence of Liège, fell into German hands wounded.

Meanwhile, from the 7th onward, the Germans were advancing through Belgium along the line of the Meuse, meeting with serious opposition only at Haelen, at the crossing of the river Gethe. On August 12th the Germans were beaten back by a force of 10,000 Belgian troops—but half a million German troops had crossed the northern frontier by that time, and the Belgian army was hopelessly outnumbered. Von Kluck had crossed the Meuse to the north of Liège, making for Louvain; von Bulow followed the line of the Meuse valley on his way to Namur, and in the Ardennes woods the Duke of Wurtemberg and General von Hausen were massing two more armies for the invasion of north-eastern France, and still farther to the left was the Crown Prince with his army in Luxemburg.

So great was the mass of the German invasion that King Albert, who had at first thought of holding the line of the River Dyle, decided to fall back on Malines (Mechlin), for the protection of Antwerp, as a stand at the Dyle, under such odds, would inevitably have involved the complete destruction of the Belgian army. The retreat, which uncovered Brussels, began on the 18th of August, and Brussels capitulated without resistance on the 19th, the Germans marching through the city next morning.

Compared with the work of the German troops, the mobilisation of the French armies had been slow. The siege of Namur began almost simultaneously with the occupation of Brussels, and by that time the greater part of Belgium was in enemy hands; the advance of the enemy columns swept the country from Namur to Brussels, beyond which, toward Bruges, masses of cavalry were thrown out as a flanking screen, and two army corps followed the retreating Belgian army towards Malines.

During the period of French mobilisation, political reasons drove the French to attempt the reconquest of the lost provinces, and on August 7th a French column took Altkirk and pushed on to Mulhouse. By the 10th, however, this column had been pushed back by superior German forces, and the mobilisation was completed before any further attempt was made.

By the end of the second week of August the French troops were disposed along a line stretching from the Vosges to the river Sambre, beyond which the arriving British troops were given the extreme left flank of the line. The first army, under General Pau, held the line of the Vosges; the second, based on Nancy, was under command of General Castelnau; the third, with headquarters at Verdun, held the Luxemburg frontier; the fourth faced the Duke of Wurtemberg and von Hausen in the Ardennes country, commanded by General de Langle, and the fifth was deputed to hold the country between the Meuse and the Sambre; the British Army, sent out between August 4th and the 18th, was under command of Sir John French, and, concentrating at Cambrai by rail, moved forward to its place in the line, with its centre at Mons. At the outset, in accordance with the French tradition of attack, the whole French line moved forward, relying on the fortress of Namur as a pivot.

A general advance of the French centre and left in the third week of August ended in defeat that was almost disaster; De Castelnau's army was attacked by the Bavarian army that moved south from Metz, and the 15th French corps, giving way, were driven across the frontier with the loss of eighty guns (an admitted loss) and prisoners by the thousand. All the ground won in Alsace, on the right of the defeated army, had to be evacuated, and to the left of De Castelnau General de Langle was forced to fall back on Mezieres. Still farther to the left the German masses under von Bülow attacked the French army under De Lanzerac, and by the afternoon of the 22nd Charleroi, after desperate fighting, was in enemy hands, while the retirement of the whole French line left the British right flank dangerously exposed. It was late on the 23rd before the news of the French retirement reached the British headquarters, and by this error Sir John French was forced to give battle at Mons, although von Bülow's army was almost on his right rear. On the 23rd, too, the defence of Namur collapsed, and made impossible the projected resistance to the German advance.

Throughout the afternoon of Sunday, the 23rd, the British troops held the position at Mons and inflicted immense slaughter on the enemy, but when the news of the retreat of Lanzerac's army came through it was

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the British line of communication by making St. Nazaire the nearest safe port of entry to France. So critical was the fate of Paris that on September 3rd the French Government was moved to Bordeaux, and the defences of the city were organised for a siege.

But, until the retreating Allied armies had been defeated, Paris was useless to the Germans, and in anticipation of easy victory the enemy went forward to the position of the Marne, von Kluck moving across the Allied front diagonally to close the gap between his own army and that of von Bulow on his left. The battle of the Marne began with the Allied advance on September 6th, when von Kluck's force was taken on the front and in flank by the British troops, and farther to the east the French troops began to advance on Rheims, while on the extreme right the Crown Prince's troops were driven back between the frontier fortresses and the upper waters of the Marne.

The battle lasted five days. Beginning at dawn of Sunday, the 6th, with the checking of the enemy advance, the British and French pushed on toward the Marne, forcing the enemy back, all through Monday and Tuesday. Heavy rains on the night of Tuesday, the 8th, bogged whole batteries of the German guns in the marshes of St. Gond, to the south of Epernay, and by the night of the 9th the Allies were across the Marne and the enemy was in full retreat to a position extending along the north bank of the Aisne. Rheims was reoccupied by the Allies, and the tide of German victory and advance was successfully stemmed at last. The German plan of crushing France before turning on Russia was spoilt, and the German armies, reduced to the defensive, took up position along the north bank of the Aisne, in order to hold as much territory as possible for the period during which they were reduced to defensive action.

Frontal attack against the position of the Aisne merely revealed its strength to General Joffre. There was little difficulty in the actual crossing of the river, which was carried out on the 14th of September. But further advance was found to be almost impossible, for the Germans, having studied this position before the outbreak of war and learned its strength, had transformed the line of heights north of the river into a fortress line, strengthened by the siege guns that had

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been used before Namur and Maubeuge, as well as by long-range guns which, among other things, reduced the famous cathedral of Rheims to mere ruins. The battle of the Aisne, begun on the 14th of September, cannot be said to have ended definitely on any date: it merely fizzled out, as the Germans held the position and the French prevented advance from it, while both sides engaged in a race to outflank each other to the west, the Allies attempting to turn the German flank, and the Germans attempting to turn the Allied flank. On the 18th General Manoury's army set out along the valley of the Oise toward Noyon, De Castelnau was set to operate on Manoury's left, and another new army was concentrated at Amiens in order to force the Germans to relinquish the line of the Aisne, by means of a threat at their flank. By September 21st the Germans had been driven out of Noyon, but De Castelnau was held up at Lassigny and Roye, and, extending his line northwards, he was continually met by corresponding German lines, up to Arras and the plateau of Albert, on which was fought one of the great battles of this phase of the war. Attempting to break through the French line here, the Germans were driven back early in October, and the honours of the action lay with the French.

Both sides strained every nerve to get round on the western flank, but without success, and in the end the line reached from the Swiss frontier to the Belgian coast line near Nieupoort. Antwerp, a constant thorn in the German side, was reduced by von Bessler's army and evacuated by the Belgian troops and the supporting British Naval Brigade on the 6th of October, and on the 9th the German troops occupied the city, while the little Belgian army marched to take its place on the extreme flank of the Allied line, under the command of its heroic king. Ghent was occupied by von Bessler on the 12th of October, Bruges was occupied on the 14th, and on the 15th von Bessler's troops completed the German line by reaching the coast. The British and Belgian line of defence was taken up along the banks of the Yser, and the next German effort was directed to cutting the Allied line somewhere along a sixty mile front, the attacks being based from Lille, which was now in German hands.

From the 20th of October onward, for a period of three weeks, raged what may be termed as a whole the

first battle of Ypres, though the attacks ranged from the coast to Arras. The fierceness of the fighting may be gauged from the fact that during that period the British casualties totalled over 40,000 killed, wounded, and missing, and in one week alone over 20,000 wounded came into Boulogne hospitals. By a narrow margin victory lay with the Allies, and toward the coast the Belgians confined the German attacks to the vicinity of Dixmude by flooding the country inland from that point. After this first battle of Ypres, the most critical and hardly contested action of the western war, both sides entrenched themselves and settled down to the monotony of the winter campaign, which was marked by no decisive actions.

Reference must be made, however, to the German thrust at St. Mihiel, which was intended to break the frontier line of forts in the east and isolate the great fortress of Verdun. The Germans succeeded, in an attack which began on the 21st September and lasted nearly to the end of the month, in reducing three of the frontier forts and gaining a crossing of the Meuse at St. Mihiel, but they advanced no further. Here, as at all other points of the line at which attacks were made, the French hurried up reinforcements, and though the Germans made an opening in the fortress barrier, they were unable to advance through that opening, and often hard pressed to maintain it.

Throughout the winter the Allied forces pursued a policy of attrition, of wearing down the enemy strength. As time went on, too, the German superiority in numbers was gradually reduced, and the initiative definitely passed to the side of the Allies. Small though the Allied successes of the winter and spring were in a territorial sense, they materially weakened the German line by threatening its railway communications in rear; the only failure in the French series of winter attacks was that of Soissons, near which, on January 8th, General Manoury captured hill 132 on the north bank of the Aisne. By the 13th, owing to a flood which broke all the bridges but one across the river, all the ground on the north of the Aisne was again in German hands, and this formed the only point at which the Germans improved their position in the winter campaign, on the western front.

The first noteworthy event of 1915 on the western front—a noteworthy in the large sense of the word—was the capture of Neuve Chapelle by the British troops

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on March 10th, an action which modified the British portion of the defensive line considerably to the enemy's disadvantage. Minor conflicts along the whole of the line continued until the second week in April, when the Germans again attempted to break the British front round Ypres. This second battle of Ypres continued until April 26th, when the British were able to take the offensive. By May 11th this second great attempt on the part of the Germans was definitely broken, and the French offensive on the right of the British line made progress north of Arras. On May 15th, between Richebourg L'Avoue and Festubert, the British attack broke the German line on a two-mile front. The use of poisonous gases by the enemy gave him a temporary advantage towards the end of May, but little permanent advantage resulted.

In this trench warfare of the west, only minor gains accrued to either side throughout the summer months. The French, having gained the initiative in the spring, worried their enemies at various points along the line, notably in the sector north of Arras, and in Alsace, where point after point was captured with a view to obtaining artillery command over the German communications. Thus between May 28th, when the French first made substantial progress toward Souchez, and June 12th, when Souchez railway station fell into French hands, activity was principally confined to the sector north of Arras, the objective point being the great strategic junction of Lens, through which the German lines in this area were munitioned. With the capture of Souchez station, Lens itself was menaced, and the Germans were forced to throw reinforcements into this sector—which made possible the French advance in Alsace. The summer actions on the part of the French may be considered as a business of worrying the enemy, with a view to capturing points of command over the German lines rather than with a view to an immediate and substantial advance. And, except for the breakdown before Soissons on January 8th—13th, already outlined, this policy of sapping and worrying met with complete success.

In July, following on repeated French successes in the forest of the Argonne, the army of the Crown Prince made a determined and costly series of attacks on the French front. Such advance as this series of

attacks yielded to the Germans was magnified out of all proportions in enemy reports, and by the time the first year of war came to an end the attacks had grown spasmodic and ill-planned. They resulted in a great loss of life among the Bavarians of the Crown Prince's army, and in little else.

The year of war ended, on the western front, with the French and British lines advanced, on the whole, beyond the original position taken up when the race for the coast ended in the preceding autumn. Such advances as have been made have been small, but they have modified the front to our advantage, since this is not a territorial struggle, but a fight for positions; it is not a matter of driving the enemy back trench by trench over a large extent of ground, but of forcing him to relinquish one long commanding line, and when that line is mastered by the Franco-British troops, the nature of the country will compel a lengthy enemy retirement. There was, at the end of the first year, no decision, but sufficient advantage had been gained to point the way that the decision must eventually fall. On September 25, after a month's heavy and incessant bombardment of the German positions from the sea to the Swiss frontier, the British south of La Bassée, and the French in Champagne, delivered attacks which resulted in a material advance, the capture of 23,000 prisoners and 70 guns. This was regarded as the opening of the decisive phase of the western war.

THE EASTERN CAMPAIGN

On July 29, 1914, a week before England's entry into the war, Austria opened the campaign in the east by the bombardment of Belgrade, which she was unable to occupy until November, and then only for a very little time. The first move of importance was the Austrian advance, beginning on August 12th, with a force of 200,000 men across the Save and the Drina; the left of this army occupied Shabatz, and the right advanced as far as Zvornik, but on the 15th this army was encountered by the main body of the Serbian army and driven back across the frontier with heavy loss, after three days of stubborn fighting. Montenegro also acted against Austria, and these two small States rendered good service to the cause of the Allies by detaching large Austrian forces from the eastern mobilisation

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against Russia, though in the fighting Serbia was bled white and both States were brought to the verge of destruction, from which they were saved only by Russian pressure on Austria.

While, by the 10th of August, Austria had two large armies up on the Galician frontier, German mobilisation in the east was at first confined entirely to the defensive, and Russia threw 300,000 men across the East Prussian frontier early in August, under Generals Rennenkampf and Samsonoff. Rennenkampf, held up at Gumbinnen on August 16th, drove the Germans out of their entrenchments after four days of hard fighting, and advanced on Königsberg with a siege train. Meanwhile Samsonoff fought his way through the marshy area of the Masurian Lakes to Allenstein, contact between the two armies being maintained by Cossack cavalry. East Prussia was overrun, and von Hindenburg was sent with an army to the relief of the province.

On August 26th von Hindenburg came in touch with Samsonoff's force, enveloped its flanks, and in a battle lasting five days virtually destroyed the army,—it was the greatest victory of the first phase of the war. 90,000 prisoners and 500 guns fell to Hindenburg's force, and the victory, known as that of Tannenberg, seriously threatened Rennenkampf's army before Königsberg by laying its flank bare. Rennenkampf, however, managed to retire across the frontier, and by the first week of September the Russian occupation of East Prussia was at an end.

In the south, however, the Russian successes more than compensated for the failure of the East Prussian raid. The two great Austrian armies crossed the Russian frontier on August 10th, the army of General Dankl, on the west, moving on Lublin, while von Auffenberg, in command of the eastern army, advanced northward from Lemberg. On the 14th, the Russian mobilisation admitted of such strength in the fighting line that the Austrians were forced to give ground, and while Dankl was held on the west von Auffenberg was steadily driven back on Lemberg. This he evacuated hurriedly, after a serious defeat before the fortress, on the 1st of September, and on the 2nd Lemberg was occupied by the Russians, who made large captures of war material and took prisoners most of the Eastern Austrian army. With Dankl also defeated, Eastern Galicia fell

into Russian hands with the capture of its capital, Lemberg. The remnants of the Austrian armies fell back on Przemyśl and the line of the Carpathian northern foothills, while in the west they held the line of the River San.

Possibly by reason of the comparative success and failure of the two sets of operations, the Russian plan of campaign at this stage resolved itself into holding the northern line, while in the south Hungary was to be menaced and Cracow threatened, since the capture of Cracow would have laid Silesia, the eastern industrial area of Germany, open to attack. The line of the Vistula was reckoned as the line of defence for central and northern Poland, and attack was concentrated on the south. In order to nullify German machinations in Poland, a proclamation by the Czar on August 15th promised home rule to the Poles at the conclusion of the war.

Meanwhile, knowing well that "he who holds the Vistula holds eastern Europe," the Germans planned a great attack on the Warsaw bridgehead, in order to win the control of the Vistula banks. Von Hindenburg followed up Rennenkampf's retreating army to the line of the Niemen, but by September 18th Russian reinforcements had so strengthened Rennenkampf's army that Hindenburg was forced to retreat. By September 25th the retreat had taken him back to Augustovo, where he made a stand for a week, and then, having lost heavily, he retired across the East Prussian frontier again. Here he held a line in the Masurian Lake district with success until the end of the year.

In the south, the Austrians had been forced off the line of the San and Jaroslav had been occupied by the Russians by the middle of September, and on September 28th Przemyśl was invested by an army under General Dimitrieff, while the main body of the Russian advance pushed on toward Cracow, and toward the Carpathian passes. The great railway junction of Tarnov had been captured by the Russians before the investment of Przemyśl was completed, and Cracow prepared for siege.

But von Hindenburg, by way of counter attack, massed forces by means of the German strategic railways against central Poland, directly threatening Warsaw, and the great industrial centre of Lodz was occupied by the Germans on October 11th, thus compelling the Russian armies to fall back from before Cracow to hold

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the Vistula line. Tarnov and Jaroslav had to be given up, the Carpathian heights had to be abandoned, and the line of the Vistula was for a time in danger from Hindenburg's rapid advance. On October 20th the Germans were within four miles of Warsaw itself, but the Russian defence was sound, and on the 24th of October von Hindenburg began to retreat again, destroying all communications as he went. The Austrians drew back to Tarnov, and Przemyśl, which had been relieved in the course of the Russian retreat, was again besieged.

With this German reverse the whole of the Russian offensive was resumed. The Carpathian passes were attacked in the south, Silesia was threatened again, and an army was sent across the frontier in the region of the Masurian Lakes, just as the first battle of Ypres ended in a German failure on the western front. In order to stay the Russian advance, von Hindenburg collected nearly a million men in the centre again, and, in the middle of November, made a second thrust at Warsaw. Fighting began on November 15th in front of Łódź, and by the 19th the Germans, forcing back the left flank of the Russian armies, had formed a sort of pocket in their enemy's line, in which they were enveloped and defeated with a loss of about 10,000 prisoners and a large quantity of artillery and supplies. But the Russian line had been weakened, and General Rennenkampf was forced to withdraw and uncover Łódź, which was occupied for the second time by the Germans on December 5th.

On account of this withdrawal, and to satisfy a popular outcry, Rennenkampf was relieved of his command under the Grand Duke Nicholas. The Russian line, following the lower Vistula and the Bzura rivers, made it possible to continue the siege of Przemyśl and the attack on the Carpathian passes, and up to the end of the year this line was held, with occasional dashes and minor victories to either side. It was not until March 22nd that Przemyśl fell, with 126,000 prisoners, into Russian hands, and not until the 9th of April that the Russians reached and held the summits of the Carpathian passes. Up to the end of April the steady Russian advance went on in the south, and meanwhile the Germans, who had contented themselves with defensive actions throughout the winter, accumulated munitions and prepared for an attack in mass to force a Russian retirement.

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That attack was launched with tremendous force against the Russian positions on the River Dunajec on May 3rd, and throughout all western Galicia the Russians began to retreat, abandoning the Carpathian crests and falling back on the line of the San. Steadily and in good order the retirement was continued; Przemyśl was retaken by the Austro-German forces on June 3rd; by the 19th the Russians, having inflicted huge losses on their assailants, were back in front of Lemberg, and on the 22nd Lemberg was recaptured by the enemy armies. Farther west, Halicz fell into German hands on the 27th of June, and in the east of the field of action the Russian line was withdrawn from the Dniester to the Gnila Lipa river. In this third great German attack in the east, the object was not so much the capture of Warsaw and its bridges as a decisive action which should cripple the Russian armies long enough to admit of obtaining a decision in the west; the perpetual Russian retreat foiled this object, and by means of stubborn rearguard actions the Russians inflicted immense losses on their enemy, in spite of the fact that German heavy guns and their munitions gave them a decided superiority over the Russian forces.

Throughout July the Austro-German attack was maintained with every man and gun that could be spared from the western front, but, though the superiority of gun power on the German side forced a continuance of the Russian retirement, the enemy was unable to break the orderly nature of that retirement. Every step of the way was stubbornly contested by the Russians, and the cost of advance to the Germans may be estimated from the fact that the German official statement admitted over 270,000 casualties on the eastern front alone between the beginning of May and the end of July. The reversed German plan of campaign aimed at a complete crushing of the Russian armies, at any cost—and the plan failed.

The decisive phase of the great attack was made up of attacks on the two outer lines of rail which extend from Warsaw into Russia, and a frontal attack on the positions west of Warsaw, protecting the city and its bridges. Von Mackensen led the southern group of German armies, and von Hindenburg the northern group, the former acting against the Lublin-Cholm-Warsaw line of rail, and the latter against the line of the River

The First Year of the War

Narew, which protected the northern Warsaw-Petrograd railway. At an immense cost, Mackensen partially gained his object—he won the railway, but failed to break the Russian line or inflict a decisive defeat on his opponents; on the line of the Narew Hindenburg sacrificed men by the thousand, but failed to make good the crossing of the river. Crossing at various points, he was unable to connect up his forces on the southern bank.

Warsaw was abandoned to the enemy on August the 4th, after its bridges had been blown up and the city cleared of everything that might have been of value to the Germans. The Russian troops had held the enemy at bay west of the Vistula for no less than three weeks, simply in order that they might clear the city, and render its capture a barren triumph. The first year of the war ended in the east with the Russians still falling back toward the line marked by the great fortress of Brest-Litovsk, standing on the chord of the arc whose western extremity is marked by the bridges of Warsaw.

Simultaneously with the abandonment of Warsaw, the fortress of Ivangorod, unsuited to defence against modern siege artillery, was abandoned to the Germans—the retreat from Warsaw had rendered the retention of Ivangorod useless. Novo Georgievsk, the northern of the two fortresses protecting the Warsaw salient, was still held, pending the evacuation of the line of the Narew by the northern portion of the Russian forces.

The main feature of this great Russian retreat in the face of superior strength—and especially of superior gun power—was its steady, orderly character, and the immense losses that the Russians inflicted on their enemies throughout the whole period. The extended line of action compelled Germany to call into the firing line all her reserves of strength; the fall of Warsaw must be counted as a disaster to the Allied cause, since it pinned the Russian armies behind the line of the Vistula; the cost in men to the German armies, however, rendered this great advance in the east no less a disaster to them, for at the end of the first year of war their last men were in the field, while the armies of the Allies have not yet attained to their full strength. Russia and Britain alike were still arming for the final phase of the war, and in the eastern field, as well as in the west, there was every ground for confidence. The Russian line at the beginning of September, 1915;

stretched almost directly from Riga in the north to the Roumanian frontier in the south, and signs were not wanting that this line marked the limit of retreat. A heavy blow at the Austro-German centre, resulting in the capture of some 25,000 prisoners* and many guns, coincided with the Czar's taking the field as commander-in-chief of the main armies. The event gave an optimistic tone to the Russian reports, from which it was inferred that the enemy advance was ended. Practically all Poland was in enemy hands, but the Russian strategy, counting territorial concessions as of no moment in comparison with the destruction of the enemy, justified the abandonment of the great fortresses of Poland.

THE DARDANELLES CAMPAIGN AND ITALY'S WAR

The earlier naval operations at the Dardanelles proved conclusively that the forcing of the straits was an impossibility without co-operation on the part of a land force, and, consequently, a combined British and French force was sent out, under the command of General Sir Ian Hamilton, to force the Gallipoli forts from the land side. The actual landing, which will rank for all time as one of the most heroic feats of any war, was accomplished on April 25th at several points along the coast. A considerable advance inland was made on May 23rd, and since that time minor advances have been recorded from time to time, but the two strong positions of the peninsula, Achi Baba and the Pasha Dagh—the latter directly overlooking and guarding the main forts of the Dardanelles, remained to be taken at the end of the first year of war. The steady though slow advance of the Allies, however, is gradually weakening both the physical resistance and the *moral* and efficiency of the German-led Turks in the peninsula. In August the British achieved another masterly effort in combined operations by landing a force in Sulva Bay, entirely to the surprise of the enemy.

Italy declared war on Austria, but not on Germany or Turkey, on May 23rd. The beginning of the Italian war was confined to attacks by sea and by aircraft, but on June 2nd the mobilisation of the Italian Army had

*This figure was swollen to 75,000 in a few days.

The First Year of the War

so far proceeded as to admit of the crossing of the Isonzo, and on June 11th Gradisca, an important point north of Montfalcone, was solidly held by the Italians. Fighting in very difficult mountain country, the Italian armies advanced slowly, and by the end of July over 20,000 Austrian prisoners were in their hands and the great fortress of Gorizia, barring the way to Trieste, was seriously menaced.

The value of the Italian campaign to the Allied cause lay not so much in what the Italian troops were able to accomplish in the way of an advance, as in the number of Austrian troops they were able to engage and absorb. The campaign of the Trentino and the Carso Plateau, along which lies the way to Trieste, was like nothing so much as an ulcer in the side of Austria, continually draining away strength badly needed for the Russian campaign. From the very beginning the Austrian command under-estimated the strength of the Italian attack, or the line of the Isonzo had never been crossed by Italy; since that line was crossed, a continual and increasing stream of reinforcements for the Italian front was drained away from the main Austrian armies in the Russian theatre of war, and this drain of strength was bound to have a serious effect, for Austria, like Germany, was at the end of her reserves of men, and could only strengthen one front by weakening another.

Italy declared war on Turkey toward the end of August. As winter conditions curtail operations in the mountain campaign against Austria, it is probable that Italian energies will be directed against the more accessible enemy in the Gallipoli Peninsula. The Balkans remained the unknown quantity: in September Bulgaria mobilised, and this was followed instantly by the mobilisation of Greece.

COLONIAL WARS

Germany's colonial possessions in the Pacific were first to fall, being captured mainly by Australian and New Zealand troops in August and September of 1914. The leased territory of Kiao-Chau, with the important port of Tsing-Tau, Germany's only possessions on the continent of Asia, fell to Japanese arms on the 10th of November.

The principal colonial conflicts have taken place on African soil. Togoland, in West Africa, fell in the first

month of war, being formally surrendered to the British forces on August 27th. In the German Cameroon area, although the fighting was not brought to a definite conclusion and formal surrender, the Allies hold possession of the coast line and all the railways. In East Africa, the position was very unsatisfactory at the outset; although, thanks to the splendid patriotism of the settlers in Uganda, the railway has been solidly held, it has so far been impossible to advance into German East Africa, but this situation improves as time passes, and the balance of strength has passed from the side of the German colonial troops to the British.

German influence and money succeeded in fomenting a rebellion in British South Africa at the beginning of the war, but this was crushed by the prompt and effective action of General Botha and his colonial troops. The chief leader of the rebellion, Maritz, was driven into German territory, and in February General Botha began his advance against Windhoek, the capital of German South-West Africa. Climatic difficulties made the advance a slow business, and there were several hotly contested actions, but on May 10th Windhoek was in Botha's hands, and the German forces retreated to the hills north-east of the colony. An encircling movement was carried out with fine strategy, the German troops were cut off from their bases of supply, and on July 9th the entire German force surrendered to Botha, and the campaign was at an end.

Fighting in the Persian Gulf area against a Turkish force, the British troops took Bussorah on the 23rd of November, and the succeeding months have been taken up in this area by the driving back of the Turkish forces along the valleys of the Tigris and Euphrates. Another Turkish enterprise, the attack on the Suez Canal, had a disastrous conclusion on February 3rd and 4th, when one pontoon-load of the enemy got across the canal and came prisoners to Cairo, while the rest were forced to abandon the attempt and retreat by the way they had come.

With the possible exception of the East African campaign, it may be said that all these colonial wars were either brought to their only possible ends, or were well on the way to those ends, leaving interest to centre on the four main theatres of war on the western and eastern fronts, in the Italian area, and in the Dardanelles.

The Imperial Navy

By FRED T. JANE

Author of "Jane's Fighting Ships," etc.



THE present war is the first Empire war; that is to say, the first in which Britain overseas has taken a marked share. It is true that in some of the old French wars, before the days of American Independence, the American Colonists possessed one or two fast frigates which operated in their own waters against French war-ships. This, however, was purely a matter of local coast defence, and in no sense "Empire War." Again, both in the Soudan campaign and in the South African war colonial troops operated with the British Army. But this work was entirely military and in no sense naval co-operation. In the present war, however, we have not only seen direct naval co-operation from the Dominions, but also co-operation of a highly valuable nature.

When war broke out, unexpectedly for the world—not unexpectedly probably for some of those more immediately concerned—the entire British Fleet was mobilized for the annual Fleet operations. It is a favourite German argument that had the Kaiser intended war he would not have selected a moment when the British Fleet was all ready. This argument is entirely fallacious. Austria's declaration of war on Serbia coincided exactly with the date (known to all the world months beforehand) when the British Fleet, having concluded its operations, was destined to scatter and proceed to its home ports to give manœuvre leave to its crews, who would then scatter all up and down the country, and—seeing that many were Reserve men who had done their necessary service for the year—take the best part of a week to re-collect. In short, "Der Tag" was most carefully arranged to occur at just the one period of the year when the British Navy would normally be more or less non-existent as a fighting force instantly available.

These things happened on a Sunday—ever a lazy day. The First Lord of the Admiralty, Mr. Winston Churchill, was week-ending at Cromer. It was the calm

before the storm. Suddenly came the news of Austria's declaration of war on Serbia. The First Sea Lord, Admiral Prince Louis of Battenberg, was at his post. Instant action was necessary if the British Fleet were to be ready for all emergencies. On his own responsibility he took the action which alone could save the situation. He ordered the Fleet to "stand by." The result of this was that when, in accordance with our treaty obligations, we declared war on Germany, the British Fleet was off the German coast within two hours of the declaration of hostilities. It is well that it was. For it encountered a number of German transports destined to invade our shores. At the first sight of British advance ships this invading force wisely turned tail; and so England was saved from all the horrors of Belgium.

So much information has been withheld or only partially announced that it is impossible at this stage to give a categorical history of the war. We are also still too much in the thick of things for it to be possible to obtain a due perspective—to say that one thing was of major and some other thing of minor import. One can, therefore, only treat the war in its phases, without any very strict attention to detail. These phases resolve themselves into certain sections, which I propose to attend to in detail and merely as chronologically as may be.

THE MINE PHASE

At the beginning of the war, probably before it had ever commenced, the Germans laid an enormous number of mines in the North Sea—erroneously described as "floating mines," *i.e.*, mines allowed to drift with the tides instead of being anchored. There are quite enough real counts against the Germans without it being necessary to invent imaginary ones. There is absolutely no evidence that they ever deliberately set mines adrift: such mines were just as likely to injure them as the British. What actually happened was that being hastily and perhaps indifferently laid, a considerable number of these mines broke loose from their moorings. The net result of this was that, although the Germans at the beginning obtained certain results—some of which have been published and some not—contact mines gradually ceased to become a feature of the war. Their existence quickly produced a vastly expanded service of mine-sweeping trawlers, till things came to such a

BADGES OF RANK - ROYAL NAVY.

CUFFS,



Wing Captain.



Medical
Director-General.



Paymaster-in-Chief.



Naval Instructor



Wing Commander.



Surgeon-General.



Fleet Paymaster.



Chief Schoolmaster



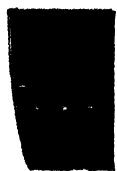
Squadron Commander.



Deputy Surgeon-General



Staff Paymaster



Head Schoolmaster.



Flight Lieutenant.



Fleet Surgeon



Assistant Paymaster,
4 years' seniority.



Carpenter-Lieutenant.



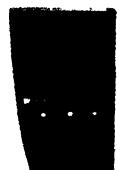
Flight Sub-Lieutenant.



Staff Surgeon.



Assistant Paymaster.



Chief Carpenter



Lieutenant (Civil Branch),
Royal Naval Reserve.



Surgeon.



Clerk.



Carpenter.

pitch that if a mine were laid down one day it was probably dragged up the next. This, of course, does not affect mines laid for the defence of harbours and estuaries—fields of this sort are under direct protection. But indiscriminate mine-laying has ceased to be a useful war factor.

THE COMMERCE WAR PHASE

An essential feature of the German war plan was a concerted and world-wide attack on British commerce. The scheme was well thought out and very cleverly manipulated. It was realized that all outlying bases must fall into British hands—the war had endured a very little while before the Australians captured a German colony. Consequently the use of German bases had no part in the scheme of things, even the fortified base of Kiao-Chau being evacuated by the German squadron on the eve of the declaration of war. Instead, there was substituted a scheme whereby certain lonely spots on the oceans were visited at certain fixed dates by supply ships chartered from neutral harbours. To the lay-public, the full inwardness of this may not be apparent, as few shoregoing folk realize the ocean. They are prone to regard it as a vast space of water dotted with ships. Actually, it is indeed a vast space; but what makes mostly for the infinite vastness is the fact that no ships ever travel promiscuously upon it. All follow certain well defined routes: the shortest cuts from certain ports to certain other ports. All the rest of the ocean is where one might wait for a hundred years without seeing any sign of human life. On this fact the German plan was based.

For a really successful commerce war it was, of course, necessary to have a large number of cruisers loose on the High Sea. But to send out a large number beforehand would have attracted attention. Consequently, before the outbreak of war, merely a few were sent—just as many as could be sent secretly, and no more. The rest would have cleared directly war was declared: but in this way they were foiled by the instant readiness of the British Fleet. This stopped their getting out. This is what rendered the commerce war abortive—there were too few ships available to carry things to a successful issue. Moreover, sufficient allowance had not been made for the brain of the British Admiralty. Von Tirpitz appears to have assumed that the British cruisers

would hunt vaguely over the ocean for his corsairs, and to have based his plans on that idea. There he went adrift. The British Navy never did any hunting on such lines. Instead, it realized that the corsairs, unsupplied, could only keep the seas for a week at the utmost, probably for a lesser time still. So it let the corsairs alone and concentrated all its efforts on the supply ships and gradually eliminated them.

When the *Königsberg* destroyed the *Pegasus* it was clear that her career was ended. A corsair cannot fight and continue her original occupation. She may win the fight, but the risk of damage is such that any fighting is lunacy. So when the *Königsberg* fled up the Rufiji River, her career was ended as expected. The overseas British Navy settled her hash. With the *Emden* it was just the same thing. For a while the *Emden* created havoc in the Bay of Bengal and some disturbance in Indian financial circles. The financial disturbance was, however, slight and of a very temporary nature—nothing akin to the hoped for result. Certain sailings were cancelled, certain valuable cargoes were sent to the bottom, but no really material effect was achieved even when the *Emden* was at the apotheosis of her career. Taken by itself a million pounds or so of mischief sounds large. Taken in consideration with the entire volume of British trade it is a mere flea-bite.

Be that as it may, however, while the *Emden* destroyed for the sake of destroying, the British Navy concentrated on cutting off her supplies. And when the *Emden* steamed into Penang under the Japanese flag and surprised and sank a Russian cruiser, the British Navy knew that its work was done. It knew that the *Emden's* career was ended. A commerce destroyer as mentioned above, cannot risk fighting except as a last resort. Winner or loser it is too much risk to her career. As the deliberate attacker it was perfectly clear that Captain von Muller of the *Emden* knew that his days were numbered, and that he thought that the only thing left was to do as much mischief as possible before going under. So he was eventually smashed up at the Kokos Islands by the Australian cruiser *Sydney*.

I doubt whether the true inwardness of this has ever been properly understood. I doubt whether anyone has yet properly realized the part played by Britain Overseas. Von Tirpitz certainly never took it into his calculations. He devoted much thought to England; but he certainly

never comprehended "Britain Overseas." To him it was probably just a meaningless phrase on a par with the Kaiser's "Mir und Gott." Certain it is that he failed to realize that the British Empire is world-wide. He understood well enough that the colonial is not an Englishman. Why should he be? England is merely part of the whole and not necessarily the biggest part at that. Germany failed to understand that a Britisher is a Britisher—that there is such a thing as the British Empire.

With the destruction of the *Emden* the overseas commerce war practically ended. Things happened both before and after that event, but they were all of the nature of minor issues. For example, on November 1, nine days before the *Emden's* career closed, von Spee, the German admiral from Kiao-Chau, met the British Admiral Cradock off the coast of Chile. Von Spee was the smartest of the German admirals, and he operated along very scientific lines. He had two good armoured cruisers, the *Scharnhorst* and *Gneisenau*, also some small fast cruisers. He kept his two larger ships together as a base from which the lesser fry could radiate. If any danger threatened they had merely to fall back upon him. This was a most judicious arrangement, but it did not stop the attrition of supply ships. By ignoring the neutrality of Chile, von Spee used the island of Juan Fernandez as a base and so delayed the attrition of supplies: but that is about all that it came to. He met or rather was met by Admiral Cradock, who was in inferior force—though seventy miles away he had an old battleship, the *Canopus*, coming up, which would have adjusted the balance, provided that the speed of the enemy could be kept down to suit the speed of the *Canopus*. Admiral Cradock attacked von Spee—presumably with that idea, that is to say, damaging the enemy enough to enable the *Canopus* to come up.

As we all know he failed: but he certainly did not die in vain. In the first place he saved the moral situation on the Chilian coast. He made it quite clear there that, no matter the odds, the British would attack the enemy. He lost the day and went to his death. But all the same he established absolute confidence in the British Navy even as he died. Later, of course, von Spee met Sturdee. He had used up most of his ammunition in destroying Cradock. He was annihilated. He fought bravely to the last: we can afford to credit the foe. Against overwhelming odds von Spee went under. With

attack on the Dardanelles, which resulted in the destruction of four old forts at the entrance, and thereafter a deadlock, because there was no military force available to take advantage of the success which had been gained. Of themselves ships are very impotent against forts. A ship can blow a fort to pieces fairly easily in certain circumstances, but unless the guns are actually hit they will remain undamaged, and it is merely a matter of clearing the debris in order to restore to the fort its original efficiency. In the Dardanelles, of course, matters were further complicated by the very narrow channel—a place ideal for the operations of mines and submarines, ideal too for the prevention of mine-sweeping operations. The wonder is not that the naval losses of the Allies were so heavy, but that they were not a great deal heavier still. The perils to be faced were very great indeed.

The subsequent more recent operations appear to be primarily military. Their inception, however, seems to have been mainly naval, the idea being to gain possession of the forts guarding the Narrows, so as to enable the Fleet to get through and thus into the Sea of Marmora and thence on to Constantinople, with the consequent free egress of Russian corn ships and the free entry to Russia of badly needed munitions.

THE MAINTENANCE OF COMMUNICATIONS

Throughout the war, in the Channel at home, in bringing troops overseas from the Dominions and from India, in taking troops to the Dardanelles and preventing Turkish re-inforcements, the British Navy has done an immense work, which because of its silent successfulness has always failed to obtain proper recognition. But for naval power none of these things could have been, not a single soldier from Britain Overseas could have taken part in the Great Empire War. They would all have remained impotent far away.

Thus far the defensive. In the North Sea, in the Baltic and in the Dardanelles British submarines have assumed the active offensive-defensive: but the entire fleet has really been doing the same thing. It is a detail whether the virtual paralysis of the enemy at sea has been accomplished in actual fight or by the mere threat of existence. The situation (to put the matter into a non-technical form) is akin to that of the police: the main

duty of the police is not to capture the criminal after the crime, but to prevent the crime being committed.

It is most absolutely essential to remember that this very circumstance of "no Trafalgars" is the hall-mark proof of British Naval efficiency—a standing illustration of the old proverb that "Prevention is better than cure." Humanly speaking, this war should see nothing of the nature of a Trafalgar, unless at the last moment the enemy makes one last grand suicidal effort with his High Sea Fleet—somewhat as Napoleon did when he sent Villeneuve out to Trafalgar. That, of course, is a thing which may conceivably happen. Should it do so the result is assured. But even after Trafalgar French privateers still preyed badly on British commerce. To-day—despite the submarine blockade—the British Navy has a surer grip on the seas. Its main duty is to ensure that the soldiers of the Empire, even from the uttermost parts of the earth, can come and go as they list and as may be necessary for Imperial needs.

This has been accomplished in full measure. In only one single instance of the millions of soldiers moved about, has a British transport been successfully attacked by the enemy. For the rest the British Navy has kept its watch and ward, under the dull and prosaic phrase of "maintaining communications." Put into more dramatic—but equally truthful—phraseology this means that the Navy: that is to say, the Navy of England and the Navies of Britain Overseas have kept the Empire one and indivisible where otherwise the Empire might have been split into a series of helpless units. This last, of course, was the German dream. The measure of Colonial support to the Empire is not in the tonnage of ships, nor in the material, nor in the number of men provided, nor even in deeds accomplished. Rather it resides in the moral effect of a world-wide Empire holding together, though parted hither and thither by thousands of miles of ocean. Even at the uttermost ends of the world, wherever the Germans sought to operate they encountered the British Empire. The cumulative effect of this was Germany's undoing. She started out to fight England. She found herself faced everywhere with The Empire. In days of yore The Empire was little more than a music hall catch-word and an empty phrase, and there is reason to believe that Germany took it at no more than that. She assumed "Britain

Overseas " as a dream. Too late for her she discovered her error—discovered how she had blundered into creating as a fact what hitherto had been only a dream.

This review would not be complete without some reference to the work of the navies of our Allies—work which is also mainly unobtrusive. The Japanese were chiefly instrumental in the capture of the German outpost in China, Kiao-Chau. We could probably have done it without their assistance; but, thanks to their help, what might otherwise have been a very weary operation was materially shortened. They claim Kiao-Chau as their reward. We cannot blame them. Of the French very little has appeared in print of late. Their work has been mainly confined to a blockade of the Austrians in the Adriatic and affording help to the British Fleet in the Dardanelles. There has also, however, been help in the Channel of which nothing has been heard. The co-operation of the British and French Navies has been complete. The Russian Navy has been more in the limelight. It has secured command of the Black Sea. In the Baltic it has been less successful, as owing to the immensely superior forces which the Germans are enabled to bring, it has been compelled to adopt the defensive attitude, and stories of its "victories" must necessarily be accepted with a certain amount of reserve. But though it may fail to achieve any very direct results, in so far as securing command of the Baltic is concerned, it has undoubtedly assisted the Allies by its menace, which has kept many German ships busy in Baltic waters. The Italian Navy has been mainly employed in re-inforcing the French Fleet which is blockading the Austrians in the Adriatic.

Taking things all in all, I am afraid that while crediting the Allies forces with all good intentions, we cannot go any further. To credit Britain Overseas with the successful result sounds absurd at the present moment. Taking just the bare actual facts into consideration I think that it is absurd. But when we come to consider ulterior issues *and results*, I think it will be found that it was British ubiquity which took the heart out of the Germans. As a German naval prisoner remarked, "The awful thing was that there were Britishers *everywhere*. It is not what they did, so much as the thing that they might do. It is the awful feeling that, go where you will, the British are somehow always in the way. Always some Gott damn Britisher in the way."

The Cost of the War

THE FIRST YEAR

BY EDGAR CRAMMOND, F.S.S.

Author of "The Finance of War," etc.



IN the first twelve months of the war, the loss of human life and the destruction of capital already far exceeded that of any war of which we possess a record. The Napoleonic War cost Great Britain £831,000,000, but this vast outlay was spread over a period of twenty years, and the average annual expenditure was at the rate of £42,000,000. The following table contains an estimate of the cost of each of the most important wars since 1815:—

War	Date	Loss of human life	Direct monetary cost
			£
Crimean	1854	785,000	340,000,000
Italian	1859	45,000	60,000,000
Schleswig-Holstein	1864	3,500	7,000,000
American Civil War :—			
Northern Army	1861-5	281,000	940,000,000
Southern Army		519,000	460,000,000
War of 1866 between Prussia, Austria and Italy	1866	45,000	66,000,000
Franco-German :—			
France	1870-1	150,000	507,000,000
Germany		180,000	135,000,000
Turco-Russian	1877-8	—	102,000,000
Chino-Japanese	1898	—	20,000,000
South African	1899-1902	68,700	270,000,000
Russo-Japanese	1904-5	485,000	503,000,000
Balkan Wars	1912-13	348,000	240,000,000

A variety of circumstances have tended to make the present war the greatest and most destructive in the history of the world, the most important of these influences being:—(1) the number of Great Powers directly involved; (2) the wealth and high economic development of the principal belligerents; and (3) the perfection and the destructive power of the naval and military armaments of the belligerents.

BELGIUM

Before the war Belgium was one of the most prosperous countries in the world. She had a population of 7,571,000, and her foreign trade in 1912 amounted to £356,379,000. Her national income was approximately £300,000,000, and her national wealth £2,400,000,000. Germany has destroyed the trade of Belgium and has reduced its population to beggary. M. Henri Masson has compiled a very interesting estimate (which was published in *The Times*) of the losses inflicted upon Belgium during the first eighty-two days of the war, the total amount of the estimate being £212,000,000. This loss has been materially increased since the end of October.

The population of Belgium has been seriously reduced. The refugees in this country are estimated to number 180,000, and a German wireless report early in the year placed the total number of refugees at 750,000.

Under the new Army Law, to which unhappily effect had not been given when the war broke out, the Belgian standing Army would have numbered 340,000 men, but it may be seriously doubted whether anything approaching this total was reached. Assuming that 200,000 men were mobilised, the direct cost to the Belgian Government at 10s. per man per day would be £100,000, say £36,500,000 up to July 31st, 1915. Assuming that 25 per cent. of the Belgian troops have been killed or permanently disabled, her total losses would be 50,000, and if we estimate the average value at £800 per man the aggregate loss under this head would amount to £40,000,000. This is of course exclusive of any estimate of the loss of civilian life, the data for the calculation of which are unavailable.

The total losses of Belgium in the first year of the war may therefore be summarised as shown hereunder:—

Direct cost of Belgian Army	£36,500,000
Loss of production, two-thirds of total	200,000,000
Destruction of property, &c.	250,000,000
Losses in human capital	40,000,000
Total	<u>£526,500,000</u>

This aggregate represents more than one-fifth of the national wealth of Belgium and nearly two years' national income.

FRANCE

The French Official Review of the War stated that at the beginning of January France had 2,500,000 troops at the front and 1,250,000 men in the dépôts. At the census of 1911 the population of France was 39,601,000, and the "active" population included 12,910,000 males. The war has, therefore, withdrawn nearly one-third of the whole of the male workers of France from production.

The direct cost of maintaining 2,500,000 men in the fighting line and 1,250,000 men in reserve may be put at an average of 8s. per man per day—say, £1,500,000 per day.

The amounts voted for war expenditure were stated in the *Journal Officiel* to be as follows:—August, £107,500,000, at the rate of, say, £3,400,000 per day; these figures included the cost of mobilisation. For September the expenditure was only £33,100,000, say, at the rate of £1,100,000 per day. For October the amount voted was £35,600,000, or at the rate of £1,200,000 per day. The expenditure for November may be estimated at £37,000,000, and that for December at £40,000,000, making a total outlay up to the end of December of £253,200,000, say, an average of £1,650,000 per day.

• The provisional credits passed by the Chamber in December for the first half of 1915 amounted to £340,960,000, which included £240,240,000 for the Army, and £13,500,000 for the Navy—say at the rate of £1,400,000 per day. On June 3rd, M. Ribot, the French Minister of Finance, laid before Parliament estimates for the public expenditure during the three months, July, August and September, amounting in all to £237,600,000, say at the rate of £2,600,000 per day, but this includes the civil expenditure, which averages about £650,000 per day. The war expenditure of France is, therefore, now about £2,000,000 per day. The direct

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expenditure of the French Government for the first twelve months may, therefore, be estimated as follows:—

August 1 to December 31, 1914 ...	£253,200,000
January 1 to June 30, 1915 ...	253,700,000
July 1915, say... ..	62,000,000
Total	<u>£568,900,000</u>

The indirect losses of France will be very great. The withdrawal of the bulk of the male population between the ages of 19 and 50 who were engaged in productive work must have a disastrous effect upon the productive capacity of the remainder of the male workers, and it would not be an extravagant assumption to place the loss of production due to this cause and the interruption of the foreign trade at one-half of the total national income, *i.e.*, one-half of £1,250,000,000, say £625,000,000.

The route chosen for the advance of the German armies on Paris embraced some of the most important manufacturing districts in France. The area of the twelve ravaged departments was 28,181 square miles, or 13.5 per cent. of the total area of France, and the population 6,906,000, or 17.4 per cent. of the total population. At the end of December the German troops occupied about 7,000 square miles of French territory. It has been computed that the Germans seized raw materials and manufactured goods in Northern France (especially wool, cotton, leather, metals, grease and oils) to the value of £50,000,000, and the total losses through destruction of property, etc., for the twelve departments has been estimated in the Chamber of Deputies at £160,000,000.

As might naturally have been expected, the falling off in the volume of the foreign trade of France has been very much greater than in the case of the United Kingdom, but the financial power of France is making itself manifest in the steady growth of the imports.

French losses in killed and wounded, *i.e.*, permanently disabled, up to July 31st, may be estimated at 15 per cent. On a total of 4,000,000 this represents 600,000 men. M. Barriol estimates the value of a Frenchman at £580, so that without taking into account the loss of life of civilians France's loss in human capital through the war may be estimated at £348,000,000.

The Cost of the War

(Summarising the conclusions arrived at above, the total losses of France, direct and indirect, up to July 31st may be estimated as follows:—

Direct cost of war to French Government ...	£568,900,000
Loss of national income	625,000,000
Destruction of property in occupied territory	160,000,000
Capitalised value of loss of human life ...	348,000,000
Total	<u>£1,701,900,000</u>

This aggregate represents more than one year's national income and about one-seventh of the national wealth.

RUSSIA

The total forces mobilised by Russia may be estimated to amount to at least 6,000,000 men, of whom about 4,000,000 are at present actively employed in the various theatres of war. The explanatory memorandum attached to the Russian State Budget for 1915, prepared by the Minister of Finance, M. P. L. Bark, stated that Russia's extra expenditure up to October 13th, 1914, was £178,500,000, at the rate of £2,400,000 per day. This period, however, covered the extraordinary expenditure in connection with mobilisation, and the daily expenditure now appears to have fallen to a lower level. On February 9th State Controller Kharitinoff informed the Duma that, from the commencement of the military operations until January 1st the total sum spent by the Russian Government on the war was 3,020,000,000 roubles—£302,000,000—say, at the average rate of £2,000,000 per day. The same Minister added that the war was then costing approximately £1,400,000 per day. For an average war establishment of 5,000,000 men this would give a daily expenditure per head of about 5s. 6d., which is a considerably lower average than any other Power can hope to attain. Assuming that the direct expenditure averaged only £1,400,000 per day from January 1st until July 31st, the direct cost of the war to the Russian Government up to July 31st would be £599,000,000.

It was inevitable that the war should have exercised a profound influence upon the foreign trade of Russia. With the closing of the Dardanelles, Russia's

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exports from the Black Sea and the Sea of Azov came to a stop, while the remainder of her imports and exports ceased with the suspension of navigation in the Baltic, with the exception of the inconsiderable quantities shipped *via* Archangel and Vladivostock.

The following table contains a statement of the foreign trade of Russia during the first five months of the war:—

(In thousands of £'s, 000's omitted)

Month	* Imports	Special Trade	* Exports	Special Trade
	1913	1914	1913	1914
	£	£	£	£
August	11,238	3,273	16,762	2,488
September	10,979	3,163	16,841	1,520
October	13,210	2,889	15,232	1,695
November	12,187	2,927	14,287	2,014
December	9,883	3,027	14,252	343
Totals	57,497	15,279	77,374	8,060
Decrease	42,220	73.5 per ct.	69,314	89.6 per ct.

* European, Russo-Finnish and Black Sea Frontiers.

For the first five months after the declaration of war Russia's exports were reduced by 89.6 per cent., and her imports by 73.5 per cent.

The stock of gold held by the Imperial Bank amounts to £171,000,000, and it represents 57 per cent. of the notes in circulation. This is a higher gold covering than that of the German Reichsbank.

Russia's losses in killed and permanently disabled up to July 31st, 1915, may be estimated at 20 per cent. on an average of 5,000,000 troops actively employed—say, 1,000,000 men. Taking the valuation of M. Barriol, viz., £404, Russia's losses in human capital may be estimated at £404,000,000.

The total losses of Russia direct and indirect up to July 31st, 1915, may be estimated as under:—

Direct expenditure of Russian Government	£600,000,000
Indirect losses, loss of trade, loss of production, loss of revenue, destruction in Poland	500,000,000
Capitalised value of loss of human life	404,000,000
Total	<u>£1,504,000,000</u>

This aggregate represents less than one-eighth of the national wealth of Russia and less than one year's national income.

ITALY

Although Italy did not declare war until the 23rd May, 1915, she was involved in a heavy outlay during the preceding ten months. Immediately after the outbreak of war in August, 1914, she mobilised a large part of her army and the whole of her naval forces, and her total outlay on mobilisation up to the time she declared war could not be less than £100,000,000. The war caused a very serious economic disturbance in Italy, the withdrawal of a large number of men from production and the transference of men from commercial production to the production of munitions of war had very much the same economic effect in Italy as it has had in this country. Moreover Italy's principal customers were involved in the war from the commencement and her trade returns showed a very heavy decline in the first few months of war. There was subsequently a substantial improvement, due largely to the enormous trade which passed through Italy to Germany and Austria, but now that this trade has been brought to a standstill her trade returns must be expected to show still heavier declines. For the first four months of 1915 the imports into Italy were valued at £40,413,000 as compared with £48,647,000 in the corresponding period of 1914. The exports for the first four months of 1915 were valued at £34,926,000 as compared with £33,124,000 for the corresponding period of 1914.

It may be estimated that Italy will mobilise at least 1,500,000 troops, and she may eventually call up 2,000,000. For an average establishment of 1,500,000 troops at, say, 10s. per man per day, her expenditure on the army is running at the rate of £750,000 per day or say, £273,750,000 per annum. If the naval expenditure be taken into account it is probable that the total direct cost of the war to the Italian Government will be at the rate of at least £300,000,000 per annum.

(The direct cost of the war to Italy for the year to 31st July, 1915, may be estimated as under:—

Mobilisation expenses and other outlay on the army from August 1, 1914 to May 23, 1915	...	...	...	£100,000,000
Naval expenses, expenditure on the production of war munitions and general outlay	...	...	...	50,000,000
May 24 to July 31, 1915, 69 days at £1,500,000 per annum				103,000,000
Total				<u>£253,000,000</u>

For the reasons stated above the indirect cost of the war to Italy will amount to a very considerable sum. The national income may be estimated at about £800,000,000 per annum and it would appear to be highly probable that the first year of the war has reduced this income to the extent of at least 25 per cent., say £200,000,000. The total direct and indirect losses of Italy in the first twelve months may therefore be estimated at £453,000,000.

AUSTRIA-HUNGARY

The Austro-Hungarian armed forces, including the Landsturm, may be estimated at 4,000,000 men, but it is probable that before the end of July a further 500,000 men have been mobilised. It may be further estimated that about 1,500,000 of this total are not now available owing to death, disablement, capture and sickness. In April, 1910, the Austrian Minister for National Defence stated in the Reichsrath that the cost of a future campaign for Austria-Hungary must be reckoned at 10s. per man per day. If Austria-Hungary is maintaining, say, an average of 3,000,000 men in the fighting line at a cost of 10s. per man per day, her average expenditure must now be running at the rate of £1,500,000 per day. On this basis we arrive at the following estimate of her total direct expenditure up to July 31st, viz.:—

July 31 to November 15, 1914	...	...	£175,000,000
November 15, 1914 to July 31, 1915, 258 days			
at £1,500,000 per day	...	...	387,000,000
Total			<u>£562,000,000</u>

The foreign trade returns show the disastrous effect which the war is exercising upon the economic system of the Empire. The imports for August, 1914, were valued at only 94,700,000 krone, as compared with 268,000,000 krone for August, 1913. The exports for August, 1914, were valued at only 30,400,000 krone, as against 215,000,000 krone for August, 1913. It is extremely difficult to get the Austrian trade returns, but there is reason to believe that there has been some recovery from the disastrous decline of August.

The direct and indirect losses of the Dual Monarchy will be even greater in proportion to its resources than those of her Ally. The national wealth of Austria-

BADGES OF RANK—ROYAL NAVY.

CUFFS.



Admiral of the Fleet.



Commander



Midshipman



Engineer Lieutenant



Admiral



Lieut-Commander



Engineer Vice-Admiral



Engineer Sub-Lieutenant.



Vice-Admiral



Lieutenant



Engineer Rear-Admiral.



Chief Artificer
Engineer



Rear-Admiral and
Commodore 1st Class.



Sub-Lieutenant



Engineer Captain.



Artificer Engineer



Commodore 2nd Class



Chief Gunner



Engineer Commander



Lieutenant Royal
Naval Reserve



Captain.



Chief Master-at-Arms.



Engineer
Lieut-Commander



Lieutenant Royal Naval
Volunteer Reserve.

The Cost of the War

Hungary cannot exceed £10,000,000,000, and its national income cannot be much more than £1,200,000,000. Over 4,500,000 men have been taken away from productive activity, and the whole economic and industrial fabric has been shattered. It is, therefore, a moderate estimate to assume that the national income has been cut down by one-half, say, to £600,000,000.

In order to estimate the capital value of men killed or permanently disabled I will assume a loss of 20 per cent. for the year ending July 31st, 1915. On an average war establishment of 4,000,000 this represents 800,000 men. Taking the valuation of M. Barriol, viz., £544, we arrive at a loss in human capital of about £435,200,000, without taking into consideration the loss of life of civilians.

Summarising the conclusions arrived at above, it may be said that the direct and indirect losses of Austria-Hungary up to July 31st may be estimated as under:—

Direct cost of war to Imperial Government	£562,000,000
Capitalised value of loss of human life ...	435,200,000
Loss of production	600,000,000
Destruction of property in Galicia, Bukovina, etc.	100,000,000
Total	<u>£1,697,200,000</u>

The above aggregate represents about one-seventh of the national wealth of the Empire, and over one year and a quarter's national income, and this without taking into account any question of war indemnities or the cession of territory.

THE GERMAN EMPIRE

The French Official Review stated that the total number of German men available for the war was 8,500,000 and of these about one-half, say, 4,000,000 men were at the Front at the beginning of the year. It is probable that a further 500,000 men have since been sent to the Front. Deducting the German losses during the current year, say, at the rate of 200,000 per month, the total forces now in the fighting line cannot exceed 3,500,000, while another 1,000,000 are in training and in the depôts.

There is no parallel in modern history to the economic condition which this vast displacement of labour will produce in Germany. In the first place we must

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consider the cost of maintaining 4,500,000 men in the fighting line and in the depôts and providing for the support of their dependents and of the dependents of the 2,000,000 men who have already been killed, wounded or captured.

At 9s. per man per day, an average number of 4,500,000 men would involve a daily expenditure of £2,000,000, or at the rate of £730,000,000 per annum. For the naval expenditure, including the cost of new constructions, repairs, submarines, fortifications, airships, etc., an expenditure of £50,000,000 in the first twelve months would not appear to be an extravagant estimate.

Assuming that in all 7,000,000 men have been mobilised and that they have on the average only one dependent each, this would make a total of 7,000,000 dependents to be provided for. The bulk of the cost of maintaining the families appears to be falling upon the Municipalities. According to *The Times*, Berlin alone was supporting 81,000 families of soldiers at the end of December. The allowances paid amounted to £95,000 in September, £130,000 in October, and £175,000 each in November and December. Allowing only 9d. per person per day the cost of maintaining 7,000,000 dependents would amount to £262,500 per day, say, £96,000,000 per annum. Notwithstanding the vast reserves of war material accumulated by the German Government before the war there must inevitably be an enormous outlay upon the provision of ammunition, guns, transport, horses, motors, harness, fodder, railway materials, entrenching tools, etc., and in all probability £100,000,000 would be a small estimate for this purpose.

In the first twelve months of war the direct expenditure of the German Government and the Municipalities may therefore be expected to be as follows:—

Army expenditure	...	...	...	...	£730,000,000
Naval expenditure	...	...	...	...	50,000,000
Relief of dependents	...	...	...	...	96,000,000
Replacement of war materials	...	...	...	...	100,000,000
Loans to Austria-Hungary, Turkey, Bulgaria					50,000,000
Total					<u>£1,026,000,000</u>

We must next take into consideration the loss of human capital. The total German losses cannot be less than (up to the end of July) 3,000,000 of whom

The Cost of the War

perhaps 1,500,000 have been killed or permanently disabled. Taking the valuation of M. Barriol, viz., £676, we arrive at a total sum of £1,014,000,000 as representing the capitalised value of the loss of life.

The figures quoted above do not, of course, include the indirect losses occasioned by the war. The most important items under this head are the loss of agricultural and manufacturing production and the dislocation of the whole industrial and economic system by the withdrawal of the flower of the manhood of Germany from productive activity. The Census of 1907 showed that there were 28,199,000 employed persons of whom 18,620,000 were males and 9,578,000 females. The number of persons employed in Germany in agriculture, industry, trade and transportation was as follows:—

Calling	Number of persons employed	Number of persons employed, including dependents	Percentage of total population	
			Persons employed	Persons employed including dependents
Agriculture and forestry	9,893,300	17,681,200	15.9	28.5
Industry	11,256,300	26,886,500	18.2	42.5
Trade and transportation	3,477,600	8,278,200	5.6	13.3
Total	24,617,200	52,845,900	39.7	84.3

From the above figures it will be observed that about two-thirds of the population of Germany are dependent upon her manufacturing industries, trade and transportation, etc., and about one-third upon agriculture. The number of employed persons included in the above table comprised a large number of female workers, and it is probably a conservative estimate to assume that the war has directly and indirectly already withdrawn one-third of the male workers of Germany from production. The withdrawal of such a vast proportion of the most active and efficient workers must inevitably reduce the productive capacity of the remaining two-thirds, because industries under modern conditions are so interdependent. Moreover, the suspension of the bulk of the foreign trade of Germany must have exercised a paralysing influence upon the home industries. It may be safely assumed therefore that the manufacturing production of Germany will in the first year of war be reduced from these causes alone to the extent of 50 per

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cent. Germany's manufacturing, etc., production and trade and transport earnings for 1912 may be valued at £1,350,000,000; 50 per cent. of this total is equivalent to £675,000,000.

Summarising the conclusions arrived at above it may be estimated that the total direct and indirect losses of the German Empire in the first twelve months of the war will be approximately as follows:—

Direct cost of the war to the German Government and	
Municipalities	£1,026,000,000
Loss of production	675,000,000
Loss of interest on investments abroad	25,000,000
Loss of earnings from shipping and transport services generally	80,000,000
Loss of earnings of German banking, insurance and mercantile houses engaged in business abroad ...	10,000,000
Capitalised value of loss of human life	1,014,000,000
Total	<u>£2,780,000,000</u>

THE BRITISH EMPIRE

When presenting the budget for the current financial year Mr. Lloyd George gave the following particulars as to the cost of the war down to March 31st, 1915:—

First four months	£102,000,000
Second four months	177,000,000
Advances to Dominions and Allies	52,370,000
Purchases of wheat, meat, etc.	28,416,000
Total	<u>£359,786,000</u>

On the same date Mr. Lloyd George furnished the House of Commons with two estimates of the cost of the war during the current financial year. The first, which was based upon the assumption that the war would last for six months longer, *i.e.*, until the 30th September, 1915, showed an expenditure of £638,000,000. The second, which was based upon the assumption that the war would last until March 31st, 1916, showed an estimated expenditure of £978,000,000.

Upon the basis of the actual outlay up to March 31st, 1915, and the estimates which have since been furnished of the expenditure after that date it may be estimated that our total war expenditure during the first year of the war amounted to at least £785,000,000.

A portion of this expenditure consists of advances for the purpose of assisting or securing the food supplies of the country which will be recoverable in whole or in part. A much greater proportion of the outlay represents advances to our Overseas Dominions and to our Allies, which will also be recoverable in a large measure. Allowing for these credits it is reasonable to assume that our net expenditure during the first twelve months will amount to at least £700,000,000.*

The indirect losses of the United Kingdom through the war have not been very great in proportion to those sustained by the other principal belligerents. About 3,000,000 men have been withdrawn from production and about 2,000,000 have been transferred from commercial production to the production of munitions of war. On the whole it would appear to be a reasonable estimate to place the loss of production occasioned by the war at about £200,000,000, say, a little less than one-tenth of the national income.

The war naturally affected our foreign trade very materially. In August, 1914, our exports were reduced by nearly one-half but there was a steady recovery and for June, 1915, the value of our exports was only 16.6 per cent. less than for the corresponding month of 1914. The imports were also materially affected by the war, but not to such a great extent as the exports. In the first month of the war they fell off by £13,613,000, or 24.2 per cent. For December, the decrease was only £3,560,000 or 5.1 per cent. During the present year there has been a rapid and continuous expansion of our imports, and the value of the goods imported in June was £76,117,000, or £17,836,000—30.6 per cent.—more than in the corresponding period of 1914.

The re-export trade was affected even more unfavourably by the war, but in common with the other branches of our foreign trade it has made a splendid recovery.

For the first six months of 1915 the imports were valued at £429,641,000 and the exports at £234,940,000, showing an excess of imports of £184,701,000, say, at the rate of about £370,000,000 per annum. In recent years the average excess of imports over exports has amounted to about £140,000,000 per annum. The question of financing the huge debit balance this year has naturally caused some anxiety. But there is no occasion

*See page 314.—EDS

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to take too gloomy a view of the outlook. Our greatest industry, shipping, is having a really good time notwithstanding the German submarine menace, and our investments abroad, which in years of peace produce an annual income of at least £200,000,000, will also help us materially to tide over our temporary difficulties. So far as the financing of our own war expenditure is concerned we could meet all our obligations with comparative ease, and it is owing to our having to act as Bankers to our Allies that there is such a heavy pressure on our money markets at the present time.

Our total direct and indirect losses in the first year of the war may be estimated as under:—

Direct expenditure of the British Government	...	£700,000,000
Pensions and allowances, capitalised value, say	...	800,000,000
Loss of production, say	...	200,000,000
Loss of income from services as world's bankers, etc.	...	50,000,000
Total		<u>£1,250,000,000</u>

The national wealth of the United Kingdom may be estimated at £16,500,000,000 and the national income at £2,140,000,000, so that the first year of war may be estimated to have cost an amount equivalent to about one-fourteenth of the national wealth and about seven-twelfths of the national income.

The total direct and indirect cost of the war to the principal belligerents up to the 31st July, 1915, may be estimated to amount to £9,912,400,000. Its incidence between the two groups of belligerents is approximately as follows:—

(In thousands of £'s, 000's omitted)

Power	Direct Expenditure of Govt.	Destruction of property	Capitalised value of loss of life	Loss of production and other losses	Total
	£	£	£	£	£
Belgium ...	86,500	250,000	40,000	200,000	526,500
France ...	568,900	160,000	348,000	625,000	1,701,900
Russia ...	600,000	100,000	404,000	400,000	1,504,000
Italy ...	253,000	—	—	200,000	453,000
British Empire ...	700,000	—	* 800,000	250,000	1,250,000
Total	2,158,400	510,000	1,092,000	1,675,000	5,435,400
Austria-Hungary	562,000	100,000	435,200	600,000	1,697,200
Germany ...	1,026,000	—	1,014,000	740,000	2,780,000
Total	1,588,000	100,000	1,449,200	1,340,000	4,477,200
Grand total both groups	3,746,400	610,000	2,541,200	3,015,000	9,912,600

* Estimated capitalised value of pensions, etc.

Owing to the absence of reliable data it is not possible to include an estimate of the losses of Japan, Serbia and Turkey, and the very considerable losses and expenditure of the neutral Powers.

Although Germany and Austria have been preparing for this war in the economic domain for more than a decade their position, in August, 1915, is becoming desperate. German shipping has been swept from the seas. Her supplies of war material are threatened and her paper money, notwithstanding the elaborate and ingenious schemes which have been adopted for the bolstering up of German credit, is already at a heavy discount.

The British Empire is a going concern. Its national wealth and national income have been less affected by the war than those of any of the belligerents. While Germany is utilising all her resources we are only just beginning to bring into effect our resources. On the whole, therefore, the peoples of the British Empire may face the future, so far as the question of economic exhaustion is concerned, with a feeling of profound confidence.



The Rally of the Dominions and What It Implies

BY EDWARD SALMON

*Author of "The Story of the Empire," "The Life of Wolfe,"
"The Life of Admiral Sir Charles Saunders," etc.*



THE British Empire, like the Russian Empire, discovered itself in the first days of August, 1914. As in a lightning flash, the discussions and speculations of years were brought to the supreme test, and the whole eleven million square miles of British territory, with their diverse populations, stood solid and compact, one in heart, one in purpose. The seas which divide the component parts of the Empire were, thanks to the British navy, seen to be so many flexible links in an indissoluble chain. The God of Battles is the greatest of alchemists and from the dross of party in every land where the Union Jack floated, issued as by magic the finest gold of patriotism. Germany has been guilty of many deadly crimes; the blight of her Kultur menaced civilisation, but we Britons of the Seven Seas at least owe it to her inordinate ambition and her ruthless methods, that we no longer have even a shadow of doubt as to the desire and determination of the British Dominions and British Dependencies to remain one with the Island Mother. Dr. Parkin tells us that twenty odd years ago, walking one evening in the park at Dalmeny, Lord Rosebery turned to him and said, "I sometimes think that nothing but a great war will ever federate the Empire." Lord Rosebery, there is good reason now to believe, was something of a prophet. When Sir Henry Parkes set out to accomplish the federation of Australia he relied for success upon "the crimson thread of kinship." It is the thread upon which the future of the British Empire itself hangs; it is a thread which

The Rally of the Dominions

binds peoples whose relations red tape might have strangled. Crimson thread *versus* red tape: in the great Court of History happily one verdict alone is now possible.

How far did the British Dominions beyond the Seas understand the character of the enemy at the moment they elected to make common cause with the Mother Country? It was not the fault of the Germans if they and we were not fully alive to their most deliberate and most persistent purpose. For many years the disciples of Treitschke, who preached the Prussian gospel that Might is Right, had been zealously engaged in educating the German people to believe that divine ordinance and their own strong arm were to secure them world-dominion. Bernhardt and a thousand professors had made it their business to educate the Junker and every schoolboy that England's day was drawing to a close and that the rich heritage of her centuries of enterprise and achievement was to fall full ripe into the mailed fist of Germany. This creed was part of the very being of every German: Lord Grey on one occasion was told by a German fellow-traveller that Germany claimed by right of her genius and her necessities, the reversion of the Empire which England, effete by self-indulgence, was no longer able or worthy to hold. Bluntly put that was the belief of nine out of ten Germans whether they lived in Berlin or Hamburg, or whether they had battered on the freedom of domicile which we have been in the habit of according to aliens desirable or undesirable.

That the British Empire would crumble at the first discharge from a Prussian gun was regarded by the Treitschkes and the Bernhardis as certain, and in order to make assurance double sure Germany had left unturned no stone which a more than Machiavellian capacity for intrigue might suggest as likely to serve her. In India, in the Far East, in South Africa, a propaganda of the most insidious kind was maintained; it is due to no lack of German intention if the United States of America have not been made a jumping-off place for the conquest of Canada, and we know to-day from General Botha and his colleagues that South Africa was to win independence with German assistance. When the Union Jack was driven from the country Germany, as they have since discovered, was prepared to give the deluded Dutch a small extent of territory to be known as the "Boer

Reservation." Like most criminals Germany overreached herself; the Boer leaders saw through the whole business, and lest they should be in any doubt as to Germany's intentions and respect for her plighted word, Belgium was provided as an object lesson. Germany's miscalculations were many: her greatest was as to the character of the British Empire, as a writer in *Der Tag* admitted in April last. His words are an Imperial testimonial:—

"We expected that India would rise when the first shot was fired in Europe, but thousands of Indians came to fight with the British against us. We thought the British Empire would be torn to pieces, but the Colonies appear to be united closer than ever with the Mother Country. We expected a triumphant rebellion in South Africa; it was nothing but a failure. We thought there would be trouble in Ireland, but instead, she sent her best soldiers against us. We anticipated that the 'peace at any price' party would be dominant in England, but it melted away in the ardour to fight Germany. We regarded England as degenerate, yet she seems to be our principal enemy."

The rally of the free democracies of the Dominions, of the natives of Crown Colonies, and of the fighting races of India to the support of Great Britain, a rally as spontaneous as it has been whole-hearted and complete, is one of the most remarkable events in all history. No Empire, ancient or modern, ever witnessed such a spectacle as that of the tens of thousands of men of all races and shades of skin, pouring from the West, the East and the South to take a hand, if need be to lay down their lives, in a cause which to them must have seemed whole worlds away from their daily lives. The only one of the British Dominions which did not instantly set about preparing to send men over-seas was South Africa, and that for a reason which redounds to the highest honour and glory of the statesmen and soldiers of the Union. Boer and Briton, in the grips of deadly conflict a dozen years before, with Germany active to aggravate their feud, were to-day to be companions in arms, in defence of the Union Jack against rebellion fostered by Germany, and for the capture of German South-West Africa. The wildest imagination could hardly have conceived that in a challenge thrown down by Germany to the

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British Empire, the Boer leaders would have assured the British Crown that it might safely leave its interests with them and that the British Government would have acted on the assurance without a second's hesitation. That is one of the brightest pages in a dark and sombre chapter in the world's history. From Canada and Newfoundland, from Australia and New Zealand poured in offers of help which in twelve months of war have materialised in the trenches in France and Belgium, in the rugged and inhospitable stretches of the Gallipoli Peninsula, in the deserts of Syria and Egypt, in the islands of the Pacific: the Australian navy, which was placed at the disposal of the Admiralty even before war was declared, has rendered memorable service. The rounding up of the *Emden* by the *Sydney* was an achievement which might have been eclipsed by the destruction of Admiral von Spee's squadron if the Admiral of the Australian fleet had had the luck to find him in the early days. As for India, Mr. Harcourt was told that there would have been risk of another Mutiny if the Indian native troops had not been allowed to come to Europe to fight side by side with the British and the Colonial forces. It is no mean thing that British Indians and Australians should have fraternised and learned to know each other in the trenches. Even Fiji insisted on sending men, and the Maoris, who in their day fought us as valiantly in New Zealand as the Boers fought us in South Africa, went into transports of joy, as trustworthy witnesses have told me, when permission was given them to form contingents for service beyond the seas. From the remotest island of the Caribbees or the Pacific, Mr. Harcourt said, he was inundated with pressing offers of men, money, goods, produce, everything, even aeroplanes, likely to be of use. The Falkland Islands sent a sum of money equal to £2 per head of the entire population, and Mr. Harcourt described how as Secretary of State for the Colonies he lived for six months in "the thrills and romance of thinly defended frontiers, of gallantly captured posts, of conquests and the reverse, of strategy and organisation, the tentacles of an impregnable and United Empire stretching out its embrace, unhasting, unyielding, the personification of the power of the seas."

From Australia came the assurance in August, 1914—which was reiterated explicitly twelve months later.

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—that the last man and the last shilling would be sacrificed if need be for the sake of the Empire and the civilisation for which it stands. Mr. Asquith in that soul-stirring meeting in the Guildhall on May 19th set out in detail the magnificent contributions in men, money and kind which have come from the Dominions and India for the relief of stricken Belgium, for the augmentation of the fighting resources of the Allies, for the comfort of the wounded and the sufferers by the greatest and most wicked of world wars. Precise figures of the Indian and Colonial contingents are naturally not available, but apart from what South Africa has done, we may gather from the speeches of Sir Robert Borden and others that the Dominions alone must have provided or have ready few short of half a million men. Up to May, India, according to Mr. Asquith, had voluntarily placed at the disposal of the Empire 28 Regiments of Cavalry and 124 Regiments of Infantry. And when in July last, General Botha completed the conquest of German South-West Africa what was the first thing the Union Government did? Not satisfied to have done so much it cabled an offer of heavy artillery and a contingent for service in Europe, which the Imperial Government promptly and gratefully accepted. Only the presence of General Botha himself in command is necessary to make the romance of it all, perfect in every detail; this for fairly obvious reasons, is unfortunately impossible. But that no touch might be wanting to illustrate the revolution which the 20th century has worked in inter-Imperial relations, Lord Kitchener himself in cabling congratulations to General Botha, said he would be warmly welcomed if he could come to Europe. Thirteen years earlier Lord Kitchener and General Botha were the rival chiefs who negotiated the Treaty at Vereeniging which brought the South African war to an end.

From Sir John French's despatches, from the official Eye-Witness and from Sir Ian Hamilton have come many glowing tributes to the devotion, the dare-devil courage, the indomitable spirit by which Canadians, Australians, New Zealanders, Sikhs, Gurkhas and the rest have added to the lustre of British arms. To the great work of General Botha, of General Smuts and of the Union of South Africa forces the Prime Minister himself bore eloquent witness when he asked the House of Commons on July 13th, to record its "grateful

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appreciation " of their services. The Canadians at Ypres in April, at Festubert and elsewhere, now withstanding a gas attack, now recapturing lost guns, now rushing trench after trench so far in advance of the general line that retirement was imperative, have shown that if, as Sir Robert Borden has said, Canada is not a military people, her sons are yet endowed with the finest of military qualities. And if the Canadians in Belgium and North-Eastern France have been splendid, so have the Australians and New Zealanders in the Gallipoli Peninsula: the story of the landing on April 25th is perhaps the most thrilling episode in our history since Wolfe captured the Heights of Abraham in 1759. Like that determining event in the fate of two great Empires, the affair was a supreme example of the combined naval and military operations which have carried the British Empire into every sea and on to every continent. The despatch in which General Sir Ian Hamilton tells the story is described elsewhere in these pages as an epic. As the Archbishop of Canterbury said at the service in St. Paul's on June 15th the fallen Australians and New Zealanders "are enrolled among the champions whom the Empire for generations to come will delight to honour."

The question has been asked many times, are Democracy and Dominion reconcilable? Can any one not deaf and blind to what the great free communities of the British Empire have done since August, 1914, doubt the answer? Democracy in its extremest form in the Dominions has been tested and not found wanting. In an address which I was privileged to deliver before the Royal Colonial Institute in February, 1915, I pointed to the thirty odd years during which we have talked of Imperial Federation and the disappointment some of us, ardent advocates of the movement in the 'eighties, have experienced that nothing has been done to give practical embodiment to the sentiment of unity. The Colonial and Imperial Conferences, the Tariff Reform movement with its special provision of inter-Imperial preference, and the creation, actual or proposed, of local navies for the Dominions, whilst these things never proved the urgency of some form of federation they also seemed only to throw difficulties and prejudices into sharper relief. It is not my intention to enlarge on them now; I mention them only to express

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a hope that like the party system at home and in the Dominions they may be relegated to the past, and that the crisis through which we are passing may be treated as an incentive to start afresh. The war has made it impossible we can return to the Imperial relations which were an unsatisfactory make-shift before. Will a real Imperial Parliament, a true Imperial federal system, emerge from this great conflict in which the Empire as a whole has poured out its best in the common cause? The Dominions came into the war hardly knowing what it was all about: and in February I ventured bluntly to state that when the danger has passed, they will say and will be entitled to say:—"You can hardly look to us to do this again under precisely the same conditions. We are prepared to fight for you, to throw all our worldly possessions into the scale for you, to die for you, but you must give us an opportunity of knowing the true inwardness of the cause for which we fight and expressing a preliminary opinion by sharing with you the knowledge of antecedent events; in other words, we want a voice in Imperial Councils and then you may trust us, knowing where we are, to take our full share of Imperial burdens, alike in peace and in war."

Sir Wilfrid Laurier, when Prime Minister of Canada, uttered the significant words:—"If you want our aid, call us to your Councils." On July 14th, 1915, Sir Robert Borden, his successor in the Premiership, was invited to attend a meeting of the Imperial Cabinet. "It was something more than a compliment," Lord Milner declared the next day: "it was an omen." There are many omens about, and if one mistakes not, happy omens.* Lord Milner as long ago as March last, insisted that the Colonies would have to be consulted in any negotiations with a view to peace. They were not consulted as to the war; they could not be ignored as to the settlement after the war. The Dominions would have welcomed an Imperial Conference in the spring of 1915; the Imperial Government did not see its way to call such a Conference, and Mr. Fisher, the Australian Premier, acquiesced. "When the King's business will not fit in with our ideas we do not press them," he said. There will have to be an Imperial Conference when

*India in September asked that she should be officially represented at the next Imperial Conference: the request was approved by the Viceroy and received with sympathy by the Imperial Government: a sympathy that will certainly be quickened by the cordial endorsement of the proposal by the Dominions.

The Rally of the Dominions

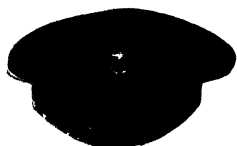
peace is in sight, and as a matter of fact Mr. Harcourt in Parliament on April 15th pledged himself that the Dominions' views would be considered. He made the belated admission that three months previously he had telegraphed to each of the Governors-General:—"Will you inform your Prime Minister that it is the intention of his Majesty's Government to consult him most fully and, if possible, personally when the time arrives to discuss possible terms of peace." With the promise, which Mr. Bonar Law has reiterated, that the undertaking will be observed in the spirit as well as the letter, that point may be regarded as satisfactorily settled. To go back on it would bring us to the verge of a disaster greater, as Lord Milner has warned us, than any which has overtaken the Empire since the American Colonies revolted in 1775.

But consultation as to peace is only one of the steps forward which have to be taken. We have to find a way by which the ideal foreshadowed by the late Sir Frederick Young can be attained:—"Government of the Empire by the Empire for the Empire." No longer must be permitted a condition of things which makes it possible for one like Mr. A. P. Poley, a student of federal systems old and new, to say:—"I sometimes think that the conception of United Empire is so great that statesmanship stands in fear of the problems that a closer constitutional union would create, but if its necessities are demonstrated, why should difficulties give rise to too much hesitation?" The problem must be tackled in the spirit of practical statesmanship shown by Sir John McCall, the Agent-General for Tasmania, who suggests the calling together at the earliest possible moment after the war, of a Conference of representatives of every party in the Empire, to discuss and determine what were best for the future. The ideal to be aimed at has been concisely stated recently by Lord Sydenham, who a quarter of a century ago suggested a similar Conference for the same purpose:—"We have to create a constitution of a federal character, in which absolute freedom in domestic matters, complete local autonomy, will remain to every part of the Empire which possesses it. But all matters of national concern—foreign policy, defence policy, inter-imperial trade and communications policy—must be dealt with by a separate and an Imperial body." Happily there is no reason to doubt that the solution foreshadowed by Mr. Bonar Law,

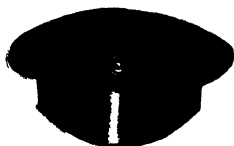
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then Unionist leader, when he stood side by side at the Guildhall with Mr. Asquith, then Radical Premier, will be attempted by him as Colonial Secretary in the Coalition Cabinet. The war will give the Empire peace and security, but it should give us something more. "The Dominions, the British Empire," said Mr. Bonar Law, "have not been created by the war, but the conditions have been changed by the war, and it is my hope—and if it is taken up in earnest while the metal is still glowing red-hot from the furnace of war, I believe it can be done—I believe that as a result we may see a Parliament of the British Empire, in which every part of that Empire, in proportion to its resources and its numbers, will share in the duty and the honour of ruling the British Empire." The war of 1870 federated the German Empire; the war of 1899—1902 made possible the Union of South Africa; from the world-war begun in August, 1914, must result the federation of the British Empire unless British statesmanship at home and in the Dominions is unequal to the constructive effort which patriotism, justice and common-sense are at one in demanding. Only by such an effort can Great and Greater Britons hope to erect the magnificent monument, imagined by Sir Robert Borden, which shall crown the labours of the past and realise the hopes of the future. It is our duty to ourselves and our children: it is our duty to civilisation and to the Allies with whom we have fought the bloodiest and the costliest war in history. The task will admittedly be one demanding the sort of "strenuous thinking" not usually associated with British statesmanship, but the difficulties, great as they are, are essentially not greater than those which the men who transformed the States of Canada, Australia, and South Africa into Dominions faced and surmounted. We want the real Imperial Parliament and the real Imperial Government which science as well as patriotism has made possible. An opportunity such as this world-war has provided is never again likely to offer itself for the attainment of an ideal which is dear to the heart of every loyal subject of King George V.

CAPS AND CAP BADGES—ROYAL NAVY.



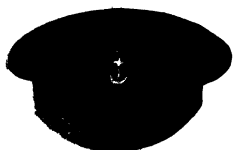
Admiral and
1st Class Commodore.



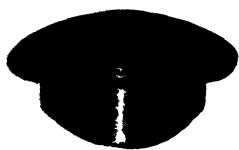
Petty Officer



Chief Petty Officer
Executive Branch



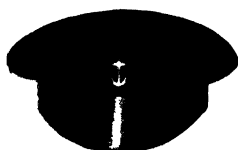
2nd Class Commodore.



Royal Naval Division



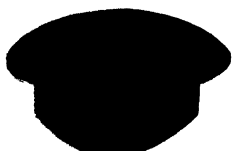
Chief Petty Officer
Civil Branch



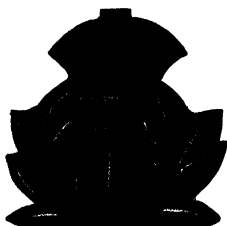
Lieutenant Commander and
Officers of Lower Rank



Cap Badge
Executive Branches.



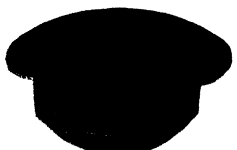
Medical Director-General.



Cap Badge
Civil Branches.



Electrician and
Engine Room Artificer.



Deputy Surgeon-General



Cap Badge
Royal Naval Air Service.



Ship's Cooks, Writers



Wing Captain.

A Business-like Empire

ITS DEVELOPMENT AND CONSERVATION

BY SIR LEO CHIOZZA MONEY, M.P.

Author of "Riches and Poverty," "The Future of Work," etc.



AMONGST the many striking object lessons which the great war has thrust before the attention of the British public, the neglect of their Imperial resources takes a prominent place. Those who have followed the war in detail have learned with amazement that important materials, the produce of the British Empire, were wantonly alienated before the war, and so neglected by our governing powers as to be beyond their reach when they wanted them to carry on hostilities. This sounds almost too bad to be true, but most unfortunately it is only too true. Take, for example, the important metal, nickel, which is a most essential military metal. It is combined with copper to form the outer casing of the modern pencil-shaped rifle bullet, and it has also other important uses. One of the best nickel supplies in the world is situate in the Dominion of Canada. One would think, therefore, that at least as far as nickel was concerned the British Empire in war would be in particularly good case. We should have, the intelligent man would imagine, plenty of nickel for ourselves, while able to deny that plenty to the enemy. Examination of the case unfortunately shows that nothing could be further from the truth than this intelligent conception of possibilities.

The United Kingdom which, in recent years, has contrived to save some £200,000,000 a year for investment outside its waters, could apparently find neither capital nor enterprise to develop the nickel of Canada. The nickel ore has been exported from Canada to the United States, because the Dominion herself has no nickel refineries. In America the nickel is dealt with by a foreign corporation. Consequently Britain finds herself at war and requiring nickel, but unable to control the

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nickel of its own Empire. The whole of the story cannot be stated here and now, but what I have been able to say is true. I believe that many people in Canada are indignant at the situation which obtains as I write, and I do not wonder at their indignation, but how amazing it is that such a position should obtain.

Take an even more extraordinary case, that of zinc. The United Kingdom has very little native zinc, only producing from its own ores six thousand tons per annum. It has allowed the monopoly of the European zinc trade to get into the hands of Germany. It is true that Germany possesses a good deal of native zinc, but Germany was not content with that. She looked about in the British Empire and found a splendid supply of zinc in Australia. The Broken Hill Silver-Lead Mines accumulated over many years an enormous quantity of zinc residues. The Germans knew how to utilise these, but we did not, and they made a contract with the Broken Hill Mines to take up all their zinc concentrates until the year 1921. Thus, when war broke out we found ourselves as an Empire under contract to supply an important war material to an enemy country because our own industrial captains and capitalists had not had the enterprise to deal with the stuff themselves. When the war began the German contract of course went into the melting-pot, but that did not free us to use the Australian zinc, because we had not big works capable of using it. Therefore it had to go to the United States, another foreign country, in order that that foreign country might smelt the zinc and supply us with what we sorely needed. If the matter were not so serious it would be possible to get a good deal of humour out of this story.

The fact is that while we boast of our capacity for running an Empire, there has been a good deal more luck than judgment in the development of our Imperial affairs. The loss of the American Colonies was a folly which taught us wisdom in Colonial politics, but on the economic side little of judgment and nothing of forethought has been applied to the magnificent resources of some of the fairest and finest lands in the world.

The eleven million square miles of British Empire form one-fifth of the world's land surface. The peoples of the British Empire, according to the careful estimate made by the Board of Trade, numbered 345 millions

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in 1891; 385 millions in 1901; and 117 millions in 1911. In 1915 the Imperial population is probably about 430 millions, or about one-fourth of the entire population of the world. A large part of the area, but only a small proportion of the population, is gifted with complete self-government. The British self-governing Colonies have an area of 7,446,000 square miles and a population of about 19,000,000 people. Thus the British Imperial Government is still directly responsible for the control and development of four million square miles of area and of 411 millions of people. It is a charge and a trust for which we are responsible not only to our own posterity but to the world at large. It is, after all, a small world that we live in, and when one Government has in its hands the destinies of so much territory, it ought not to neglect the development of so great a part of the world's resources.

Some part of the Empire lies in the tropics, and as to this it may be pointed out that recent scientific research holds out the hope that it may be freely utilised and even colonised by white men in the future. Now that some of the worst diseases of the tropics, such as malaria and yellow fever, have been found to be insect-borne and capable of control, we need no longer resign the hope of doing economic work in regions which possess a continuous harvest-time. The success of the Americans at Panama is proof of what can be done under the new conditions which have been created by science.

I am not one of those who believe that any considerable influence upon Imperial economic development can be exerted through the medium of preferential tariffs. In so far as a Colony possessing a Customs tariff for purposes either of revenue or protection, reduces that tariff in favour of the Mother Country or of other parts of the Empire, there is not a word to say against it. It is true that if a Colony such as Canada is possessed with the economic doctrine that it is necessary to impose considerable duties upon imports in order to gain and maintain essential industries, it is only too likely to make its minimum or preferential tariff high enough to give it the protection in which it believes, so that any higher scale nominally scheduled for imposition upon foreign goods must be more or less decorative. Nevertheless, it is not well to look a gift horse too closely in the mouth. In some parts at least such a preferential

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tariff as that of Canada is of advantage and benefit to the United Kingdom exporter. It would be unfortunate, however, if aspirations to give the British Empire a fuller economic development and to give unity to its far-flung dominions, soared no higher than the clumsy and dubious expedient of setting up a tariff in each separate part of the Empire and chipping bits off it in favour of other parts of the Empire.

If British Imperial resources are to be fully and properly utilised for the benefit of our teeming peoples, we must in the first place seek to gain the faculty of dealing with large problems in a large way. In our little islands in the North Sea we have failed to keep pace with the growth of scale which has come to mark the world's economic operations. This failure has resulted from our insular position and from the very fact that our islands have necessarily presented a small field of endeavour. I do not know if this is a sufficient excuse, but it is the best that I can find.

In many of the major industries the British industrial establishment has fallen relatively to that of Germany or America. This is true not only of trades in which we had no particular natural advantage, but of trades such as the iron and steel industry where our geographical situation and magnificent power supplies gave us commanding advantage. It was this failure to grasp scale and proportion which led, in the years before the war, to the neglect of armaments—a neglect which went perilously near disaster. Many people, even thoughtful people, did not realise, for example, that Germany had in the early years of the twentieth century applied to the Navy a large-scale treatment which had become a common-place in connection with many of her industries.

The German Naval Laws of 1900-1912 set up a new standard of naval strength. Many British public men could not be induced to face the fact. They were as unaware that Germany was attempting to take the lead in naval matters as they were innocent of the fact that Germany had already left us far behind in iron and steel, engineering and electrical work, leather, chemicals, zinc, and many other things that might be named. It was incredible to many English minds that it could really be possible for Germany to build a bigger fleet than we had, for they had not con-

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ceived that the "big" British Navy of not many years ago was not really big at all on the modern scale. So it came about that it was possible to see in the House of Commons, as I saw in the years immediately before the war, a reluctant audience listening in coldness and distress to the speeches of a First Lord of the Admiralty who realised the danger.

I have said that the war has brought its lessons, but I doubt whether one man in ten thousand in the country yet understands that before the war Germany had secured the control of the greater part of the world's metals apart from iron and steel, and that in the iron and steel trade she had an output which was dwarfing ours by comparison and steel-works with which we had none to compare. It is a big measuring rod that we must apply to our Imperial affairs if we desire to do them justice. There must be an end to pettifoggery in a world which is learning to deal with things on a world scale. When you are dealing with the development of eleven million square miles of territory it is useless to think in thousands or in hundreds of thousands.

The welfare of our posterity is at stake in the matter. Great as are the resources of the Empire, we cannot and must not allow them to be despoiled and wasted. It is the case that in connection with many of the metals supremely useful to man, the best of the world's supplies has been already mined. The reason why Germany, possessing so much native zinc, stretched out her hand to secure the zinc of Australia, is that she desired to conserve her own metal resources. That is an object lesson for the thoughtful Imperial citizen. We cannot afford to waste anything that the Empire produces, and in especial it is necessary to conserve its minerals and metals, for they cannot be replaced.

It is a profound mistake to suppose that because the Imperial heritage is vast it can with impunity be wantonly exploited. The rise in prices which occurred before the war, indeed, was in large part due to the fact that the world's demand for many essential materials had increased more rapidly than the world's supply. Mankind as a whole is answerable for the manner of use of the world as a whole, but we are responsible for one-fifth of the world. As far as the world at large is concerned, its proper common development is hindered by racial divisions of interest which make it difficult for

concerted work to be done. Within the British Empire, however, we have the inestimable advantage of being able to make common plans for mutual advantage. What it is difficult for the world as a whole to do ought not to be difficult for the British Empire to do. It is possible for us to bring under constant and continuous survey the entire resources of the Empire and to organise every device and aid afforded us by science to produce wealth from those resources, with due regard to posterity.

When we survey the world as a whole we see that its fertility and its mines are alike being consumed with amazing speed and with little regard for any but selfish commercial interests. As to fertility, large parts of the magnificent western prairie of America have been robbed of their virgin fertility and deserted. The same fate threatens considerable parts of the Canadian prairie and the plains of the Argentine. The timber of the United States has been so ruthlessly exploited that the Chairman of the National Conservation Commission of America, the body which was set up by Ex-President Roosevelt to do for America what I am pleading here should be done for the Empire, estimates the duration of the American forests as "not more than thirty-three years." Yet the American forests were once amongst the finest in the world. Similarly, if we turn to Chili, we find that the nitrate beds which at present manure so large a part of the world's cultivated lands, are threatened with exhaustion in very much the same space of time as the American forests. Other sources of nitrogen, as has been pointed out again and again by leading scientists, are exceedingly precarious; yet without nitrates the ever-multiplying peoples of the world would perish for lack of flesh-forming food.

In that large part of the world which is ours, we have the chance to do the best that can be done with the resources given to Man. We ought to treat it in what some people call a "business-like" way, but in what I prefer to call a scientific way, for few business men, at least in this country, are yet scientific. The different functions of the Empire need to be co-ordinated and made our chief study.

I have referred to Mr. Roosevelt's Conservation Commission. It is beginning to present most valuable and informing reports to the American people, and I doubt not that they will be acted upon to preserve

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American natural wealth for posterity. We need for the British Empire a similar body—a permanent Commission of gifted men charged with the constant survey of the whole problem. We can imagine such a body reporting periodically to an Imperial Conference raised to the dignity of an Imperial Parliament, which would devise practical measures to carry out Imperial economic development. A small but hopeful beginning has been made in this direction. At the Imperial Conference of 1911 Sir Wilfrid Laurier carried a motion urging the appointment of "a Royal Commission to survey and report upon the natural resources of the British Empire, "the development attained and attainable, and the facilities for production, manufacture, and distribution, the trade of each part with the others, and with the outside world, the food and raw material requirements of each, and the sources thereof available."

This resolution was acted upon, and a Dominions Royal Commission was set up which has done a good deal of work in investigating the economic resources of the self-governing Colonies. The war has buried the work of this body, but the conclusion of peace must see it taken up again and pursued with increased vigour. It is not only the self-governing Dominions which need attention. India and the Crown Colonies need far more attention than has ever yet been paid them. We have not done enough for Indian native industrial development, and as for our African and other possessions, we seem to be well content to hand over their resources to private capitalists for exploitation as though the British people had no right to benefit by their possessions—as though, indeed, the word possession was in this connection a merely nominal term.

- It is important, however, that the British Imperial Government should have due regard to the development not only of the Britains beyond the seas but of the United Kingdom itself. It is only too common to see Imperial subjects treated as though Britain herself were not the centre of gravity of the whole scheme of Empire. We must never forget that if wealth and power are not maintained here at the centre the Empire will be resolved into its factors.

It is necessary for British capital to be employed beyond the seas if the Empire as a whole is to be thoroughly developed. On the other hand, if British

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capital overlooks the United Kingdom, and goes abroad to seek a higher rate of interest than can be obtained at home, the powers of the United Kingdom will fail for lack of nourishment. In the years immediately preceding the outbreak of war (indeed, in the very month before the war), I again and again directed public attention to the undue flow of capital from the United Kingdom to places abroad. Here is an analysis of the capital issues publicly made in the United Kingdom in the year before war broke out, as estimated by *The Statist* :—

UNITED KINGDOM PUBLIC ISSUES OF CAPITAL, 1913.

(Millions of £.)

Class	For United Kingdom	For British Possessions	For Foreign Countries	Totals
Government	6.1	26.9	28.0	61.0
Municipalities	0.9	14.8	8.5	24.2
Railways	4.9	37.4	30.8	72.2
Industrial, Commercial, etc.	38.2	19.6	30.7	88.5
Grand Totals	49.2	98.7	98.0	245.9

According to this estimate, which is sufficiently accurate for the purposes of my argument, of the £250,000,000 or so of capital put up in the United Kingdom (apart from private investing) in 1913, only about one-fifth was for home purposes. Eight-tenths of this great amount of capital went out of the country to develop foreign countries and British possessions. The capital that went abroad was divided almost equally between foreign countries and various parts of the British Empire. The British Empire as a whole—the United Kingdom and its possessions together,—obtained £147,900,000, while foreign countries obtained £98,000,000. If we merely have regard to this division between the Empire and foreign countries the case is not sufficiently satisfactory. If, however, we have regard to the fact that foreign countries actually obtained twice as much of the publicly subscribed capital put up in 1913 as was obtained by the United Kingdom herself, the figures can only be regarded as deplorable.

We see that in 1913 British investors subscribed, for United Kingdom public uses of capital, about £6,000,000 in the year for Government purposes, less

than £1,000,000 for municipal purposes, only £4,000,000 for railways, and a little more than £38,000,000 for industrial commercial undertakings. That amounts to grave neglect of home undertakings and of the home market, a neglect which is reflected in our disastrous lack of certain commodities during the war.

I assert without fear of just contradiction that if the British public thoroughly understood some of the straits to which we are put in the war they would never again consent to the lack of control of investment which has obtained in the past. I have referred to the case of zinc—a case which simply means that before the war the capital which went abroad ought to have remained at home to give us a zinc industry commensurate with our great requirements. With the bad case of dyes the public is only too unhappily familiar, although it knew nothing of the circumstances before the war. With the aid of the Government a big dye company has been built up to remedy the neglect of capital to invest in this trade. Let me give another instance. Most people know that the greater part of our butter comes from abroad. In late years, owing to the work done by German chemists, it has been found possible to utilise nearly every known vegetable oil to make the butter-substitute known as margarine. We are an industrial nation, and yet we were content for the margarine industry to be chiefly developed on the Continent of Europe. Germany made her own margarine, but we drew most of ours from Holland. So it falls out that in the middle of a terrible war, for lack of oil-producing plant and for lack of margarine factories, we find ourselves compelled to send the oil materials of our Empire to Holland on guarantee that the Dutch send the material back to us as margarine. Was ever such a comedy played in the industrial affairs of the country which Napoleon so mistakenly called a "nation of shop-keepers?" Does anyone imagine for a single moment that if the resources of the British Empire had belonged to Germany she would have allowed herself to be in such a position in time of war?

Let me give another illustration of the same sort of thing. The Germans produce, from materials almost exclusively obtained from the British Empire, a most valuable disinfectant known as "thymol," which most of us used before the war in complete ignorance as to its origin. The war broke out, and we found ourselves

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lacking thymol because it is an enemy manufacture although in itself a friend of man. It is the case of zinc, the case of nickel, the case of margarine, over again. It is the case of a hundred modern scientific industries that British capital has incontinently deserted them and left them to German brains and capital to develop. So it came about that England drew from Germany in 1913 an amazing quantity of goods, from sugar to chemicals, from steel to leather, from buttons to zinc, from dyes to pianofortes, from enamelled ware to toys, valued at over £80,000,000:—

IMPORTS OF MANUFACTURES INTO UNITED KINGDOM FROM GERMANY IN 1913.

	£
Apparel	1,300,000
Motor-cars and motor-cycles ...	1,500,000
Chemicals	4,000,000
Cotton goods	7,400,000
Leather and leather goods ...	3,200,000
Machinery	2,300,000
Iron and steel	7,500,000
Zinc and zinc manufactures ...	1,700,000
Silk goods	2,400,000
Skins and furs (dressed) ...	1,300,000
Toys and games	1,200,000
Woollen goods	2,600,000
Sugar	10,900,000
All other manufactures ...	20,700,000
Other goods	12,400,000
Total	£80,400,000

And while we drew this immense assortment of manufactures and other goods from Germany, we sold to Germany in the same year manufactured and half-manufactured articles worth only £27,000,000, one-half of which is composed of cotton and woollen yarns (our total British exports to Germany in 1913 were worth £40,700,000, or about one-half the value of our imports from Germany). It would be the height of folly not to have regard to these considerations in studying the affairs and reviewing the economics of Imperial development. The strength of the Empire largely depends, and must for long largely depend, upon the energy exerted at its centre. The British investor must in future have greater regard to Imperial necessity than in the past and especially he must have regard to the full and proper development of the United Kingdom

A Business-like Empire

itself. There is action and re-action between the various parts of the Empire, and if by wise fostering industry is promoted at the centre, then the ends of the Empire will also benefit because their resources and materials will be called upon by virtue of the development in Britain herself. We ought not to desire, however, to restrict the industrial development either of the self-governing Dominions or of the remainder of the Empire in accordance with the false ideas of the old Mercantile System, some parts of which were reflected in Mr. Chamberlain's early preferential proposals. The United Kingdom possesses what many parts of the Empire do not, a great coal supply, which makes it the best place in the Empire to use much of the Empire's material. That is an economic fact of the profoundest importance, and because of it, and not because of any stupid and clumsy desire to restrict industrial output in the outer Empire, we may properly desire to see Imperial materials brought home for economic development. We want, for example, to see the oil-seeds and nuts of British Africa brought to Europe, not for the special benefit of the Continent, but to build up a great industry in the United Kingdom.

I confess that I do not know how such effective and proper economic development and control can be attained without radical changes in Governmental methods. As to home industry, the United Kingdom badly needs the establishment of a well-dowered and generously equipped Ministry of Commerce, charged with the active stimulation and development of British industry. Such a body could not allow the melancholy but true stories which I have related to remain true. The Minister at the head of such a body would as much deserve impeachment, if he left Britain without a zinc industry, or without a dye industry, or without a proper chemical industry capable of supplying explosives, as though he were a Minister of War caught in the act of keeping the Navy short of shells. For the purposes of the war we have had to set up a high explosives Committee to save us from disaster, simply because before the war we had a chemical industry which was insignificant save in relation to the alkali branch. It was not necessary for Germany to do any such thing, because war found Germany in the possession of a giant chemical industry built up by scientific method and fed lavishly with capital by far-seeing men. II

repeat that I cannot imagine a Minister of Commerce worth the name content to see our country lack industries of essential importance.

But if there is to be a proper balancing of economic forces as between the United Kingdom and the outlying parts of the Empire, then we must have either Imperial federation or some Council of Empire in constant touch with an Imperial Development Commission. I picture such a Commission constantly surveying the field of enquiry, aided by the first scientists of the Empire, counselling where enterprise and capital should be directed, studying the supplies of materials and their economic use, and seeking ever to make the most of our eleven million square miles of Empire in the interests of its hundreds of millions of inhabitants. I can conceive no greater honour for a man than to serve such a body. I can see also in such an institution the ennobling of industry and of commerce—the final realisation of the conception that the supply of the means of life, to a great people is a task demanding the faithful services of its best men.



The Mecca of the Dominions

BY TAUNTON WILLIAMS



IF one were asked to select the three capitals which mirrored the soul, the traditions and the temperament of a great people most faithfully, the choice would probably fall upon Rome, Paris and London. The distinctive attributes of this trio can best be measured by comparison with other metropolitan cities—Berlin, Petrograd, New York, the City of Constantine. Each may be no less the hub of the national life it represents, the centre from which radiate the influences moulding thought and progress. Nevertheless one can imagine them being superseded, being relegated to a subordinate place for commercial, climatic, topographical, or other weighty reasons. The mind refuses to imagine alternatives to Rome, Paris or London. The secret of that unchallengeable supremacy is continuity. The continuity of London, "this Imperial City," as Sir Robert Borden called it when receiving its Freedom in July last, is one of its most fascinating aspects. There are no pre-London records in our history. Archæology has found no period when the slopes dominating the lower river did not attract settlement. And the advancing centuries have seen no break in the links which through the Metropolis connect the first pile-dwellers on the banks of the Fleet with the pioneers and builders of the British Empire. It is conceivable that the commercial centre of the Empire might some day shift, and Winnipeg or Vancouver become the main artery of exchange and world-distribution. Or again, some cosmic lurch might make this climate too inhospitable for a crowded, thriving community, but even then I refuse to contemplate Macaulay's New Zealander gazing upon the forgotten, meaningless fragments of deserted London. London can never be forgotten, can never be superseded in sentiment at least. It will remain for all time the Mecca of Empire-lovers, if they have to make their pilgrimages over perennial ice-fields and frozen seas.

As I have said, London has no beginning in the history of the Motherland. If I assert with equal confidence that she will have no ending I have only my faith as justification. What, however, is the purpose of this article is to attempt to show why this particular strip of river-front should have asserted, maintained and developed its claim to metropolitan eminence throughout all the upheavals and cataclysms, racial, dynastic and political, which have disturbed and readjusted communal life on these islands. When man first began to migrate towards the inhospitable mist-bound northern flanks of Europe, he was in all probability a misanthropic savage, both a hunter and an object of the chase. We may place him chronologically somewhere in those nebulous æons known as the palæolithic period and as occupying a subordinate place in the scheme of the natural world. From the little we can assume of Great Britain in pre-historic times, we may picture a land of swamp and trackless forest with widely separated uplands where nature left clearings for flocks to graze and nomad tribes to pitch their summer camps. These, we may believe, were the spots first inhabited by our rude progenitors, who sought the line of least resistance in their fight for security and sustenance against an antagonistic world. Just such a spot would be the pristine site of London City. Those who came when Britain was still part of the Continental system would follow the great waterway connection between the Elbe and Rhine and the Thames and Medway. Those who came later in coracle and raft, when a subsidence of the earth's crust had formed the Channel bed, would penetrate inland by the Thames, and steering precariously through the sandbanks and shallows of a desolate waste, would find rising amid endless swamp and forbidding forest a natural haven with the means for human support and defence ready to hand. On the east and west of the rising ground were the tributaries of the Thames, the Wall-brook and the Fleet. South the main waterway at high tide spread over the low-lying areas now forming Bermondsey, Lambeth and Battersea, and at low tide left them intractable morasses. Chelsea and Pimlico would continue the area of desolation and at Finsbury on the north another vast lagoon would drain into the Fleet. For the rest, dense forest land stretching to the unknown.

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Now as a natural stronghold this site of London City must have been incomparable and as such have impressed primitive man. The waters on every side would abound with fish and there would be safe pasturage for the scanty livestock. It stood athwart the Thames highway and barred the northern road to the invader from the Kentish coast. And so there have been found in the bed of the ancient Fleet and many feet below the surface of modern Finsbury traces of the neolithic lake-dwellers, who built their piles from the steep banks and out into the shallow waters, to be succeeded by the more methodical defences of stockades and fosses, with which the later-coming Celts protected their more settled communities. We can gain some impression of what this British camping ground must have consisted from Cæsar's well-known description of Cassivellaunus' stronghold, which indeed many of the most learned authorities have identified with this very site. The choice lies between London and St. Albans, and as there is little or no historical warrant for the preference given to Verulam, beyond the fact that it was later a Roman camp, I prefer to believe that the superior defensive possibilities of the Thames site decided the British leader to make here his great stand against the Roman steam-roller. In this connection it is interesting to remember that, according to eminent ethnographers, it is these Celtic ancestors and neither their Roman nor succeeding conquerors who have left their stamp upon the people of Greater London. The isolation of that northern strip of Thames-side, which made it so admirable for defence, served to keep it a community apart through the succeeding centuries.

The civic interest of London, however, begins with the coming of the Roman. Before that date there were tribal communities, tribal laws and tribal institutions, but they would inculcate none of those ties and sentiments of citizenship which translate themselves into permanent monuments and traditional attachments. On the other hand the first instinct of the Roman was to create centres of government and commerce in a new province. From and to these centres would spread the wonderful highways, which enabled the imperial legions to concentrate at any disaffected area and the developed wealth of the country—the tin, lead, iron and wool—to be brought to the sea for transhipment to the Eternal

City. London was one of many such centres—a camp and an emporium. It was in no sense the capital of a province: it did not take precedence of other cities like York and Lincoln. It was just a city of the Empire like the rest taking its orders from Rome. At first purely a military centre, its commercial advantages would have been early manifested to a people long habituated to marine transport, both for their food-supplies and the luxuries of life. Let me quote a picture of how the Celtic settlement on the Thames must have presented itself to the invading host of Aulus Plautius as they marched northward from the coast. The description appears in Dr. Guest's *Origines Celticae*. "When the Romans came down the Watling Street to the neighbourhood of London they saw before them a wide expanse of marsh and mudbank, which twice every day assumed the character of an estuary sufficiently large to excuse if not to justify the statement in Dio Cassius that the river there emptied itself into the ocean. No dykes then retained the water within certain limits. One arm of the great wash stretched northward up the valley of the Lea, and the other westwards down the valley of the Thames. The individual character of the rivers was lost."

Roman London at first was essentially a stronghold, surrounded by massive walls. The area of the Citadel, or Prætorium, might be conjectured as originally extending in an oblong form from Great Tower Street to Dowgate Hill, at the foot of which ran the Wall-brook, then a swift and considerable stream. Later the line of the walls ran from the site of the Tower straight to Aldgate: thence by an angle to Bishopsgate, where it turned eastward to St. Giles's Church and then south to Falcon Square. A westerly turn was then taken to Aldersgate, running under Christ's Hospital and on to Giltspur Street. The wall then crossed Addle Street, and traversed Upper and Lower Thames Street to the Tower. A little to the east of the Citadel was erected the first London Bridge, remains of the wooden piles of which were found in the course of the excavations when the old bridge was pulled down about a century ago. We have no reason to assume that the plan of the City differed from the model in favour throughout the Empire. Outside the walls would extend the villas and farms of the wealthier classes, but always adjacent to

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the main roads, which were in the fullest sense the vital arteries of the Roman system. The merchant classes would be mostly foreign, disappointed perhaps in the yield of mineral wealth with which rumour had credited the remote islands, but faring well enough by the export of oysters, hides and young slaves for the Rome markets, bartering these for the cargoes of the motley fleets which lined the wharves and quays of the busy waterway. The most singular characteristic of this civic culture is the little influence it appears to have exercised beyond its own environment. No systematic attempt was made to develop the interior country or to bring the savage subject tribes within the pale of a higher civilisation. Beyond exacting tribute from them, and repressing rebellious manifestations, the Romans left the Celtic population much as it found it—crude, barbarous and disorganised.

There is no reason, however, to believe that all vestige of this urban activity disappeared with the calling home of the legions, or that there is no continuity between the London of the Romans and the life of the Capital as it emerges from the first dark centuries of Saxon conquest and occupation. Nor is it correct to suppose that the menace of these rovers from the Frisian wastes developed as an early result of the collapse of the imperial domination. For at least two centuries before this breakdown the encroachments and settlements of the Northmen must have been a continuous process unheeded by the centres of Roman authority. And it is practically certain that the womenfolk at least of these colonists were drawn from the older British stock, either by force or by consent. Thus in the eastern and south-eastern areas the population would tend to become Celto-Teuton rather than purely Anglian in the east as it remained purely Celtic in the west. It is only when the Teuton characteristics become the more assertive that our history begins and we see a national type developing from this racial fusion. Now one of the most marked characteristics of the Saxons, as warriors first and then as settlers, was their aversion from urban life. A city interested them only to sack. They were essentially a nation of husbandmen and left the crafts and commerce of towns to the alien. Hence it may have been that Roman London was laid waste and pillaged, or the marauders may have been bought off by tribute, but there is no likelihood that the

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trade of the port ever disappeared or was even arrested. What may be accepted is that London, such as it was permitted to be, retained most of its Latin elements through the welter of barbarism, and that these elements were consolidated when the coming of Christianity gave the city those monastic establishments which were the beginning of its greatness. The development of Saxon London, under the ægis of the Church, reached its climax at the close of this purely dynastic division of our history in the reign of the Royal monk, Edward the Confessor.

So powerful a corporate body had London become in the eleventh century that even William the Norman dared not proceed with the subjugation of his new realm until the submission of the Capital had been obtained. This he wisely elected to secure by negotiation rather than by force, and the citizens resigned themselves to a new condition of things which they were really powerless to resist. They have been blamed for this alleged perfidy by most of our historians who have been bemused by the Saxon tradition. As a matter of fact, there was no effective resistance to offer to the iron-willed Conqueror. England was leaderless and divided. Not one of those who might have put himself at the head of a national defence was worthy of support. And so the gates were opened to the usurper, and in return the citizens received two brief charters, which rather confirmed existing privileges than conferred new ones. But William's confidence went no farther. One of his first provisions was the erection of a fortress just outside the city bounds but dominating them, a temporary structure which was the nucleus of the Tower.

The Norman conquest, rough enough in its methods, was the making of England. Truly it subjected the bulk of its indolent, bucolic and markedly intemperate people to a condition of serfdom, but it put new life into the nation and brought order out of chaos. London benefited like the rest of the Kingdom from this stern but organised rule. For one thing the Normans were pre-eminent as builders. They brought with them a distinctive style of architecture which survives to this day. It had indeed already been introduced by the Confessor. A fine opportunity for reconstruction came in 1136 when London was practically wiped out by a terrible conflagration, known in contemporary records as the "great

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fire." A city mostly of wood, even in the case of its churches, was replaced by imposing stone edifices. Its great religious house filled a space which seems almost incredible when we estimate the still restricted area of the civic boundaries. The trading portion, apart from the docks, was practically limited to the East and West Cheap, each class of merchandise having its allotted quarter, street-names still indicating their positions. All industries were conducted within the city walls, the metal-workers, street-cryers, tan-yards and tallow factories contributing with the perpetual and omnipresent bell-ringing to a medley of noises and stenches which would have made life intolerable to modern nerves.

Space will permit me to mention only a few milestones in London's progress to the first place among the world's capitals and to the dignity of being the Metropolis of the mightiest Empire in the world's annals. It was Richard the Lion-hearted who first changed the title of the city's chief magistrate from "Portreeve" to that of "Mayor," and in the first bearer of the new title, Henry FitzAlwyn, we have the doyen of that illustrious list of merchant-princes who entertained Kings and financed our wars. They remained, however, simply Mayor or "Sir Mayor" for centuries to come. It is not until the year 1540 that the designation of "Lord Mayor of London" appears in regular and official use, although the higher honour had been paid to the civic head of York as early as 1389. Pageants were a feature of London life from the days of the earlier Plantagenets and in the long reign of the unpopular Henry III. they reach a high degree of opulence. For the Roman stronghold on Thames-side had by this time so developed its trade and shipping as to be regarded as amongst the most considerable cities of Europe. Matthew Paris's description of the coronation celebrations of the young Henry and Eleanor of Provence testify to the wealth and status of the City Fathers. Of the successive visitations of fire and pestilence that delayed the fuller heritage of the Metropolis none wrought greater devastation than the Great Plague, or Black Death, which is computed to have taken toll of twenty-five million lives in Europe alone. London in a period of a few months lost between fifty and sixty thousand of a population, which could not have totalled more than twice that number. The clergy were the special victims of the pestilence and it is to the

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inferior type of churchman who was brought in to fill the gaps that may be traced the waning of popular reverence for Rome which began with Lollardry and ended with the Reformation.

The interconnection between the Black Death and the Reformation is worth recording for the two events did more to change the face of London than any social cataclysms before the coming of the Merry Monarch into his own. When Henry VIII. mounted his throne the Metropolis was still in the zenith of its mediæval splendour. Foreign visitors describe it as a very beautiful city with its many fine churches, great religious houses, and its line of noble palaces extending along the banks of the Thames, from the City proper to Chelsea and from Southwark to Lambeth. Many of these were episcopal palaces, whose sumptuousness did much more than doctrinal differences to cast out the Papal supremacy from our fair lands. Following the divorce of Queen Katherine came an orgy of persecution and confiscation in comparison with which the excesses of Mary of sanguinary memory will appear as trivial. The gibbet and the stake were more in evidence in those first years of zeal for religious liberty than in the brief period of reaction that followed. Twenty-six Dutch Anabaptists, of both sexes, were burnt at the same hour and at as many stakes in Smithfield. Not only were the monasteries suppressed but the hospitals and charitable institutions of the Church, so that the paupers and sick thronged the city streets. They crowded into London moreover from the disbanded religious houses of the provinces and this vast proletarian class was suppressed by savage cruelties or sold into slavery. Large portions, and those the richest of the old City lay in ruins. London must have presented to the foreign visitor something of the appearance of a Capital which had been given over to rapine and pillage. But the downfall of the old order made way for the new. "Those families within or without the bounds of the peerage," says Hallam, "who are now deemed the most considerable, will be found, with no great number of exceptions, to have first become conspicuous under the Tudor line of Kings, and if we could trace the title of their estates, to have acquired no small portion of them mediately or immediately from monastic or other ecclesiastical foundations." In this way a fifth of the actual land of the Kingdom is com-

puted to have passed to the new aristocracy and gentry in this crusade of grab. Tudor architecture testifies to the new standards of luxury and expenditure engendered by the easily gotten wealth, and what London lost in the disappearance of its great monastic patrons was in time made good by the increasing prosperity of the merchant-classes and the general growth of trade for which the enterprise of England's sea-captains was ever opening up fresh channels. But the developments of Tudor and Stuart London tended to become ex-mural. The more settled conditions of the country discounted the protection of city walls, and the beginnings of Suburbia may be said to take its impetus from the early Tudor period.

There had hitherto been little trespass upon the primeval forestlands which engirdled the outskirts of the Metropolis. The conditions are illustrated by a proclamation of Henry VIII. with the object of preserving "the partridges, pheasants, and herons from his palace at Westminster to St. Giles's in the Fields, from thence to Islington, Hampstead and Hornsey Park." Under the less autocratic rule of his successors, however, the natural expansion progressed in spite of Royal edicts. The congestion of population found relief in extensions west, north and east. The science of sanitation was still so backward that these urban expansions constituted a real danger to public health. To the frequent recurrence of plague were added the difficulties of victualling such an agglomeration of humanity. These problems account for the Elizabethan proclamation of 1580, prohibiting the building upon ground "which had never been built upon within the memory of man." Severer measures were found expedient fifty years later when Charles I. issued an edict forbidding "the erection of any new building upon a new foundation, within a limit of three miles from any of the gates of the City of London or palace of Westminster." A special permission had to be obtained by county magnates to remain in London and in 1632 the Star Chamber fined a Sussex landholder £1,000, for exceeding the period of residence in the city prescribed by the proclamation of that year. Nevertheless the ubiquity of the jerry builder and the rapacity of the slum landlord appear to have been as insistent as in this year of grace, as witness the following extract from a pamphlet issued shortly after the demise of the Great Queen

"Thes sorte of covetous Buylders exacte great renttes, and daiely doe increase them, in so muche that a poore handie craftesman is not able by his paynefull laboure to paye the rentte of a smale Tenement and feede his familie. Thes buylders neither regarde the good of the Comon-wealthe, the preservacion of the health of the Cittie, the mayntenance of honeste Tradesmen, neither doe they regarde of what base condicion soever their Tenantes are, or what lewde and wycked practizes soever they vse so as their exacted renttes be duely payed, the which for the moste parte they doe receive either weekly or moonthely."

The fears ventilated by these Royal proclamations were grimly realised by the Plague and Fire which outraged Puritans hailed as a divine judgment on the new Sodom. Disease-ridden London was gutted as effectually as though a fiery blast from heaven had swept over it. There was a total clearance of an oblong square of human habitation of a mile and a half in length and half a mile in breadth. Of ninety-eight parish churches within the walls eighty-five were destroyed. The loss of property and records was incalculable, and the legal fraternity reaped a protracted harvest in settling deeds of title and investigating conflicting claims to unrecognisable rubbish heaps. To add to these calamities, the Dutch Fleet took advantage of the prevailing chaos and the unmanned forts to sail up the Thames to Gravesend, force the boom of the Medway and to make themselves masters of the Channel for six weeks. Out of the wreckage of the old City, however, was evolved a new London, the process of which has not changed much in the succeeding centuries. The outward trend was accelerated without disapproval from the Crown. The gay court attracted to town life a class of the county families which had held aloof from its influence in more austere times. Covent Garden, Spring Gardens and St. James's became fashionable residential quarters and the divorce between the City and the world of fashion was completed. It is in this era that the Coffee House came into popularity and was the meeting place of all that was distinguished in the realms of letters, art and science. The influence of hot temperance beverages on the national temperament is a study in itself. These drinks were still a novelty in Restoration times. Chocolate had been introduced to Englishmen, appropriately enough in the

dour days of the Commonwealth, but was regarded as a medicine to be taken under medical orders. Coffee, which followed, found more general favour and, as we have seen, made polite history.

Improvements in the elegances and comforts of life, however, were capricious even in the later seventeenth century. Sanitation, lighting and road-construction remained in a primitive stage. The gutters were streams of filth and putrid garbage, and the vehicular traffic besmirched the pedestrian with foul mud, whilst such fashionable spaces as Lincoln's Inn Fields and St. James's Square were the receptacles of household refuse and the haunts of noisome vagrants. There was no attempt to light the streets and robberies with violence were the general rule after dark. It is true that towards the end of Charles II.'s reign an enterprising individual secured a patent for lighting London, but his provision in winter of only one lantern for every ten houses was regarded as a somewhat startling innovation. We can readily understand why, in these circumstances, the great river retained its claim to be the premier highway of the Metropolis. For business and pleasure the Thames was the safest, most comfortable and mainly the most expeditious line of communication, although the smells of the river appear from all accounts to have been fearsome even to the nostrils of our ancestors. The water traffic was indeed one of the most important organisations in the Metropolis: the boatmen on the rolls of the Waterman's Company throughout this century numbered 40,000, and could in emergency contribute half that number to the Fleet. Almost all the great pageants availed themselves at some stage of their progress of this incomparable route, and it was not until the City Corporation ceased to be Conservators of the Thames that the century-old custom of the Lord Mayor's Show proceeding to Westminster was abandoned in 1857. Then be it remembered that up till the year 1769 London Bridge was the sole connecting link between North and South London. These facts enable us to appreciate the importance of Father Thames in the lives of Londoners before the era of County, Council Trams and twopenny tubes.

Before quitting the period of the Restoration I must refer to that episode which to all lovers of the London traditions is a humiliating blot upon the civic annals.

In the summer of 1683 the Lord Mayor and Corporation were bullied by the King into surrendering the ancient prerogative of electing their own officers. Nettled by their opposition, Charles summoned them to show cause why their Charter should not be forfeited as a penalty for having exacted irregular tolls and flouted the Royal authority. The King's Bench decided against the City. The Charter was then restored with the proviso that Charles was to have a veto on the election of the principal officers. After a temporary submission, the Corporation disobeyed the mandate, upon which the King proceeded to nominate the Lord Mayor and other members without consulting the Corporation, and thus disappeared that right of self-government which had been the proud assertion of the City's independence since its foundation.

As I have already said, the history of London from the later Stuart period is one of steady expansion and growth of population. There are no revolutionary changes but only such as would come about in the normal evolution of a vast and increasing community, whose notions of social amenities, security and convenience were ever improving. The following figures taken from the decennial calculations of the last century will serve to show the stupendous accretion of population to the Empire's metropolis:—1801, 864,035; 1821, 1,227,590; 1841, 1,872,365; 1851, 2,362,236; 1861, 2,803,989; 1871, 3,254,260; 1881, 3,815,544; 1891, 4,211,743; 1911, 4,521,685, or of "Greater London," 7,251,358. London returned twenty-three members to Parliament prior to the Reform Act of 1885; the number was more than doubled by the Act of that year. Such phenomenal growth necessarily entailed changes in local control. For a time the continued supremacy of the City was maintained by treating the extensions as "Liberties," but when this distribution became unmanagable it was recognised that certain districts were outside the jurisdiction of the corporation. Moreover, the extensions linked up with boroughs whose municipal independence was too long established to be ignored. Out of the chaos of municipal responsibility which followed came the latest attempt at uniformity when in 1888 the Metropolitan Board of Works was superseded by the London County Council. Greater London was raised to the dignity of a "County." With this stage we arrive at the

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present day, a stage which by no means satisfies the aspirations of municipal reformers, whose ideal is one central government administering the whole vast area, with perhaps sentimental concessions to the picturesque prerogatives of the City, and with a pooling of the rates which shall make the incidence of local taxation fall as an impartial burden alike on the exclusive suburb and the East-end warren.

The Old City I have been describing has little relation to the Empire's Metropolis as constituted to-day, except in the continuity of its history and tradition. London of to-day is a new Capital and with as little affinity to the London of Dr. Johnston as to the London of Chaucer. The Thames Embankments date back no more than fifty years, the first main drainage scheme hardly more. Gas-lighting was exhibited as a novelty in 1807, but oil-lamps were not entirely superseded until far into the nineteenth century. The West India Docks, the first of the series to replace the old congested wharves and quays, were constructed in 1802, and all the river bridges have been rebuilt or built within the last hundred years. It is the same with our Houses of Parliament and our Courts of Justice. Those hardy survivals, the Inns of Courts, are going the same way and soon there will be little left but the Abbey, the Tower, and St. James's Palace to lead the fancy back to the London as old Stowe pictures it. Of its manifold wonders to-day volumes might be written and the mind of a great poet would be needed to do justice to such an epic theme. "This Imperial City" can face the future with that brave steadfast strength which has survived dynasties, conquests, rebellions and pestilences, sure of its destiny as of the loyalty of generations of imperialists to come.

The London County Council

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LONDON, before its reconstitution under the County Council, was not governed. It was administered in bits by a set of people having no interests in common and no ideas beyond dealing with the few matters that had come to them from their predecessors. They never thought of London in terms of geography. The formation of London was accidental and those in authority never considered it from any other point of view than that of an area round the ancient city, with low-lying lands in the centre rising to the heights north and south, east and west, being limited by natural boundaries, all of which had to be drained if London was to be kept tolerably healthy. In 1855 the parishes included in this area were given certain new powers and an additional status, or, where they were too small to act independently, were grouped into districts for the exercise of these new powers. The whole group of parishes and districts, thus formed for a very limited set of functions, elected a central metropolitan authority to deal with the larger problems of drainage and street improvements. An artificial scheme of this kind contained little that was new. The men who administered the new system were the men who had administered the old system and under this system London went to sleep again for thirty-three years, 1855 to 1888. During this period it had been given some additional powers, such as the control of the Fire Brigade, the carrying out of the Housing Acts; but its chief work had been the main drainage scheme, a splendid piece of engineering, various street improvements most of them wrongly conceived on petty lines, and the construction of the Thames Embankments, another splendid piece of engineering. It would be profitless to describe the evil results of this

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gigantic failure in local government experiment, but they live on still to a large extent influencing affairs of to-day. Unfortunately this experimental system was copied by Melbourne and that city is now engaged in reforming itself.

The Act of 1888 restored to the ancient counties of England and Wales the control of their own affairs which had been administered since the thirteenth century by Commissions of Peace, appointed by the Crown, and *inter alia* it created some new counties out of the older areas. Among these was the County of London which was formed from the drainage area constructed in 1855. But it was a new London. It was endowed with full county government and in addition inherited the municipal powers which its predecessor had administered since 1855.

The Council which governs this new county is an elected body. It consists of 137 members, 118 of whom are elected by the ratepayers of 58 county electoral divisions, and 19 are aldermen elected by the elected councillors. The area of the county is 117 square miles and its population is just over 4½ millions.

The government of a community such as this is not a light task. Its needs and requirements are very great and the process by which these are made known to the representative Council and then dealt with by them in connection with their entire work is not quite clear either to the people or to their representatives. There is therefore a hesitancy in the movement towards organized progress. But this hesitancy with its substratum of a great reality takes the place of an unreal stagnation and London is feeling now that it has a place to fill in the hierarchy of civic government. For the first time this larger London has become aware of itself and has throbbed with something like an ideal. The advent of the County Council of London brought big men to the work and one wondered where they came from so suddenly and why they had not served London before under the old system. They pushed the old system entirely out of existence and they made out of the old chaos a real London. This was the initial success of the London County Council and it will become a greater success in the future as the years roll on and as London understands her true position among the cities of the world.

This, the greatest success, was a general principle founded on a conception of London from its largest aspect. But it had to be built up in detail and to the work of detail we must turn, if we would understand what London is. Detail in London is of greater dimensions and greater moment than in other cities. Each item deals with greater interests and causes bigger results, means more to the sections of the community immediately affected or interested and much less to all other sections.

The county of London with its 117 square miles of territory and its population of 4,521,685 has direct relationship to a further area of 576 square miles with its additional population of three millions. This extended area practically forms the residential suburbs of London. The London population is engaged in all sorts of industry, in many manufactures, and in a commerce almost as varied as the commerce of the whole world. It is split up into groups, residential here, shop-keeping there, poor and rich, professional and academic. It brings together numbers from all parts of the Kingdom engaged in law or in parliament. It ministers to the amusements of crowds who enjoy the theatre, the music hall and other places. It moves along accepted routes of traffic pouring into the centre in the morning in millions and out again into the outskirts in the evening. It lives a life that is impossible to describe or to penetrate, because it is still an incoherent mass out of touch with its parts, unconscious of its power, dimly understanding its needs. The people live a private life behind the sacred threshold of the home and Londoners have yet to learn that it is well for them to take their share in the public life—to live publicly as well as privately.

This is the inheritance to which the London County Council succeeded, and signs are not wanting that the blots in it are being wiped out or reduced. The first claim in this direction undoubtedly belongs to public health. The work of the Council under this head commences with the birth of children. As the supervising authority over midwives it sees that neither mother or child is left to the unskilled and untrained midwife of the Mrs. Gamp type. By means of inspection and nursing facilities it helps the baby child until the school age is reached. At the schools it sees that the child is properly fed and supplies food for the

hungry, no less than 42,000 children being provided with over 211,000 meals in the year; it gives medical aid where it is needed and generally sees to it that education is not wasted where the physical conditions can be improved to meet the mental requirements. After the school age it does not concern itself with the individual but takes control of the great contagious and infectious diseases which affect the individual as one of a group—small-pox, diphtheria, scarlet fever, cholera, tuberculosis, and the like and so stays the ravages which extension beyond the individual patient was wont to cause. It takes charge of the imbecile, the lunatic and the inebriate, and is generally extending the sphere of public health into the domain formerly occupied by private action. Several specialized services are also devoted to the prevention of disease and ill-health. The blot of overcrowding in unhealthy homes is slowly being stamped out in London, and provision is being made for the better housing of the labouring classes. Then a whole series of health duties of a comparatively minor kind lead up to an aggregate of useful results. These are the regulation of houses let in lodgings and of the occupation of underground rooms; the licensing of common lodging houses and the subjection of seamen's lodgings to by-laws; the cleansing of verminous and unclean persons, adults and children; the suppression of contagious diseases in animals; the control of offensive businesses; the control by way of inspection of the milk supply and storage.

Duties of this kind deal with evils which have to be checked and minimized. There are greater duties belonging to public health services which have for their objective the avoidance of evils altogether. The greatest of these is the magnificent main drainage system which day and night is at work removing from every house the by-products of domestic usage. The total length of the sewers in the main drainage system apart from the local connections therewith is 370 miles, which has involved a capital expenditure of nearly six millions. This beneficent work is all underground and Londoners do not realize what they owe to it. The second of these great health services is the provision of Parks and open spaces which serve as the lungs of London. No city needs such a provision more than London, and no city is so well provided in this respect. There are no less than 118 separate parks with an area of 5,100 acres and their en-

joyment by the public is assisted by the provision of music, games, boating, bathing, refreshments, aviaries, places for animal and bird life, and other amenities. The net result of all this activity is that London is one of the healthiest towns in the world. Its death rate is only 13·6 per 1,000 compared with nearly 20 per 1,000 in 1888, and the expenditure of the Council on all the services which come under the head of public health amounts to 14s. 0·8d. per head of population.

Education comes next in importance and the system administered by the London County Council provides chances for every child to proceed from elementary schools to the university. There are nearly 650,000 children in the public schools of London involving a cost equal to 47·3d. in the £ on the annual value of rateable property and of which 26d. is paid out of Imperial taxation and 21·3d. out of municipal rates. London is well endowed with secondary schools and the City of London, St. Paul's, Merchant Taylors, Mercers, schools may be mentioned as the best known of this class of institution. Art schools are established in connection with the Royal Academy and South Kensington schools. The London University with its colleges, King's College in the Strand, University College in Gower Street, the School of Economics, is being brought more closely into touch with modern requirements, and there are several institutions where endowments for special lectures enable students to take special courses. The four great law schools, Inner Temple, Middle Temple, Lincoln's Inn, and Gray's Inn do not come under public organization and the medical schools at the several hospitals are also independent.

London is more in need of an organized locomotion service than any other city in the world. Its distances are so great and the want of concentration in definite centres of the various trades, industries, institutions and public resorts generally makes locomotion more complicated than usual. The greatness of the need can be measured by the growth of traffic. While in 1889 the tramways with horse traction were 106½ miles in length and carried in the year 169 million passengers, in 1914 with electric traction, they were nearly 150 miles in length and carried over 513 million passengers. These seem enormous totals, but still the population of London does not use its tramways as other cities do. They carry only 113 passengers per head of population compared

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with Glasgow at 300 per head and other cities ranging down to 150 per head. The following interesting table, taken from the first volume of *Comparative Municipal Statistics* recently issued, will illustrate this point:—

ANNUAL NUMBER OF PASSENGERS PER HEAD OF POPULATION.				ANNUAL NUMBER OF PASSENGERS PER CAR MILE.			
Glasgow	300	(about)		...	...	...	13·84
Manchester	259	...	...	...	...	...	10·00
Sheffield	207	...	...	...	...	...	11·94
Edinburgh	201	...	...	...	...	...	9·59
Leeds	200	...	...	...	...	...	10·30
Newcastle	194	...	...	...	...	...	10·92
Dublin	187	...	...	...	...	...	7·37
Liverpool	178	...	...	...	...	...	10·66
Birmingham	168	...	...	...	...	...	10·24
Cardiff	154	...	...	...	...	...	10·84
Belfast	149	...	...	...	...	...	9·83
Bristol	146	...	...	...	...	...	8·98
Aberdeen	123	...	...	...	...	...	11·50
Dundee	108	...	...	...	...	...	13·18
Swansea	93	...	...	...	...	...	8·50

The passenger traffic of London is indeed entirely disorganized. Motor omnibuses, tube railways, suburban and underground railways help to carry London passengers, but each system is independent. They compete with each other to the detriment of all. They fix their routes without regard to the requirements of London as a whole. There is no interchange of facilities and no guidance as to how travellers from one part of London may reach other parts. There is no scheme for bringing into a common system the various methods of traffic, and London allows itself to be dominated by the various traffic companies instead of itself controlling, in the interests of its population, the entire traffic arrangements, as every other municipal authority in the Kingdom controls its own traffic. There has always been a strange medley of plans and desires for the management of London's traffic requirements and it will need a determined effort on the part of those who suffer from the present deficiencies before the remedy will be found. The County Council is the one possible authority to carry out the remedial scheme when it is formulated and people and their representatives will have to work together in unison to attain the desired end.

The buildings of London, public and private, are to a large extent under the supervision and protection of the County Council. It administers the London Fire

Brigade, consisting of 1,400 trained men located in 85 stations situated in different parts of the county. This is the most admirably trained force in the Kingdom for the extinction of fires which arise and for the saving of life. It is equipped with nearly 100 engines, over 300 fire escapes and ladders and 58 miles of hose. There are nearly 6,000 calls in the year from the 606,000 dwelling houses and the offices, warehouses, workshops and factories, and these are dealt with in such a way as to result in less than 100 deaths from fire in the year. This is one of the most complete services under the Council. Complementary to this are various services which have for their object the prevention of fires. The Council supervises the construction or the structural conditions of certain classes of buildings used by the public, such as factories and workshops, theatres and music halls, and all buildings exceeding 60 feet in height. It secures the provision and maintenance of proper means of escape from fire in all buildings above fifty feet from the ground. By means of annual inspection the safety of the public from fire in theatres and other places of entertainment is made reasonably secure from accidents arising from inefficient means of lighting, the use of scenery not made of fire resisting material and the use of explosives and other dangerous substances. Another group of services, governed by danger from fire, relate to dangerous businesses where explosives, petroleum spirit, celluloid, are stored or used in manufacturing processes, and the new danger from the storage and sale of petroleum and these are all regulated by the County Council.

Besides the protection from fire there are other services which have for their object the supervision of buildings in London. London has been too long subjected to the speculative builder for it to recover quickly from his merciless indifference to private and public utility. Miles of mean streets do duty for the homes of Londoners. There were over 95,000 dangerous structures reported in a single year (1913), and the Council exercises effective and drastic powers in such cases. But they are the measure of the building iniquities of the immediate past. Nothing like it was tolerated in previous periods. In mediæval days the citizen thought it a matter of pride to build his house so as to constitute it not only an asset but an ornament to his city and in this way we still enjoy what is left of ancient Salisbury,

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Chester, Shrewsbury, Lincoln, Durham and the other glories of the past. In later days, Tudor, Jacobean, Georgian, the houses of citizens contributed to the beauty of London. In our own time only has it been reserved to produce the ugly, not occasionally here and there, but in masses with the result that garden cities and house architecture are extending beyond London and London is being left dismally behind.

A certain amount of supervision and control is exercised by the County Council over businesses conducted by private undertakings. London does not own its gas supply or its electricity supply, but it regulates charges to be made by the gas companies, examines the quality of gas supplied, prescribes a burner for the testing of gas, tests and verifies gas meters, of which close upon 250,000 are dealt with in the year. Similarly for electricity the Council is not the electricity authority for London, but it exercises certain powers over companies and authorities who supply electricity, including the testing of meters. There is no city in the world so badly off in respect of electricity supply as London is. Once again it has been dominated by private interests and the whole question is mixed up so interminably with these interests and the assumed interests of smaller local authorities who supply electricity that only the most drastic measures will relieve London from disaster in its manufacturing industries by the insufficiency of electric power supply.

The Council inspects weights and measures used for the sale of goods; and certain articles, coal, coke and bread, have been the subject of special provisions. Nearly 2½ millions of appliances are submitted annually for verification at the fourteen stations provided for the districts into which the county is divided for the purpose. The Council also controls advertisements outside railway stations; registers motor cars; makes by-laws for the use of public roads by locomotives; deals with the provisions of the Shop Hours Act; provides an ambulance service to meet street accidents; is the protecting authority for infant life, for the prevention of cruelty to children, and for the employment of children; registers and licenses employment agencies.

The London County Council in addition to its direct duties assists in several indirect ways in the government of London. It sends members to the Port of London

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Authority which deals with 239 millions worth of imports and 145 millions of exports; to the Metropolitan Water Board which supplies daily 236 million gallons of water to London and the surrounding areas; to the two river conservancies; to the Insurance Committee and the Old Age Pension Committee; and it forms half the Standing Joint Committee of the Justices.

These are great services. The Port of London is the largest in the country and with the exception of Hong Kong the largest in the world, and Harwich, Dover and Southampton are in reality branches of the Port of London.* The comparative figures are interesting, quoted from the first volume of *Comparative Municipal Statistics*.

IMPORTS.			EXPORTS.	
	£			£
London ...	239,344,384	Liverpool ...	194,115,879	
Liverpool ...	179,250,186	London ...	141,284,668	
Manchester ...	35,111,128	Glasgow ...	38,823,496	
Bristol ...	17,511,486	Manchester...	21,606,841	
Glasgow ...	16,941,685	Cardiff ...	13,943,682	
Edinburgh ...	16,531,420	Newcastle ...	10,718,200	

The distribution among the ports of the various kinds of goods adds to the interest of these figures. Of raw cotton among the imports, 95·98 per cent. of the whole import into the United Kingdom came into the two ports of Liverpool and Manchester, constituting 34·48 per cent. of the total imports into Liverpool and 43·32 per cent. of the total imports into Manchester. Jute among the imports, is only enumerated at two of the ports. viz., London and Dundee; London importing 38·50 per cent., Dundee 58·70 per cent. of the total. Coal among the exports, constituted 94·80 per cent. of the export trade from Cardiff.

The Metropolitan Water Board is the public authority for water supply. The total supply of water is equal to 35·39 gallons per head of population per day. This includes all the public services, fire protec-

* Harwich, Dover and Southampton do not exist as ports because of their local requirements, but because of their connection by railway with London. Passenger traffic and goods are not local in character, but are for the service of London, and both passengers and goods proceed to London or from London for the greater part. The Port of London could hardly manage the business done at Harwich, Dover and Southampton without being seriously overcrowded, and that London is connected with these ports by railway enables them to be used for London purposes. They could not exist by themselves. They came into existence because of their connection with London. They are, therefore, virtually outposts of London.

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tion, road watering, as well as all the trade supplies and it requires 6,864 miles of trunk and distribution mains.

Outside these services publicly administered is gas supply in the hands of private companies. There are over 4,000 miles of gas mains in the area of supply, which extends beyond the county. Gas is supplied to a million and a quarter of private consumers and lights seventy-five thousand street lamps. Electricity is used to light eighteen thousand street lamps and supplies 144,000 private consumers.

London is a beautiful city and a loveable city. Its movement, its leisure, its work is carried on amidst natural surroundings which cannot be quite destroyed even by the speculative builder. It has Roman remains, Anglo-Saxon remains, Norman buildings, Plantagenet buildings, Tudor, Jacobean, and Georgian buildings. The great squares planned by the Ducal owners are one of the best features of London. The visitor may quite easily detect buildings which are still beautiful, types of past architectural greatness and many of the suburban parts retain beautiful houses entered through hammered iron gateways, perhaps still keeping a cedar tree or a mulberry tree and still preserving features of the formal garden which was so much in vogue. No one can walk down Strand or Piccadilly and not feel the presence of a romance which comes from an unforgotten history. The residences of statesmen, scientists, poets, painters, men of letters, musicians, actors, now being commemorated by the County Council, cannot be passed quite heedlessly. The evening outlook up the great western road, the still possible glimpse of the heights of Highgate, the altogether unique road in the east, are great assets. The old names of street and district, the glimpses of a past topography, help to an understanding of the beautiful in London.

These are the details which build up the edifice of London under the County Council. It is not altogether stately but it is by no means petty. It has got itself together just in time to meet a new epoch in its history. London has been the inevitable, not the appointed, capital of England, of Great Britain, of Great Britain and Ireland and is now, by right unquestioned, the capital of the British Empire. It has to realize this as a new position. The Empire in the future is going to differ from the empire of the past and London as the centre,

point of its government must be prepared to take part in the new condition of things. It will, for this purpose, have to get rid of many ancient and obsolete ideas about itself. It must cease to think in sectional fragments and determine to act as the great city—capital of a great and proud empire. Londoners must assume pride in their city, because it is the capital city, not because it is a cogeries of ancient parishes. We shall in the future speak of Britain with its divisions of England, Scotland, Ireland, Wales, Canada, Australia, India, South Africa and the rest. We shall know them as Britons one and all with the cement of freedom to weld them together. And in this new nomenclature of empire must be included a new conception of London, because it is the capital city of the British Empire. That the County Council, the central governing authority of London, should have prepared the way for the new conditions by its administration of the great services which have been enumerated and by its recognition of the needs of London, is the greatest achievement possible to have been accomplished. It has not only led London up to a certain stage of development, but has given it the impetus to go forward. All unconscious of the events which were to determine the manner of, and the period when, the movement forward was to take place the work of the Council lends itself both to manner and period. And London thus owes to the great representative men to whom it has entrusted its destinies a debt not easily measured. One may be certain that it will not be ungrateful when the time comes to express gratitude. London is the author of its own greatness and it is its chiefest glory that its destiny is justified by the greatness it has achieved.



International Law in the Present War

BY CYRIL M. PICCIOTTO

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I.—WHAT IS INTERNATIONAL LAW?

IT is often thought that International Law means the law which governs any case in which the law of two countries is involved, as where, for example, a man dies leaving some property in England and some in Spain, or where a marriage is made by the citizen of one State according to the forms of another. This, it is true, is a branch of the subject, but not that branch with which we are now concerned. International Law, as discussed in this article, is that body of rules which governs the relations of States with each other both in peace and in war, giving to each rights and imposing duties, just as the member of any one community derives rights and duties from the law of the land. The States with which International Law is mainly concerned are of the normal self-governing and independent type, such as Great Britain, France, Holland, or the United States; or, to use the technical language of international lawyers, Sovereign States. It has been maintained by many people that what is commonly called International Law is not law at all, in the ordinary sense of the term, because it cannot be enforced by a common superior, as can the law of the land. But this view is losing ground nowadays, even in spite of the apparent weakening of International Law caused by and arising out of the present war. In the first place all discussions between States regarding International Law are conducted on legal lines,

and appeal is made to judgments and precedent; secondly, the law of each State contains provisions for enforcing upon its subjects the observance of the duties which it owes its neighbours; thirdly, in any dispute as to breaches of International Law no State ventures to brush it aside, but seeks to show that its own action was in accordance with law; and lastly, in the long run the State which attempts to defy or set itself above the law proves in practice unable to resist the pressure, if necessary by armed force, of other States whose interest it is to see the law observed.

Of what does International Law consist?

A rule of International Law may exist either because two or more States have agreed to observe it, in which case it is binding upon those States which have so agreed, or because a custom or rule of practice has been adopted for such a period and by a sufficiently large number of States as to acquire the force of law. At this point it should be said with all emphasis that in International Law all Sovereign States are equal, possess the same rights and are under the same obligations, the British Empire equally with Switzerland, Germany equally with Peru; magnitude of territory or political influence count for nothing. Those rules of International Law which are derived from the first-mentioned source are said to be Conventional, since their origin is a Convention, or Agreement, or Treaty; those of the second kind are said to be Customary, in that they arise from custom or practice. The first class of rules needs no further explanation; the second requires some. For instance, it has long been the practice now for States to accord special privileges to diplomatic envoys accredited to them by a friendly State; in every country in the civilised world they are exempted from the jurisdiction of the country to which they are sent, and are subject to that only of their home State, and this rule applies to their entire staff, household, and family. Again, all persons on board a ship on the high seas are for many purposes subject to the jurisdiction of the flag-state. Both these are examples of rules which rest upon custom and practice as distinct from those which rest upon treaty.

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International Law Governs War as well as Peace

There is no antithesis between war and International Law. Indeed, war is regarded as an inevitable evil, and attempt is made to regulate its conduct and to lay down rules as to acts which the belligerents may lawfully do, and those which they may not. Here again we find just the same principles in force as those under discussion above. A State which is at war with another State has rights and also duties, and these rights and duties rest sometimes upon custom and practice, as in the case of the customary rule of civilised warfare that poisoned weapons shall not be employed, or upon treaty, as in the case of the Hague Conventions, by which a number of States have agreed upon certain rules for the conduct of war. Again, it must be noted that International Law does not go behind the fact that a war between two or more States has broken out; it does not distinguish between just and unjust, between righteous and unrighteous wars, between wars of aggression and wars of defence; once the fact of war is established, the laws and customs of war apply equally to all the belligerents.

II.—TREATIES OF IMPORTANCE IN THE PRESENT WAR

- (a) The Treaty of London (1831) signed by Great Britain, Austria, Belgium, France, Prussia, and Russia, provides that Belgium shall be an independent and permanently neutral State; and the neutrality was placed under the guarantee of the Powers. The clauses of this treaty were embodied in the second Treaty of London (1839) which finally erected Belgium into a State separate from Holland. The effect of these arrangements was to make it on the one hand unlawful for Belgium to enter into a war except in self-defence, and on the other to bind the signatories to respect and cause to be respected her neutrality. In August 1914 Germany, who as the successor of Prussia was bound by the treaty, violated it by entering Belgium in order to attack France. The German Imperial Chancellor, speaking in the Reichstag, admitted the

breach, but pleaded that "necessity knew no law." This action made it necessary for Great Britain, as a guarantor of Belgian neutrality, to assert both her rights and her duties under the treaty by force of arms; and war was declared by her upon Germany on the night of August 4th.

- (b) The Declaration of Paris (1856), signed by Great Britain, Austria, France, Prussia, Russia, Sardinia, and Turkey, and subsequently acceded to by almost every State of any importance, except the United States of America, lays down most important rules for the conduct of maritime warfare, namely:—
- (1) That privateering is abolished;
 - (2) That goods of the enemy sailing under the neutral flag cannot be captured, except contraband of war;
 - (3) That neutral goods sailing under the enemy flag cannot be captured, except contraband of war; and
 - (4) That a blockade, in order to be binding, must be effective.
- (c) The Geneva Conventions of 1864 and 1906, to which practically all civilised States are parties, lay down rules for the treatment of wounded.
- (d) The Hague Conventions of 1899 and 1907 are a series of agreements covering, among other matters, the whole subject of Land Warfare, and some important topics of naval war. The necessary regulations, founded on these Conventions, for the guidance of British Armies in the Field, have been drafted by Professor Oppenheim and Colonel Edmonds, and are contained in the 1914 edition of the War Office Manual of Military Law.
- (e) The Declaration of London (1909) was signed by all the Great Powers of Europe, and contains agreements on such important topics of maritime warfare as blockade, contraband, and the destruction of neutral ships. We may say that it largely forms the basis of the naval action of all the belligerents.

III.—WAR, AS BETWEEN THE BELLIGERENTS

The outbreak of war between two or more States must, according to a Hague Convention of 1907, be preceded either by a Declaration of War giving reasons for the taking of such a step, or by an ultimatum, *i.e.*, an intimation that a state of war will arise unless certain demands are complied with. This was followed in August 1914 by the European Powers engaged in the present struggle; the war between Great Britain and Germany was commenced by ultimatum tendered by Great Britain, of which the time-limit expired at midnight of August 4th.

The state of war affects primarily and in the first instance the armed forces of the belligerents; though this is not to say that the civilian population stand outside the war. War, like any other fact of International Law, is an affair between two or more States, and the State naturally includes all its citizens. But a rule of reciprocal treatment has gradually come into force, by which the civilian and non-combatant portion of a State at war is not liable to be attacked or made prisoner provided that it makes no attempt to take any part in hostilities. Thus we get a rule founded on mutual expectation; the civilian is entitled to expect to be treated as such by the enemy—the enemy is entitled to expect that the civilian will behave as a civilian and not as a soldier.

The question, who is and who is not a member of the armed forces, and who is entitled to the privileges of a lawful combatant, has always been a matter of dispute. The Fourth Hague Convention of 1907 lays down four conditions with which compliance is necessary:—

- (1) Persons claiming the privilege must be commanded by a responsible head.
- (2) They must carry a fixed distinctive mark easily seen from a distance.
- (3) They must carry arms openly.
- (4) They must observe the laws of war.

A good example of the second condition is to be found in the red armlet with the letters G.R. stamped upon it that is worn by the Volunteer Association, which has received government recognition as a lawful combatant. The Hague Convention further provides

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that the *levée en masse* or uprising of the whole population in order to *resist the approach of the invader* (as opposed to hostile action on the part of civilians in an area already occupied) is lawful if such persons carry arms openly and obey the rules of war.

It may be said that a State no longer has the power to treat subjects of the enemy State who are in its territory at the outbreak of hostilities as prisoners of war. But it is entitled to request them to withdraw after a reasonable time has been given them in which to wind up their affairs, or to intern those who are of such an age that they could be employed in the military service of their own country, or to make any regulations that are considered necessary for the restriction of their movements. In Great Britain alien enemies of military age are interned, while those of no military use are repatriated, unless cause to the contrary is shown to an Advisory Council, consisting of some Members of Parliament and two judges of the High Court. In Germany, also, British subjects of military age are interned. This of course applies, in Great Britain, at least, only to persons who remain of enemy nationality. Those who have been naturalised are, by virtue of the Naturalization Act of 1870, for all purposes British subjects by law and on the same footing as persons of British birth.

The property of alien enemies may now no longer be confiscated. The State, however, may sequester or hold in trust debts payable to an enemy till the conclusion of the war, in order to prevent the increase of the resources of the enemy State. In Great Britain machinery has been set up by the Trading with the Enemy Act of 1914 to place debts payable to enemies in the control of the Public Trustee as Custodian of Enemy Property.

According to the law of some countries, notably Great Britain and the United States, enemy subjects cannot bring actions in the Courts for the period of the war. This rule is not found in the law of Germany, Austria, Italy, and Holland; and even in Great Britain it is mitigated in practice by the consideration that an alien enemy who has resided or carried on business in this country for a number of years, and has so acquired a domicile here, may sue and be sued in the Courts. This has recently been affirmed by the English Court of Appeal.

The Conduct of War on Land

The conduct of war both on land and on sea is subject to two general rules:—the first, enunciated above, that no violence must be offered to non-combatants, the second, that no kind of force which is more than is necessary for the destruction of the resistance of the enemy, or which causes superfluous suffering and injury, may be legitimately employed.

An almost complete code of the laws of land warfare is provided by the Hague Conventions. As to these, two observations are necessary. In spite of certain technical considerations as to their binding nature in the present war, it seems that all the Powers concerned treat them as binding, and regulate their action upon that footing. They will therefore be regarded in this article as a part of International Law governing the incidents which we shall discuss. Further, the prohibitions contained in them are not exhaustive; or, in other words, an act of warfare is not necessarily legitimate because it is not forbidden by the Hague Conventions. Cases for which they have not provided must be judged according to the unwritten or customary laws of war and the dictates of humanity.

Since the laws of war are a part of International Law and not outside it, it follows that a State which violates or allows its troops to violate these rules is committing a breach of the law. The Hague Conventions provide that regulations must be drawn up by each State in accordance with the terms of the Convention for the instruction and guidance of their armies. If any of the laws of war are broken, the offenders may be punished, if caught, or the other party may resort to reprisals. But it is the duty of every State that is at war to have its troops under such control that it punishes all wrongful acts with the greatest severity. No State is entitled to plead that its army is too numerous for effective control, or that it cannot prevent its troops getting out of hand. There is unfortunately abundant evidence in the Report on alleged German atrocities in Belgium issued by the British Government, that during the months of August and September 1914 there was, at the very least, the grossest negligence on the part of the German Higher Command in restraining the excesses of the troops under them.

Some Features of Land Warfare

It is a frequent practice for troops of one side to wear the uniform of the enemy. The legitimacy of this is much in dispute, though some authorities hold that it is correct if the proper uniform is put on before the moment of actual attack. This device has been adopted by both French and Germans in the present war, and cannot be condemned outright as definitely wrong, notwithstanding the fact that the number of authorities opposed to it is increasing.

The Fourth Hague Convention lays down rules for the improvement of the conditions of prisoners of war. They must in all cases be treated humanely. In regard to housing, clothing, and food, they must be treated in the same way as persons of corresponding rank in the army of the State whose captives they are. The important point to note in this connexion is that the standard to which conformity is required is that maintained in the army of which the prisoner is a captive, and not that of the army to which he belongs. Hence it follows that while much of the indignation aroused by the treatment of British prisoners in Germany was justified in so far as it was inhumane and was therefore contrary to the express word of the Hague Convention, it was not justified on the ground that the treatment they received was worse than that accorded them in the British Army. Provided they were treated no worse than German troops, there was no cause of complaint. The Hague Conventions made the excellent innovation of requiring a Prisoners of War Information Bureau to be set up in every belligerent country, which is to be the centre of information regarding all prisoners of war and all particulars concerning them. All lawful combatants (*i.e.*, all persons who are members of the armed forces of the enemy and who have committed no act of illegal warfare) must upon capture receive the treatment of prisoners of war. Civilians who engage in hostilities, or soldiers who violate the laws of war (*e.g.* abuse the white flag, kill or ill-treat prisoners, or fire on the Red Cross) are regarded as war-criminals, and are liable to the penalty of death when caught.

One more fact of land warfare about which a word is necessary is Occupation. A military occupation becomes effective when the invading army has succeeded

in either defeating or driving before it the forces of the country invaded, and so is in a position to exercise a real control over its government. The sphere of occupation extends over precisely as much of the country as is subject to the real military control. Thus the greater part of Belgium is now under an effective German occupation, except that portion still held by troops of the Allied armies. But occupation is distinct from conquest, which cannot take place till the end of the war, since the army of occupation may be forced to retire; or, in other words, the occupied country does not become part of the dominions of the occupying State. The Hague Conventions lay down rules for military occupation. The lives, property and religion of the inhabitants of the occupied country must be respected, in return for which they are bound to offer no resistance to the enemy, nor to rise against him. The military power must govern and administer the occupied territory, and may collect taxes and make laws. Such laws have been made by the Germans for Belgium and by the Russians for part of Galicia. This is quite legitimate, provided that it is clearly understood that the administration is only provisional, and involves no change of sovereignty.

Warfare by Sea

The principal aim of a belligerent by sea as on land is the destruction of the armed forces of his enemy, that is to say the sinking or damaging of the enemy's ships of war. Again, he may bombard such of the enemy's fortifications as he can reach from the sea. The question, long debated among naval experts and lawyers, of the permissibility of bombardment of open or undefended coast-towns was in a measure settled by the Ninth Hague Convention of 1907, which lays down that the bombardment of undefended ports, towns, villages, and dwellings is forbidden, but allows that of works of military or strategic importance, such as dockyards, railway-stations, and the like. Although the true meaning of "defended town" is by no means clearly fixed, a place, even though technically a "defended" place should not be bombarded if no good military purpose is served thereby. There is no place in International Law for a right of "frightfulness" or terrorisation of the civilian population by the

enemy in order to produce a weakening of nerves. Hence the bombardment of Hartlepool by the German Fleet was justified on the ground that important docks were the object of the attack, but not that of Scarborough and Whitby, where there was nothing of any military or strategic value.

Apart from the Hague Conventions there is no sufficient authority which provides rules for the laying of mines. The Hague Rule forbids the laying of un-anchored contact mines, unless they become harmless one hour after they have passed out of control, and of anchored mines unless they become harmless on breaking loose from their moorings. The second article of the same Convention (No. VIII.) forbids the laying of mines off the coasts and ports by the enemy with the sole object of injuring his commerce. It is at once plain where lies the defect in these regulations. They say nothing on the all-important question of where mines may be laid. The treatment by almost all the belligerents of large tracts of the High Sea as a war-zone over which mines are laid to the great peril of neutral shipping seems, although not expressly forbidden by the Hague Conventions, a most serious departure from the first principles of the law of war, by which neutrals are put in actual physical danger by reason of the violence of the belligerents. In the present war American, Swedish, Danish, and Dutch vessels have all suffered in this way. The whole subject is in a most unsatisfactory condition, and urgently calls for thorough treatment.

One of the most important of the legitimate means of injuring the enemy by sea is the capture or destruction of his maritime commerce. The rules which govern this branch of warfare are known as the Law of Prize, and a vessel so captured is called a prize. The general rule is that there are two distinct stages in this process, first the capture of the vessel by a ship of war, and second, its condemnation or adjudication as prize in a prize court of the State whose warship has made the capture. In very exceptional cases the prize may be destroyed on capture without being taken into a prize court for condemnation, and then only after the cargo has been removed, and the crew placed in safety. English Municipal Law* holds that the prize may be destroyed in only two

* Municipal, i.e., the national law of any one State, as opposed to international law.

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cases, when she is unseaworthy, and when the captor cannot spare a prize crew to navigate her into port. In the present war the relative inferiority of the German Navy to the British and the consequent use of submarines has produced a difficult situation. British merchantmen and even liners such as the *Lusitania* have been sunk at sight by torpedoes discharged from German submarines, which admittedly have no accommodation for rescuing crews and passengers, a procedure of which the essential fact is that the British command of the sea makes the taking of a prize into port a physical impossibility. Hence both the property and the lives of subjects of even neutral States have been destroyed, and a blow struck at the very roots of prize law as hitherto accepted by the civilised world.

Warfare by Air

There are as yet no settled rules of International Law regarding aerial warfare. One can trace, however, the gradual growth of something like custom or practice in certain matters. Thus the great majority of European Powers now regard the air above their territories as subject to their jurisdiction and control. The Hague rules as to bombardment by naval forces are equally applicable to bombardment by aircraft, and the same distinction has been drawn between defended towns, which may, and undefended towns, which may not be, bombarded. The crews of aircraft of all kinds are regarded as lawful combatants and members of the armed forces, and are when captured treated as prisoners of war. If they descend upon neutral territory they are interned by the territorial Power just as are any other members of the forces of the belligerents. Upon these topics it is possible to say that a custom or practice is in course of growth. Apart from this all is speculation, and may be said to consist of more or less ingenious attempts of jurists to extend the analogies of a vessel that travels over the sea to one that travels through the air.

IV.—NEUTRALITY

The conception of a State as neutral and outside the quarrel of the belligerents is comparatively modern. In the middle ages nations were either friends or enemies,

and there was no middle course. The idea of a complete neutrality has gradually grown, and now involves the strictest impartiality and detachment. This does not mean that International Law can control the mind and sympathies of a neutral State, but only that sympathy with a belligerent must not take the form of material assistance, direct or indirect. For example, the attitude of the United States towards Great Britain and her Allies is on the whole decidedly sympathetic, but at the same time their attitude as a neutral State is strictly correct. Two main principles lie at the base of the idea of neutrality, first, that the fact of war between two or more States brings into being certain new rights by which they may within certain well-defined limits do acts in their desire to injure the enemy which are prejudicial to neutrals, and second, that the neutral State has a right to have its neutrality preserved inviolate and further has a duty to guard that neutrality.

The first of these principles is illustrated by the law of contraband and blockade. Contraband goods are those which are of use to the belligerent in his prosecution of the war, and according to the Declaration of London fall into two divisions, absolute and relative or conditional contraband. A good example of absolute contraband is ammunition and the supply of all instruments of destruction; while food-stuffs are an example of conditional contraband, and may be seized, according to the Declaration, if intended for the forces of the enemy or for his government. The distinction comes to this, that absolute contraband may be taken off a neutral ship and the ship in some circumstances captured as well, if the destination is to any point in the enemy's territory; while conditional contraband is regarded as dangerous only if intended for a certain warlike or public purpose, but otherwise may go in free of seizure. This will enable us to understand the dispute regarding the *Wilhelmina*. The German Government, early in 1915, assumed control of all food-supplies. The *Wilhelmina* sailed from the United States with a cargo of food-stuffs said to be for the use of the civilian population of Germany. The British Government, relying on the Declaration of London, announced its intention of seizing the vessel on the ground that it was impossible, in view of the action of the German Government, to distinguish between warlike and civilian purposes.

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It will easily be seen that this right of seizure, followed, of course, by condemnation by a Prize Court, is a serious interference by one belligerent with the right of the neutral to trade with the other. But it should be noted that even a constant trade in arms and munitions is no breach of neutrality on the part of the State whose subjects so trade. International Law allows the one belligerent to seize and capture, if he can, contraband going to the other. The German Government has frequently stated that the United States Government has committed a breach of neutrality by allowing its citizens to export ammunition to the Allies. This is wrong. The proper remedy is seizure of the contraband by German ships of war.

If the seizure of contraband articles consigned by neutrals to a belligerent, which is in effect a limitation on a particular kind of commerce, is a strong interference with neutrals, even stronger is the right given a belligerent by International Law to stop all commerce, whether contraband or not, between his enemy and neutrals under the name of blockade. This is the prevention of access to a line of the enemy's coast by ships of war so disposed or in such numbers as to make that access practically impossible for neutral vessels without risk of seizure. As a blockade is such a serious interference with neutrals, it must be maintained by an effective force, and must be commenced by declaration stating the precise time from which it is to begin, and the precise area blockaded. The penalty for breach of a properly constituted blockade is confiscation of the vessel, and, under certain circumstances of the cargo.

The essence of blockade as well as of contraband is the prevention by one belligerent of the importation of supplies for his enemy. It therefore follows that the proper objective of these measures is, in the first instance, the territory of the enemy, *i.e.*, the vessel carrying contraband or breaking blockade, as the case may be, is to be seized and tried in a Prize Court when in direct prosecution of a voyage to that territory. However, a doctrine arose in the Napoleonic Wars, known as the Doctrine of Continuous Voyage, which amounted to the assertion of the right of the belligerent to capture contraband goods while on a voyage to a neutral port if their ultimate destination was hostile. This principle was extended, though not without protest, by the United

States in the Civil War, to blockade; and vessels were seized when bound to a neutral port on the suspicion that they were making for a port under blockade. There is here one of these fundamental conflicts between the desire, and within reasonable limits, the right of the one belligerent to injure his enemy as far as is legitimately possible, and the desire of the neutral State to suffer as little interference with its commerce as is compatible with neutral duties. In the present war a certain amount of friction has arisen between Great Britain and the United States on this question; broadly Great Britain contends that she cannot allow her enemy to obtain supplies although they are technically and to outward appearances going to a neutral port, while the United States contends that she cannot allow her commercial dealings with neutrals to be impeded or cut off on the suspicion that the cargo is virtually consigned to the enemy. The whole matter is discussed with the greatest learning and lucidity in the Notes of Sir E. Grey to the American Ambassador of the 30th and 31st of July, 1915, to which reference is invited for a fuller statement than can be given here.

A belligerent has a right to demand of a neutral State that it shall not even indirectly assist his enemy, by loans, by allowing its territory to form the point of departure for operations against himself, and, still less, by allowing these operations actually to take place there. This principle has recently been extended to the air above the neutral territory by the Swiss Government, which presented a protest to the British Foreign Office against the passage of British airmen over Switzerland on their way to the bombardment of the Zeppelin base at Friedrichshaven.

It is a settled principle of law that the transfer, either during or in contemplation of war, by the subjects of one belligerent to those of a neutral State, of vessels which would be liable to capture by the other belligerent if they sailed under their own flag, is an invalid transfer as being an attempt to evade capture. The vessel so transferred is therefore liable to capture by the enemy, in spite of the fictitious use of the neutral flag. This is well illustrated by the case of the *Dacia*, a German-owned vessel sold during the war to an American citizen, which was captured and condemned by the French Prize Court.

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Such, in brief outline, are some of the principles of International Law which govern the state of war. Although some have been shaken and others almost destroyed in the present conflict, we may confidently expect that the not distant future will see the placing of the law of nations upon a more enduring basis. These remarks cannot be more fittingly brought to a close than by the quotation of some singularly fine and prescient remarks of the late Mr. W. E. Hall, in the preface to his treatise on International Law:—"Probably in the next great war the questions which have accumulated during the last half-century and more will all be given their answers at once . . . Whole nations will be in the field . . . National existences will be at stake, and men will be tempted to do anything which will shorten hostilities and tend to a decisive issue . . . But there can be very little doubt that if the next war is unscrupulously waged, it will also be followed by a reaction towards an increased stringency of law . . . It is a matter of experience that times in which International Law has been seriously disregarded have been followed by periods in which the European conscience has done penance by putting itself under straiter obligations than those which it before acknowledged . . . There is no reason to suppose that things will be otherwise in the future."



The British Constitution

BY EDWIN OLIVER



THE suspension of Party Politics with the outbreak of war, the whole-hearted co-operation of "His Majesty's Opposition" with His Majesty's Government in the face of the greatest menace the British people has ever had to face and the formation of a Coalition Cabinet in May, 1915, for national and imperial purposes have induced speculation as to the party system and the British Constitution; both peculiarly English in their manifestations and developments.

Two difficulties are met in any attempt to, discuss or explain the Constitution—a definition and a beginning. The first difficulty might be evaded by describing the Constitution as the political and legal system by which we are governed and as laid down by statutory enactments. But this would be an evasion, not a statement of fact, for whereas there are many unrepealed laws the enforcement of which would cause a revolution, we as a nation are content to be ruled by principles which have no other sanction than that of precedent. The anomalies of our criminal laws are too numerous and intricate for illustration here, so I will content myself with taking the Royal prerogative as an example. It is within the Sovereign's power to dismiss the whole *personnel* of the army and navy, from the heads of the services down to the rank and file; to make peace or war; to raise every adult in the Kingdom to the peerage; to give a free pardon to every criminal. These are but a few of the privileges vested in the Crown. The only safeguards against the abuse of them are the Royal discretion and the absence of precedent. This, however, is a negative instance. Let me take an affirmative one. A popular conception of our Parliamentary Constitution would be that of a board of the King's Ministers, called the Cabinet, elected by the popular Assembly as representative of the sovereign people. This is a polite fiction as the most superficial examination will

show. The composition of the Cabinet rests with the Prime Minister alone, subject to the formality of the Sovereign's endorsement. The Prime Minister has the support not of the nation, not necessarily of the larger section of the nation, but of a majority of the constituencies, which may be a fallacious reflection of the popular will. The inequalities of electoral distribution are well brought out by Lord Courtney in the following passage from his study of the *Working Constitution of the United Kingdom* :—

- “An illustration of a simple character will make plain the arbitrariness of the assumption so universally made, and the reason why it must often be falsified. Suppose three contiguous constituencies, each with 5,000 votes, making therefore 15,000 in all, and a choice between A and B being presented to the three constituencies, the first declared by 4,000 in favour of A against 1,000 for B; whilst each of the other two gave
- A 2,000 and B 3,000. The result would be that, on the vote of the three, A would have 8,000 supporters as against 7,000 for B, but, as represented by persons elected, B would have two supporters as against one for A.”

Nevertheless it has been decided by convention, not by statute, that the party commanding the largest numerical support in the House of Commons retains the confidence of the entire electorate until by its own defection it shows that it has forfeited that confidence, or until the electorate is given another opportunity of choosing its representatives. In this sense all administrative power, subject to the limited veto of the Peers, may be said to be vested in the majority of the Commons for the time being; in practice, however, this is found to be as illusory as most of the other conventions upon which our Parliamentary system is based. The whole trend of recent constitutional development has been to concentrate executive strength in the hands of the Ministry. The Cabinet exercises despotic control over the party machine, and the obligations of the average private Member begin and end with the division lobby. And the Cabinet is the greatest anomaly of all. Under that title it has no statutory existence. If we can imagine a Cabinet being cited in a Court of Law it would have to appear in the capacity of a committee of the Privy,

Council. As late as 1851 a motion to regulate the precedence of Cabinet Ministers was objected to on the ground that such a body was "unknown to the Constitution." It was not until fifteen years ago that anything in the nature of an official reference was made to the Cabinet. The Prime Minister likewise was "unknown to the Constitution," until a Royal Proclamation of December, 1905, gave him place and precedence next after the Archbishop of York. In a statutory sense then the Cabinet is a committee of the Privy Council, but whereas it has attained to almost unlimited authority the parent body as a whole has lost practically all initiative and has become a deliberative body for the purpose of registration. These changes have not been legislative changes: they have hardly been intentional. They have been the result, as we shall see, of fortuitous circumstances.

When we seek the genesis of our Parliamentary system we are in no better case. Every community has had a form of government from the beginning of its settled state, and England has been no exception. Indeed the title of Mother of Parliaments is claimed for St. Stephens. The difficulty is to point to a stage at which it can be said there is the model upon which all democratic peoples have founded their ideals of political freedom. There are landmarks which have served this purpose in the school text-books—such as *Magna Carta*, and de Montford's imitation of the Sicilian Parliament set up by *Stupor Mundi*, but to regard these as having any relation to the English Constitution is to make a travesty of history. Some approximation may be found in Edward I.'s Parliament of 1295, and certainly the juridical system of that reign came down almost unchanged to recent years. But if we start from the system established by our first national King, we have to admit long subsequent periods of reaction, of impotence, of servile acquiescence, and of degraded subjection; broken, it is true, by brief intervals of successful revolt. Nor were the darker stages of evolution in the beginnings. Under the later Plantagenets there was more political freedom, as it was then understood, than under the Tudors, when Parliament was the abject register of the Royal caprice on the occasions when conformity to constitutional usage was deemed expedient. The one weapon of pressure held by the Commons was the control of the

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national purse. The chronic want of money by our Kings has done more for the political enfranchisement of Englishmen than all the legislators and reformers put together. To the same impecuniosity may be traced the illegalities and tyrannical exactions which have marred the reputations of most of our rulers and cost some of them their crowns. Those who were strong enough to browbeat Parliament did so with impunity: those who could not support their irregularities by force paid the penalty. Whig historians glow with righteous condemnation of Charles I.'s misdemeanours and ignore the far graver abuses of Henry VIII. and Oliver Cromwell.

Parliament was in no sense of the word representative of the people until recent years. For centuries it was a shuttlecock between the Crown and the landed magnates. It could be packed, bribed, or intimidated as the circumstances suggested. The Government could be carried on quite independently of the Commons by the King's Ministers until such time as revenue had to be found. It is true that there was a right of impeaching a Minister who had made himself too obnoxious, but in that case the Commons were only counsel for the prosecution and the Peers were the judges. Hence in order to secure a conviction the two Houses would have to be in agreement. In the same way a Bill of Attainder had to be passed by both Assemblies. A common error is to suppose that the Second Chamber always possessed a democratic leaven and a democratic tendency. Up till the passing of the second Reform Act it remained an aristocratic gathering, elected by the suffrage of the better classes and sharing the sentiments of their order towards the masses. This characteristic of the House of Commons is well brought out by Walter Bagehot in the introduction to the second edition of his *English Constitution*. Speculating as to the effect of the Act upon the composition of the Commons, he wrote in 1872:—

“ In one minor respect indeed, I think we may see with distinctness the effect of the Reform Bill of 1867. I think it has completed one change which the Act of 1832 began; it has completed the change which that Act made in the relation of the House of Lords to the House of Commons. As I have endeavoured in this book to explain, the literary theory of the English Constitution is on this point quite wrong as usual.

According to that theory, the two Houses are two branches of the legislature, perfectly equal and perfectly distinct. But before the Act of 1832 they were not so distinct; there was a very large and a very strong common element. By their commanding influence in many boroughs and counties the Lords nominated a considerable part of the Commons: the majority of the other part were the richer gentry—men in most respects like the Lords, and sympathising with the Lords The middle-class element has gained greatly by the second change, and the aristocratic element has lost greatly. If you examine carefully the lists of members, especially of the most prominent members, you will not find that they are in general aristocratic names The spirit of the two Assemblies has become far more contrasted than it ever was."

What would Bagehot have thought could he have foreseen the Parliament Act of 1911! This transference of almost autocratic power to the Commons, or more strictly speaking, to the Cabinet, is an illustration of the fortuitous manner in which our Constitution has shaped itself. There has been no systematic plan, no definite and unalterable principle. The Constitution, like Topsy, has just "grewed." If the Peers had not thrown out the Finance Bill, as they were constitutionally entitled to do, there would have been no Parliament Act, and the necessity for a reform which "would brook no delay" would not have occurred to our statesmen. And so it has been with all the fundamental changes in our political system. The indolence of Charles II. was the beginning of government by a group of Ministers not under the immediate direction of the Crown. The Cabal was the embryo of the Cabinet which became a well-defined institution owing to the no less fortuitous circumstance that the first Hanoverian monarch neither understood the English tongue nor the English temperament. He had no choice but to leave affairs very much in the hands of his ministers.

The party system had the same haphazard origin. The first defined traces we have of antagonistic divisions in the Lower Chamber are seen in the doctrinal wranglings of the first Stuart period. The Church-reform party and the Presbyterian party were at one in opposi-

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tion to Laud, but distrusted each other. In the Root and Branch Bill of 1641, for abolishing the episcopacy, we have an example of a measure passing the Commons by a majority vote. In the Long Parliament the party trend was also noticeable, but so far these divisions were of a temporary nature and on a specific issue. After the Restoration there was some progress towards a permanent party system. Coincident with the establishment of the principle grew up the practice of bribing members, a practice which became shameless in the century and a half which followed. Soon the parties were distinguished by names, and then by nicknames which survive to this day. The Petitioners and the Abhorrrers were dubbed in ribaldry Whigs, an abbreviation of Whigamore by which the West of Ireland peasantry were designated, and Tory, which meant an Irish brigand. The implication of these nicknames was that the one party was composed of rebel Covenanters and the other of brigand Papists.

The Restoration is the first of three periods which may be taken as the beginning of modern Parliamentary form. The second starting point is the Declaration of Rights which theoretically at least made Parliament supreme and the Royal prerogative subject to Parliamentary sanction. The Petition of Rights had paved the way for this recognition of the sovereign people's will, and a further step was the Mutiny Act which by having to be renewed annually gave Parliament virtually the control of the army. The third stage is the Act of Settlement which further extended the powers of Parliament and restricted those of the Crown. The last is in my opinion the best adapted for a connected survey of the Constitution. One curious phase of this epoch is that the champions of the supremacy of the House of Commons were the Tory squires who composed the majority of its members. They were jealous of the growing influence of the secret committee of Ministers which had thus come to be known as the Cabinet, and looked with suspicion upon its practice of keeping no records and eluding personal responsibility.

Starting, however, at this comparatively recent date no very comprehensive description can be given of our Constitution for the reason, as I have already said, that so much of it is unwritten, so much depends upon precedent and upon the absence of precedent. There is

no finality about it as in the case of the American Constitution. The basic principle is that Parliament, as expressing the will of the nation, is supreme. It can make and unmake laws. Having been elected by the people, it is not answerable to the people during its term of authority. It may even prolong its life beyond the allotted years, as in the case of the Septennial Act and of the present Parliament. In theory authority is shared by the Crown, the Lords and the Commons. Every Act is the Act of the King, but the King has no responsibility. He takes guidance from his ministers, who are supposed to reflect the wishes of the people. The Monarch can withhold his approval of any measure submitted to him, but as two hundred years have elapsed since the Royal prerogative was so exercised, the right may be said to have fallen into abeyance. The axiom that "the King can do no wrong" is strictly correct, in the sense that his advisers would be held accountable for any constitutional irregularity. It is true that by rejecting advice he can constrain his ministers to resign, but the alternative is a new set of councillors whose existence will depend upon the sufferance of the Commons. Hence the Monarchy, whilst retaining many of its old statutory prerogatives, is in practice debarred from taking any executive initiative by the constitutional machinery of which these very powers are supposed to form a component part. The matter is delicately defined by Professor Dicey as follows:—

"The leaders of the people in their contests with the Royal power never attempted, except in periods of revolutionary violence, to destroy or dissipate the authority of the Crown as head of the State. Their policy was to leave the power of the King untouched, but to bind down the action of the Crown to recognised modes of procedure, which, if observed, would secure first the supremacy of law, and ultimately the sovereignty of the nation."

To this fiction of distributed authority must now be added the House of Lords. Prior to the passing of the Parliament Act the Upper Chamber represented a formidable check upon the autocracy of the Commons, which we shall presently translate into the autocracy of the Cabinet. The powers of the Peers were never more than suspensory, from the time when the modern Par-

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liamentary system may be said to have commenced. Custom had reduced the right of absolute veto into a reference of a first-class measure to the arbitrament of a general election. If the Ministerial party were returned in a majority on the rejected issue then it was understood that the opposition of the Upper Chamber would be withdrawn. Put in this way the Lords' veto appears to have been a moderate and salutary check upon an otherwise irresponsible elective assembly. The gravest charge, however, against the hereditary principle has been that social position, interest and tradition inevitably tended to range the sympathies of the House on the side of one party in the other Chamber, and to make them antagonistic to progressive or disruptive legislation. In short the democratic view was that the House of Lords was an adjunct to the Conservative party and that the mere fact of a measure having the support of that political section insured its passage into law. Nor have the several attempts to redress the balance by new creations proved successful. Experience has shown that with conspicuous exceptions, the influence of the Chamber are stronger than the political allegiance of those who have been ennobled to adjust the inequality. The only effect has been to multiply peerages to the detriment of the vigour and mobility of its legislative functions. The same result would probably have followed had Mr. Asquith carried out his threat to swamp the House with three hundred new creations. Since the beginning of the eighteenth century the membership of the Peerage has been trebled and the bestowal of an hereditary title has come to be regarded as resting with the discretion of the Prime Minister rather than of the Sovereign.

Certain executive functions still remain to the House of Lords in addition to its revisory duties. These functions are most lucidly explained by Mr. Sidney Low in his *Governance of England*, a work to which everyone interested in the unravelling of the constitutional enigma must feel indebted. He says:—

“ In the domain of private legislation the work done by the House is of extreme importance. The bills of private individuals or companies are divided, in their initial stages, between the two Houses; and it may fairly be said that Private Bill Committees of the Lords will compare very favourably in authority and impartiality with those

of the Commons. The peers who sit on the Committee are as a rule men of large practical experience and sound legal and administrative training; and it is understood that, on the whole, these tribunals command the confidence of the financial and business community. Outside the Cabinet there are few individuals more powerful than the Lord Chairman of Committees, who can sometimes, by a stroke of the pen, effect alterations in the Standing Orders relating to Private Bill procedure, which may be of much more real and far-reaching importance than many an Act of Parliament that has filled the newspapers for weeks. The burden of Private Bills is increasing; and the work could not be got through at all if it were left to the unaided energies of the House of Commons."

This aspect of the House of Lords cannot be dismissed lightly by the detractors of an hereditary Chamber. If the accident of birth may confer legislative rights on the incompetent the distinction of nobility no less attracts to the order much of the most commanding talent of every generation. Great thinkers, great authors, great scientists and great lawyers are among the recipients of hereditary honours, and to such are added tried statesmen who in the course of succession drift from the Lower to the Upper Chamber. This intellectual strength suggests a middle way to remodelling the composition of the House, if and when reform shall be undertaken—a way which shall preserve historical continuity, whilst eliminating features which if innocuous in reality render the system so vulnerable to attack. The birth prerogative is already only partial in its incidence. The sixteen Scotch and twenty-eight Irish peers sit by right of election. The same principle could be applied to the whole peerage, thus reducing the unwieldy proportions of the assembly to compact limits and excluding the mentally unfit. There is of course the objection that a House elected by its own order, instead of being disproportionately of one party colour, might become exclusively so, but I would deny that the record of the House is one of reaction. No system is ideal: least of all Single-Chamber supremacy.

To say that the Parliament Act has brought about an approach to Single-Chamber supremacy would be to utter a truth which is yet only a half-truth. Supreme power is vested in the Commons provided the life of Parliament extends long enough to override the suspensory veto of the Lords. Granted sufficient lease of existence there is legally speaking nothing that the popular assembly cannot do. A general election or a revolution is the only safeguard against a legislative body which is in every other respect a law unto itself, and the first of these deterrents is only operative at statutory intervals. It is here that we come upon the half-truth. A vote in the Commons does not reflect the considered judgment of the collective assembly: it is nothing more than the automatic decision of a majority of members who give formal approval to legislation over which they have no control. The official opposition may form nearly a moiety of the House: legislatively it is impotent. The body of national opinion it represents is for the time being "disfranchised." Even its recognised function of opposition is restricted, since freedom of discussion has been fettered by the rules of closure and the time-table. Again to quote Mr. Low:—

“How little real control members of the Commons, on either side, can exercise over the legislation proposed by Ministers has been strikingly illustrated in almost every session since 1893, when measures of the largest scope, bristling with controversial detail, on which it is inconceivable that all those who constitute the majority—to say nothing of the minority—of the House could have seen absolutely eye to eye, have been voted through at the call of the Cabinet, with a considerable proportion of the clauses not so much as discussed in Committee. It would seem as if the rank and file of the predominant party are content to give a free hand to their leaders, without even taking the trouble to look into the Bills they are asked to pass into law.”

The defence of the party system is based on the contention that there is no fairer method of securing the opinion of the nation than by a majority vote of the constituencies. But there is no guarantee that a majority division in the Commons will reflect anything of the kind. The late Coalition party, for the cogeries

of bodies which kept the Radicals in office from 1906 to 1915 was a Coalition, was an example of how political groups may sell their support to measures with which they have no sympathy, and which are even opposed to the interests of those who have elected them, in exchange for concessions which the Cabinet, the other party to the bargain, might not have made if it had commanded an independent majority. I shall not be guilty of introducing controversial subjects if I cite the Nationalist and Labour parties as illustrating this point. The Irish vote has been avowedly contingent upon the fulfilment of a covenant within a given date. As long as this compact was observed Mr. Redmond's party would give unconditional acquiescence to the rest of the Ministerial programme even when it affected Irish interests. Whatever interpretation we may put upon Nationalist motives will not alter the fact that for the last five years the fate of the present Parliament has hung upon the goodwill of a section representing one-eighth of its numerical strength. So much for government by majority. And there can be no remedy against this possible control of the destiny of a Parliament by a refractory group.

Nor can it be said that a legitimate and homogeneous majority of the Commons gives free expression to its convictions. The fate of a party majority depends upon the survival of the Ministry it supports. There have been cleavages, separations and re-groupings, but instances are rare. Party loyalty is taken for granted and is moreover a question of self-preservation. A member's seat, the suffrage he enjoys, the emoluments his position carries, are contingent upon his obedience to the party machine, and the machine is controlled by the Cabinet. Payment of Members has completed this obligation to passive obedience, and the lure of £400 a year is likely to attract in ever increasing proportions politicians of the carpetbag-type who will regard a seat in the House of Commons not only as a source of influence but as a source of income. The powers of the Commons may make a bold parade on paper, just as in a less degree may the powers of the Lords and of the Crown, but when all is said we come back to the one solid ground of fact that for all practical purposes the whole executive and legislative authority of the realm is vested in the hands of a score

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of office-holders, not selected by Commons, Peers or Sovereign, but at the discretion of a single individual—the Prime Minister.

So far I have been engaged in clearing away the debris of legend and fable which conceals the true significance of recent Parliamentary developments. We have now got down to the bed-rock of the system, to find that we are ruled by as despotic a bureaucracy as can be found in any of the Continental Empires. I would go further and say that given a masterful Prime Minister who can mould his colleagues, such as a Beaconsfield and, up to a certain point, a Gladstone, we have as near an approach to a dictatorship as a democratic Constitution will permit. Moreover it is a secret dictatorship, as secret in its workings as the Council of Ten or the Star Chamber. This point should be borne in mind: the Cabinet is a *secret* committee, not by predilection or design, but by compulsion. As we have seen the constitutional status of the Cabinet is that of a Committee of the Privy Council and as such every member is under a binding pledge "to keep the King's Counsaile sure." The actual wording of the oath as administered to-day is:—

"You shall swear to be a true and faithful servant unto the King's Majesty, as one of his Majesty's Privy Council. You shall not know or understand of any manner of thing to be attempted, done or spoken, against his Majesty's Person, Honour, Crown or Dignity Royal: but you shall let and withstand the same to the uttermost of your power, and either cause to be revealed to his Majesty himself, or to such of his Privy Council as shall advertise his Majesty of the same. You shall, in all things to be moved, treated, and debated in Council, faithfully and truly declare your mind and opinion according to your heart and conscience; and shall keep secret all matters committed and revealed unto you or that shall be treated of secretly in Council. And if any of the said Treaties and Councils shall touch any of the Counsellors, you shall not reveal it unto him, but shall keep the same until such time as by the consent of his Majesty, or of the Council, publication shall be made thereof. You shall to your uttermost be in faith

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and allegiance unto the King's Majesty; and shall assist and defend all jurisdictions, pre-eminences and authorities, granted unto his Majesty and annexed to the Crown by Acts of Parliament or otherwise, against all Foreign Princes, Persons, Prelates, States, or Potentates. And generally in all things you shall do as a faithful and true servant ought to do to his Majesty. So help you God and the Holy Contents of this Book."

This bond of secrecy, it will be observed, applies severally and collectively and can only be broken by the Royal sanction, which may be taken to mean at the pleasure of the Prime Minister. There is no obligation to impart to or discuss with Parliament the nature of the private deliberations of the Cabinet, nor is the part taken by any individual Member ever revealed. I cannot resist another quotation from Mr. Sidney Low on this aspect:—

"The Cabinet has carried secrecy and informality to the highest pitch. Its meetings are still supposed to be nothing but casual consultations between a number of Privy Councillors. It has no regular time of assembly. It has no fixed place of meeting. It has no office, no staff, no secretary, no rules, no corporate funds, no permanent location. It could not receive a letter or answer it, except through the First Lord of the Treasury or some other of its members, for it has no note-paper, and no seal, and no petty cash to buy stationery or pay messengers."

Of the inner workings of such a secret committee pledged to silence little can be definitely known, but some light has been thrown by memoirs of ex-Ministers, high officials and private secretaries. From these it is apparent that the presidency of the Prime Minister is more than a formality and that he virtually dictates the subject for discussion and the lines to be adopted. No records are made: indeed it is against the etiquette of these meetings for any written notes to be taken. Another anomaly is the absence of any statutory condition that a Minister of the Crown shall have a place in either House of Parliament. Custom has ordained that it shall be so, but the recent instance of Mr. Masterman retaining his portfolio without a seat in the Commons formed no new precedent. A similar experience befell Gladstone

in 1845-46, and we have it on his authority that "There is no statute or legal usage of this country which requires that the Ministers of the Crown shall hold seats in the one or other House of Parliament." Hence it has come about that the very identification of Cabinet Government with a party majority is the result of custom and expediency rather than of any fixed plan of Constitution making.

The function of the Commons and of the Lords is legislative and registrative. Neither has executive authority. Advice may be tendered and criticism passed upon a Bill or upon items therein. But the measure will have been framed without Parliament being consulted. It is submitted in its complete form and amendments may be accepted or rejected at the pleasure of the Ministerial front bench. If a Government is sure of its majority, the Commons have less control over the legislation they are summoned to consider than the peers with their right of delay. Having gone thus far I am tempted to conclude this effort to elucidate the English Constitution by saying that there is no such thing.



How the Banks Met an Unprecedented Crisis

By RICHARD KEEGAN



THE important part which banking institutions play in the economic life of the nation was never more forcibly demonstrated than in the eventful days immediately preceding and following the outbreak of the great European war. If the country looked to its armed forces on land and on sea to protect it from the danger of defeat at the hands of a formidable foe, it looked no less to its great banks to save it from the peril of a commercial and financial collapse which would have been as disastrous as a great naval or military reverse. The banks, let it be said at once, admirably and efficiently discharged their duty and the country emerged not only triumphantly but with every appearance of added financial strength and prestige from the grave and unparalleled crisis to which it was unexpectedly exposed. Two important factors contributed to that satisfactory result: first, the wise emergency measures promptly put in force by the Government at the suggestion and with the approval of the leaders of the banking community; and, secondly, the cool-headedness and calm confidence not only of the banks' customers but of the public generally. From first to last there was not the slightest indication of panic or despair, and the only disquieting feature was a brief rush of nervous note-holders to convert their paper money into gold coin at the Bank of England. That incident, of which more will be said later, was, however, a trivial affair, and it might never have happened but for a shortage of paper currency of low denomination, a defect subsequently remedied. In other respects the crisis was smoothly surmounted and within a comparatively short space of time banking transactions of all kinds resumed their normal course. The banks, let it be explained, hold the floating capital supplies of the whole community, and

on the eve of the outbreak of war their liabilities to their depositors aggregated roughly £1,100,000,000, a heavy percentage of that sum representing credits granted to customers who had obtained advances against trade bills and other securities. Now it is perfectly obvious that were all depositors simultaneously to seek to withdraw the sums standing to their credit the banks would be unable to meet the whole of the demands made upon them, for the simple reason that their resources are employed in various forms of investment which could not be converted into cash at a moment's notice. The greatest danger to be faced in a time of financial anxiety is undoubtedly a run upon the banks, and it is pre-eminently the duty of the rulers of the nation and the leaders of the financial community to avert such a calamity. Not only would a run cause the ruination of the banks, but the extensive hoarding of cash by the public would so deplete the free financial resources of the country that business, both domestic and international, would be brought to an abrupt standstill. The object in view in August, 1914, was to preserve as far as possible normal conditions in exceptional circumstances. That it was successfully achieved reflects the highest credit upon all concerned, and not least upon the public, who at no time allowed themselves to be scared into a devastating panic. They kept their heads throughout, displayed complete confidence in the stability of the country's financial institutions, and in the end reaped their reward in the shape of complete freedom from disaster.

THE BANKS AND THE GOVERNMENT

In the closing days of July, 1914, and on the eve of the outbreak of war the Bank of England passed through a somewhat anxious time. Its gold reserves had been heavily depleted through various causes. In the first place the joint-stock banks, anticipating a drain upon their resources, had taken the precaution to reinforce their supplies of coin by a draft on their balances in Threadneedle Street. In the second place there had been a fairly substantial export of gold on foreign account. Thirdly, the Bank had to convert its own notes into gold on a scale never previously experienced. The now famous "run" on the Bank in the last three days

of the week ended August 1st, 1914, was the result of a combination of circumstances. Its chief cause, however, was the action of most if not all of the joint-stock banks in meeting as far as possible in the form of Bank of England notes the demands made upon them by their depositors. The lowest denomination of the Bank of England notes being £5, such notes were naturally a most inconvenient form of currency, and as tradesmen and banks declined to change them as a favour for their customers, holders were compelled to exercise their statutory right to demand the conversion of their holdings into gold coin at the head office of the Bank of England. Those who did so included a large number of foreigners to whom gold coin was essential if they were to make their way to the Continent with well-lined purses before war actually broke out. Large numbers of Londoners, too, some of them about to depart for their summer holidays, also rushed to convert their notes into gold if only to obtain small change. How many people were driven to the Bank by motives of fear and under the impression that all was lost unless they speedily converted their cash resources into gold with the object of hoarding it, it is, of course, impossible to say. But the best judges are inclined to believe that of the large crowds which lined the approaches to the Bank of England in those three unprecedented days only a very small fraction was driven there by feelings of apprehension.

Subsequent events would seem clearly to prove that had the joint-stock banks been furnished in advance with an adequate supply of legal tender currency of small denomination there would have been no "run," worthy of the name, upon the Bank of England. The difficulty arose through a shortage of metallic currency and the inability or rather the reluctance of the banks to meet the claims made upon them save in bank notes of comparatively high denomination. In such circumstances the remedy was obvious. It was to supply the banks as quickly as possible with plenty of legal tender paper currency of such denominations that they should be able to avoid paying out either in gold (their supplies of which it was essential to preserve in the national interest) or in notes which their recipients would be compelled to convert into gold at the Bank of England in order to obtain small change. Luckily for the country the first Monday of August was a Bank holiday, so that

the Government and the bankers were given a little breathing space in which to consider the situation. Profiting by their experience of the last three days of the previous week, the banks demanded a three-days' extension of the August Bank holiday. The concession was readily granted, and the decision was also arrived at to issue Treasury or Currency notes for £1 and 10s. By the Friday morning when the banks reopened their doors plenty of these notes were available and the banks were placed in a position to pay out freely in legal tender currency of convenient size, had they been called upon to do so. As a matter of fact, no exceptional demands were made upon them, while all the cash that had accumulated in the hands of tradesmen and others during the extended holiday was paid in with a freedom that indicated the complete restoration of public confidence.

EMERGENCY MEASURES

A shortage of currency was only one of the difficulties that arose in the banking world on the outbreak of war. The London Stock Exchange was closed "until further notice" on Friday, July 31, 1914, and the banks' large holdings of securities thus became unrealisable. At the same time their bills of exchange, which they always regard as one of their best liquid assets, became, as it were, frozen up, owing to the establishment of a bill moratorium releasing acceptors from the obligation of meeting accepted bills at maturity. London acceptors, it may be explained, agree to pay all bills drawn on them on the understanding that the means to pay such bills are in their hands before the bills mature. The means to pay these bills consist chiefly of goods imported into this country for sale and bills remitted here for discount. When the war broke out imports practically ceased for a time, while bills remitted here could not be discounted. Consequently acceptors could not carry out their undertaking to pay, and they accordingly demanded, and were granted, a moratorium. Had this state of affairs been allowed to continue serious embarrassment would have resulted, especially for the banks, which would have been unable to realise either their Stock Exchange securities or their bills of exchange. The Government, therefore, came to their rescue, by undertaking to guarantee the Bank of England against any loss

it might incur in discounting pre-moratorium bills, and as a result of this guarantee the Bank announced its readiness to discount without recourse to the holder all approved bills accepted before August 4th, and declared its willingness to give acceptors the opportunity of postponing payment, charging for its accommodation 2% over Bank rate. Under this scheme bankers and bill brokers by selling their bills to the Bank were enabled to release their capital and to obtain funds for the transaction of fresh business. The privilege was very widely availed of, and the movement of produce and merchandise from and to all parts of the world was facilitated, since capital which would have remained frozen up, had no action been taken, was made available for financing fresh trade transactions.

In agreeing to guarantee the Bank against losses incurred in the discounting of bills of a type not usually discounted by the Threadneedle Street authorities the Government took a very bold step. It was one, however, which was completely justified by the peculiar circumstances and the vital issues at stake. The loss ultimately sustained, will be trivial compared with the other outlays the State has had to provide for in connection with the prosecution of the war. On the other hand the advantages which accrued from the policy adopted were almost inestimable. Suddenly, as it were by the touch of a magician's wand, the deadlock in the discount market was removed, and the financing of our immense international sea-borne trade was allowed to proceed on something like normal lines. Otherwise financial and commercial stagnation would have been inevitable, and the banks would have been unable to perform their normal functions, chief among which, it need hardly be said, is that of financing the trade of the country.

GOLD RESERVES AND BANK RATES

It is the discount rate of the Bank of England that regulates the value of money in this country, and the discount rate in question, or what is popularly known as the Bank rate, depends in normal times upon the quantity of gold lying in the vaults of the Threadneedle Street institution. Before the war the Bank's stock of bullion fluctuated as a rule between £35,000,000 and

£40,000,000 in different periods, and whenever it was unduly depleted the directors put up their discount rate in order both to prevent withdrawals and to attract supplies of specie to London. Gold, it may be explained, is attracted here when the Bank rate is high, because the capital or money which it represents can then be employed here on comparatively profitable terms. Conversely it is withdrawn when it can be more lucratively employed elsewhere.

Apart from the influx and outflow of gold which is the outcome of money market influences there is a constant movement of bullion backwards and forwards in connection with the adjustment of international trade balances. We are speaking now of what happens in normal times. But the weeks preceding the outbreak of war were obviously not normal times and various exceptional factors came into operation. One reason for thinking that Germany foresaw the coming conflict more clearly than any of the other belligerents is the efforts her bankers made, no doubt under the inspiration of her Government, to accumulate as rapidly as possible large supplies of gold. That they were able to do by facilitating the export of German merchandise on a heavy scale and by enormous sales of their holdings of foreign securities. What was generally regarded in the City of London as the first semi-official intimation of a probable European conflagration was the heavy selling of its securities by the Dresdner Bank about a fortnight before the war broke out. The process of liquidation had been in progress for a considerable time, the realisation of German-owned American and Canadian securities being particularly conspicuous. As a result of these sales Germany created large credits abroad against which she was able to draw gold, principally from London.

In the weeks preceding the declaration of war there were large shipments of the precious metal to the Continent, so that when the Bank of England was called upon both to provide metallic currency for the banks and to convert its own notes into coin its stock of gold was abnormally small. And as a result of withdrawals on home and foreign account and the conversion on an unexampled scale of its own notes its supply of bullion was reduced at the height of the crisis to £27,600,000, the lowest figure recorded within the memory of the present generation. The usual steps were taken to prevent

further withdrawals, the Bank rate being raised from 3 to 4% on Thursday, July 30th, 1914, from 4 to 8% on the very next day and finally from 8 to 10% on the Saturday.

But if the Bank rate went up with dramatic suddenness until it reached a standard not seen since the Overend-Gurney crisis of forty-eight years earlier, it came down in a hardly less sensational fashion. When business was resumed on Friday, August 7th, it had been lowered to 6% and on the following day a further reduction to 5% took place. It is extremely fortunate for the country that it has been spared in war time the burden of a higher Bank rate than 5%. Such a low standard, was rendered practicable by the rapidity with which gold was accumulated by the Bank not only in London but in South Africa and Canada. At one time the quantity of the metal held by the Bank and the Government reached the unprecedented figure of almost £90,000,000 and though stocks have since been depleted our supplies are being constantly reinforced by the output of the gold mines of the British Empire, so that there is but little danger of our failing to secure and retain gold sufficient not only to finance international trade balances but to obviate the necessity for any abnormal increase in the Bank rate.

GERMANY'S FINANCIAL MOBILISATION

In the financial as well as in the military sphere Germany was well prepared for war, and the steps she subsequently took to mobilise her pecuniary resources though they may be radically unsound are a striking tribute to her powers of organisation. At the beginning of 1910, the year before the Morocco crisis, there was only about £30,000,000 sterling of gold in the Reichsbank. Twelve months later there was £40,000,000 and at the beginning of 1913 about £45,000,000. By January, 1914, the gold holdings of the Imperial Bank of Germany had risen to £60,000,000 and when war broke out the total had swollen to about £68,000,000, or some £21,000,000 more than the amount held by the Bank of England. Since August, 1914, by collecting every available gold piece in the country and forcing the public to use paper money, the Reichsbank went on accumulating the precious metal until about the middle of 1915 it possessed upwards of £119,000,000.

What, it will be asked, is the use of all this gold? The ostensible object of large gold reserves during war time is to enable the country possessing them to adjust an adverse trade balance by exporting bullion to pay for imported merchandise against which there is no corresponding export of commodities. Germany as the holder of a large stock of gold could buy abroad such articles as she needed, paying for them by shipping her bullion. Unfortunately the vigilance of the British fleet has brought her sea-borne trade practically to a standstill and the very articles she requires most having been declared contraband she cannot obtain them, even through neutral channels, except by trickery and subterfuge. Consequently she is carrying on very little trade and her big accumulation of gold cannot be usefully employed, though, as a window-dressing operation, it serves, no doubt, to impress both the public at home and sympathisers in neutral nations. Its advantages are thus to a large extent sentimental rather than practical.

Let us hope that Germany will continue to be prevented from using her gold, so that it will be available as a substantial instalment of the big indemnity that will eventually be demanded from her by her conquerors. The Reichsbank having taken steps to hoard gold proceeded to use its note issuing powers for the purpose of assisting the Government in the financing of the war. In August, 1914, it discounted £200,000,000 sterling of bills, £117,000,000 of that amount being drawn out in notes. It next proceeded to establish War Loan Banks, War Credit Banks, and War Aid Banks all over the country, under the patronage of the municipalities, and to make use of the mortgage banks already available. Government and other securities and produce were pledged with the war banks, advances being made to the extent of 75% on the first named class of security and to the extent of 45% on the others. The advances were made in war bank notes, which were declared legal tender, and the mortgage banks were empowered to issue notes of a similar type. In this way an enormous amount of paper currency was made available and was ultimately applied to subscriptions to the various war loans. The country, through its different classes of special banks became a vast pawnshop, and people by pledging their securities, produce and other property were placed in a position to help the Government to finance the war.

Hence the boasted success of German War Loan operations. The real difficulty will arise when the public are called upon to repay the advances made to them by the banks and to redeem their pledged properties. If they cannot do that and if the banks are forced to realise the security they hold, it is obvious that there will be a tremendous depreciation in the value of all classes of pledged property, from gilt-edged stocks to cheap jewelry.

FRENCH AND RUSSIAN BANKING

In other Continental countries as well as in Germany the outbreak of war caused an extraordinary demand for money, and special steps had to be taken for meeting it. In France the limit of the note issue of the Bank of France was raised from 272 to 480 millions sterling, and the Bank was authorised not to pay its notes in gold. Happily the Bank possessed a large stock of the precious metal, its holding at the outbreak of war being about £165,000,000, against which there were about £267,000,000 of notes in circulation. Since then the stock of gold has been slightly depleted partly owing to the shipment to London of £20,000,000 as the basis of a large credit for the financing of purchases of war material, but the note circulation has risen to upwards of 400 millions. Nevertheless the strength and stability of France's greatest banking institutions remains unimpaired. The other banking enterprises of the country, judging by the experience of important undertakings like the *Crédit Lyonnais*, have emerged from the ordeals of the war crisis with conspicuous success. This result is largely due to the effective measures adopted by the Government to prevent panic and to the calm, quiet confidence of the people in the ultimate triumph of their cause. The wealth of France is solid and not 'spectacular, and, thanks to the thrifty habits practised by the people for generations past, the nation has been able to bear with remarkable ease the abnormal financial strain to which it has been subjected. Russia, like France, was the possessor of immense stocks of gold when the war broke out, her holding amounting to over £160,000,000, and she was able to remit £8,000,000 to London to help her rate of exchange which had been disorganised by the stoppage of her export trade. Prior to the war

the State Bank could issue only 30 millions sterling of notes beyond the amount of gold held, but it has since been authorised to raise to 130 millions its notes issued without gold cover. It has used its powers sparingly, however, and has carefully avoided an undue inflation of its issues of paper money. The heaviest demands were made on the Russian money market in the first weeks of the war in connection with mobilisation. The State Bank had to finance the Government, while the savings banks and the private credit institutions were faced with large withdrawals by reservists and their families. But no panic whatever arose and deposits soon began to flow back into the banks with the result that within a few months they exceeded the figure at which they had stood at the end of July, the biggest banks of Petrograd and Moscow showing at the end of three months of war an addition of over £8,000,000 to their total deposits.

• AMERICAN BANKING

Even had there been no war American bankers would have passed through an interesting experience in 1914 and 1915. The close of the former year saw the establishment of twelve regional banks, each bank being similar in many respects to the Bank of England. The regional banks are the banks of the various subordinate banking institutions in the region covered. The objects of these establishments were to promote the more equitable distribution of loanable capital throughout the United States, to increase the supply of currency, and to prevent those periodical spells of monetary stringency which proved so detrimental to the interests of American enterprise generally. How far these objects will be attained time will show, and it is yet too early to decide whether regional banks will accomplish for the American business community all the advantages expected of them. The system has been described as "a process of pyramiding" with the regional or Federal Reserve Banks, as they are generally called, piled on the National Banks, and the Federal Board with its central reserve gold fund standing at the apex or top of the Federal Reserve Banks. It strengthens the national banking system against emergencies and is a means of insurance against panic, but it is rather cumbersome and altogether too expensive. On the other hand supporters of the Federal Reserve

Banks claim that they are destined to play an important part in the development of foreign trade; that they economise the use of capital and make its use more effective by lowering the prescribed reserve requirements; that they have released hundreds of millions of capital which will provide additional credit; and that by the powers given to them to suspend reserve requirements their existence renders a financial panic of the 1907 type practically impossible. One of the aims of the authors of the new system was to put an end to the existence of an alleged Money Power or Trust, which was declared to be holding the trade and commerce of the country in thralldom. Had this allegation been correct and had the so-called Monetary Power, in the extension of monetary accommodation discriminated against deserving borrowers, it is a reasonable supposition that the organisation of Government-controlled Federal Reserve Banks would have been followed by a rush of applications for loans from business people who had been unfairly treated by the alleged Trust. As a matter of fact, the new facilities provided for relieving oppressed borrowers were sparingly used and the banks were not called upon to create currency to the extent expected. For instance, about the middle of May last, the Federal Reserve Banks held over 243,000,000 dollars of gold or gold certificates, or more than sufficient for the issue of 500,000,000 dollars of Federal Reserve notes. Yet the actual amount of such notes then outstanding was only 10,859,000 dollars. At the same date the total of bills discounted was only 34,628,000 dollars, while the aggregate cash in hand was no less than 280,208,000 dollars. It is thus evident that there was no pressing demand for accommodation and that the suggestion that borrowers, previously at the mercy of the Money Trust, would be overjoyed to take advantage of the new scheme was not justified. Apart altogether from the inauguration of the new system, conditions in the American banking world have for some time been abnormal. When the war broke out the United States owed this country about £90,000,000, payable within a short time. The bankers of New York accordingly raised a gold fund of £20,000,000 and despatched it to Ottawa for the account of the Bank of England, and at the same time credits were created here against which exchange might be sold in New York. These arrangements

proved effective and eventually its exchange in New York fell to a point which stimulated not exports but imports of the precious metal. The Anglo-American trade balance has completely changed since the Autumn of 1914 and owing to heavy purchases of American goods by ourselves and our allies, the United States is now owed so much by Europe that gold shipments from the latter to the former are almost unavoidable. It is to be hoped that the promised co-operation of American and English bankers, and sales of American securities by England and France will prevent such shipments from reaching dimensions likely to cause financial disturbance, which would be beneficial neither to America nor to Europe.

CANADIAN BANKING

In Canada the banks had all been pursuing a very conservative policy and steadily strengthening their resources for some time before war broke out, so that when the shock came they were well able to withstand it. Nevertheless a certain amount of public nervousness existed, as was only natural in view of the closing of the Stock Exchanges and the sudden cessation of international transactions. Accordingly a run on the banks, which would precipitate financial and business disorder had to be guarded against. Thanks to the steps taken by the Government, after consultation with the leading bankers, the situation was saved, and all danger of a panic was averted. In the first place the Dominion Government agreed to issue Dominion notes to such an amount as was necessary against securities deposited by the banks and approved by the Minister of Finance. Secondly, the banks were authorised to make payments in bank notes instead of gold or Dominion notes. Thirdly, the redemption in gold of Dominion notes was suspended. The power to issue such notes was increased while the banks were permitted to issue excess circulation up to 15% of their paid-up capital and reserves. The object of all these measures was to provide plenty of legal tender currency for meeting any exceptional demands that might arise and at the same time prevent the hoarding of gold by private individuals. Their real value lay in the assurance to the public and the banks that the Government had taken such steps as were practicable to enable business to go on as usual. They were little

used but the mere fact that they were available in case of necessity served to promote confidence. There was no general cessation of business, and the banks were able without difficulty to meet all their obligations. Most of them experienced a reduction in their deposits payable on demand, which was not unnatural in the circumstances, but it is noteworthy that the decrease in the deposits bearing interest and payable only after notice were of trivial dimensions, in spite of the exceptional opportunities offered for investing in first-class securities at remunerative rates. In the second half of 1914 the Canadian system of extensive branch banking and automatically expanding note circulation proved itself, as before, to be admirably suited to the country's peculiar requirements. Since the outbreak of war something like normal conditions have been restored and the position of the Canadian banks both individually and in the aggregate differs but little from what it is in time of peace. Their holdings of gold coin and of Dominion notes have increased, while their loans and discounts have been reduced. On the other hand, their time deposits have gone up, while their demand deposits have been almost maintained. The stoppage of the importation of capital from the mother-country may arrest developments from which the banks derive no inconsiderable profit, but their ordinary commercial business is still substantial and, conducted on sound lines, continues to yield safe profits. When the war is over they will be better fitted than ever to play a useful and indeed essential part in the exploitation of the Dominion's vast and varied resources.

BRITISH BANKING •

British banking institutions in particular have emerged from the ordeals of the war with noteworthy success. Such a world-wide crisis as arose in August, 1914, was never foreseen and no special preparations had been made to meet it. Few authorities had anticipated the sudden and simultaneous closure of the world's Stock Exchanges, the cessation of international trade transactions, and the declaration of a moratorium in respect of bills of exchange. Even under normal conditions the banks would be unable to meet at short notice

a general withdrawal of their depositors' balances, not because their assets are not sufficient to cover their liabilities, but because such assets consist of various classes of investments which are not immediately realisable. It will readily be understood, then, that their inability to meet a run was greatly increased by the sudden freezing up of assets which in normal times would have been quite liquid. Had feelings of panic been allowed to spread and had the banks not been provided with adequate supplies of emergency currency it is quite possible, if not certain, that the country would have witnessed the greatest catastrophe in British financial history. Most, if not all of the banks, would have been compelled to suspend payment, and, in view of the difficulty of enforcing at such a time their shareholders' liability in respect of uncalled capital, it is problematical whether they would have been able ultimately to pay their depositors twenty shillings in the pound. From such a calamity, however, the country fortunately escaped, partly owing to the adoption of the various emergency measures previously mentioned and partly owing to the calm confidence displayed not only by the banks' customers, but by the general public. The latter exhibited remarkable self-control and cheerfully and patriotically followed the Chancellor of the Exchequer's advice not to hoard cash. The result was that the banks were not called upon to meet any exceptional demands and that the powers given them to enable them to do so were only very sparingly used. Had they wished they could have obtained currency notes up to the extent of 20% of their deposit and current accounts. In other words they might have secured for paying their depositors something like £200,000,000 worth of the new currency. As a matter of fact only about £6,000,000 of notes were issued to the banks and practically the whole of this amount was redeemed by the end of September. Never at any time was there a whisper of suspicion regarding the ability of any bank to meet the reasonable demands of its customers, and never was there a hint that any institution might in order to strengthen its position be obliged to call up a part of its uncalled capital. The real difficulties that arose were satisfactorily surmounted; the imaginary ones never materialised. The motto of the nation in the hour of crisis was "business

as usual," and nowhere was that motto more thoroughly put into practice than in the banking world. As soon as it was evident that the public was determined to keep cool the banks freely accorded credit facilities to those who were entitled to them and thus assisted the resumption of trade, domestic and foreign, upon normal lines. Their vast funds were readily made available, and far from a shortage of money being experienced it was soon found that the country's supplies of floating capital were in excess of the market's requirements.

PROFITS, DEPRECIATION, AND DIVIDENDS

Notwithstanding the abnormal level it reached at the height of the crisis the Bank of England's rate of discount averaged only £4 0s. 9d. per cent. in 1914, as compared with £4 15s. 5d. in the previous year. At the same time the open market rate of discount for three months' bills was only £2 17s. 6d., as against £4 6s. 10d. in 1913, while the rate for day to day money was only £1 17s. 11d. in comparison with £3 14s. 5d. And not only were money rates relatively low but important classes of business from which the banks derive considerable profits, such as Stock Exchange transactions, and new company flotations, were practically non-existent in the last five months of the year. It was not surprising then, to find that 1914 proved an appreciably less profitable year than its immediate predecessor, the total net earnings of the banks of the country being £15,741,000 as against £17,660,000 for 1913. The second half of the year was distinctly less lucrative than the first, judging by the records of those banks which issue separate half-yearly accounts. The falling off in the profits in individual concerns was in no instance very marked and some could without difficulty have maintained their dividends but for their decision not to delay the task of making timely provision for the depreciation of their holdings of gilt-edged and other securities.

This problem of depreciation is one of the most serious which bankers have to face. Within the past eighteen years there has been an enormous decline in the value of all kinds of gilt-edged investments, more particularly those of the irredeemable variety. For this shrinkage

MEDAL RIBBONS OF THE BRITISH ARMY.



North-West Canada
1885.



East and Central Africa,
1897-99.



Africa General Service
Medal.



West Africa, 1890-1900



South Africa (Queen's
Medal), 1899-1902.



4th India General Service
Medal, 1901-2.



Matabeleland 1893



Distinguished Conduct in
Field Medal



Tibet, 1903-4



Central Africa, 1894-98



5th India General Service
Medal, 1908



Second Ashanti, 1896



Yeomanry Long Service
Medal.



3rd India General Service
Medal, 1895-98.



Long Service and Good
Conduct,
Regular Army.



Sudan, 1896.



South Africa (King's Medal),
1901-02.



Territorial Force
Efficiency Medal.



Sudan 1896,
Khedive's Medal



3rd Ashanti, 1900



Militia Long Service
Medal.

in values bankers have had to provide almost year by year very large sums. It is to be feared that in the future still larger sums will have to be allocated for the same purpose, since the effect of war borrowing at comparatively high rates of interest must inevitably be a further serious drop in the value of all kinds of securities the return on which is fixed. It is just possible, however, that some welcome relief will be afforded under the scheme by which Consols are convertible on the basis of £66 13s. 6d.% into redeemable $4\frac{1}{2}\%$ War Loan Stock. If they fully avail themselves of this privilege, the banks will not be under any necessity to make further provision for the depreciation of Consols, since it is understood that virtually all of them wrote down their holdings of the premier security to $66\frac{1}{2}$, the minimum price fixed by the Treasury. If, however, the problem of providing for the depreciation of Consols is solved, always supposing that the banks have been able to apply for an amount of War Loan exceeding by one-third their holding of the former security, the problem of providing for the depreciation of other stock remains, and there is no doubt that it will prove a formidable one. Still as long as their business is conducted on sound lines and large profits continue to be made the banks will be able year by year to appropriate large sums for the writing down of the book value of their investments in securities.

As the results for the first half of 1915 clearly indicate, the process of providing for depreciation involves sacrifices on the part of bank shareholders, who must, we fear, be prepared for some further curtailment of their dividends. The best they can hope is that such curtailment will be only temporary and that ultimately the old rates of distribution will be restored. Meanwhile, it is desirable to point out that although banks appear to be able to earn a quite substantial return on their paid-up capital—in 1913 they earned nearly 25% on such capital and in 1914 over $24\frac{1}{4}\%$ —their profits are relatively small in proportion to the total funds at their disposal. Thus, in 1914 the return obtained on the total funds employed, comprising capital, reserves, and deposits, was no more than 1.16%, and even in 1913 it was only about $\frac{1}{4}\%$ more. It will, therefore, be realised that the margin of banking profit is cut very fine, and that the exercise of the greatest care, circumspection, and discrimination is needed to ensure its realisation.

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BANK OF ENGLAND RATE OF DISCOUNT FOR THE PAST FIVE YEARS

Date.	Per Cent.	Date.	Per Cent.
1910 Jan. 6	4	1912 Feb. 8	3½
" " 20	3½	" May 9	3
" Feb. 10	3	" Aug. 29	4
" Mar. 17	4	" Oct. 17	5
" June 2	3½	1913 Apr. 17	4½
" " 9	3	" Oct. 2	5
" Sep. 29	4	1914 Jan. 8	4½
" Oct. 20	5	" " 22	4
" Dec. 1	4½	" " 29	3
1911 Jan. 26	4	" July 30	4
" Feb. 16	3½	" " 31	8
" Mar. 9	3	" Aug. 1	10
" Sep. 21	4	" " 6	6
		" " 8	5

AGGREGATE LIABILITIES AND ASSETS OF THE BANKS OF THE UNITED KINGDOM

	1880	1890	1900	1910	1914
LIABILITIES :	£	£	£	£	£
Paid-up Capital ...	56,998,000	70,973,000	82,194,000	88,516,000	85,184,000
Reserves ...	22,828,000	33,278,000	45,817,000	49,198,000	49,209,000
Notes ...	34,848,000	39,477,000	45,023,000	48,174,000	56,846,000
Acceptances ...	19,197,000	27,190,000	28,291,000	54,242,000	50,770,000
Deposits ...	356,070,000	541,405,000	825,419,000	962,183,000	1,822,287,000
Profit Balance ...	3,908,000	5,174,000	5,838,000	5,602,000	6,829,000
Total ...	498,914,000	717,496,000	1,033,182,000	1,217,960,000	1,571,107,000
ASSETS :					
Cash ...	86,281,000	97,248,000	151,101,000	173,072,000	808,191,000
Call Money ...	26,416,000	44,986,000	69,143,000	106,330,000	105,137,000
Investments ...	90,541,000	155,576,000	227,425,000	242,345,000	274,999,000
Bills ...	56,880,000	64,270,000	66,084,000	83,924,000	117,513,000
Advances ...	212,503,000	316,017,000	471,891,000	532,956,000	686,582,000
Acceptances ...	19,197,000	27,190,000	28,291,000	54,245,000	50,770,000
Premiums ...	8,486,000	12,208,000	20,185,000	25,063,000	27,916,000
Total ...	498,914,000	717,496,000	1,033,182,000	1,217,960,000	1,571,107,000

British Opportunities in Russia

BY LOUIS A. ROJANSKY



THE vast domain of Russia, extending over more than half the continent of Europe and a third of Asia, covers 8,760,000 square miles, with a population of over 170,000,000. Her neighbouring countries are: Sweden, Germany, Austria, Roumania, Turkey, Persia and China. The seas at the northern and southern confines of Russia, leading into the different waterways of the world, give her easy means of communication with all the countries not her immediate neighbours. The number of different races and peoples living under the sway of the Russian Tsar is great. Russians, Poles, Jews, Germans, Bulgarians, Czechs, Armenians, Georgians, Esthes, Livonians, Bashkirs, Tartars, Khirghiz, Kalmuks and many other small nationalities, contribute to the astonishing variety of Russian ethnography.

Only those who are specially interested in studying the great Empire of the East know the enormous wealth hidden in its soil. Even with the elementary methods of exploitation which still prevail in Russia, the production of certain minerals rivals that of other countries with a more advanced system of working. Copper was produced in 1910 in Russia to the extent of 1,400,000 poods (1 pood = 36 English pounds); pig iron—a little short of 200,000,000 poods; iron and steel—something like 180,000,000 poods; manganese—over 45,000,000 poods; and gold—1,200,000 ozs. Coal was produced to the extent of 1,600,000,000 poods and petroleum over 600,000,000 poods. Only of recent years have these figures become the average annual production, owing to the greater interest shown by foreigners who have invested their capital in concerns which yield enormous profits.

Russia's vast area, rich soil and large peasant population, make her pre-eminently an agricultural country. She can justly be called the granary of the world, standing at the head of the cereal producing countries. Even the United States come behind in many instances,

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as the following comparison shows: In 1912 Russia produced 90,000,000 quarters of wheat to 87,000,000 quarters of the United States; over 55,000,000 quarters of barley were produced in Russia against 28,000,000 quarters in the United States.

The need of agricultural implements and machinery which Russian industry alone is unable to supply, created the greatest scope for foreign manufacturers, who availed themselves of the biggest market for their output. So far, the competition between the United States, the United Kingdom and Germany, has resulted in the predominance of the United States, and this is the only important article imported into Russia in which America took the first place with Germany second.

The position of Russia as an agricultural and raw material producing country is clearly illustrated by the following table:—

1912.

	Foodstuffs	Raw material and partly manufactured articles	Animals	Manufactured articles	Total
Exports ...	Roubles 788,600,000	Roubles 578,800,000	Roubles 30,100,000	Roubles 29,600,000	Roubles 1,427,100,000
Imports ...	140,200,000	516,300,000	2,600,000	875,500,000	1,034,600,000

Not only in regard to agricultural machinery is Russia compelled to go abroad to supply her wants. Far outdistanced by the other great countries of Europe in the progress of industrial development, Russia has been the biggest and best buyer of the manufactures of such countries as the United Kingdom, Germany, France and Austria, being in return a very advantageous provider of the needs of these countries in raw materials.

If the reader will turn to the table at the end of this article, he will be struck by the difference between the figures of imports to Russia from the United Kingdom and Germany and Austria. Allowing even for the proximity of Germany and Austria to Russia, these figures seem to be utterly out of proportion to the respective industrial positions of the various countries. The secret of Germany's success does not at all lie in the superiority of German manufactures over British, but in the methods adopted by German commercial men, which have nowhere met with greater success than in Russia.

If in the manufacture of chemicals no country has attempted to compete with Germany, there was no reason why copper goods should be imported to Russia from

Germany in a recent year to the value of £165,000 against £8,000 from the United Kingdom; dynamos and motors over £233,000 against £59,000; electrical appliances £280,000 against £6,500; implements and tools £1,175,450 against £252,800, to give only a few of the most striking instances. Wherein, then, lay the secret of the domination exercised by Germany, and to a smaller extent, by her faithful follower Austria-Hungary over Russian markets?

The answer to this question will be a surprise to the average Briton. It is not that Russian buyers recognised the superiority of German workmanship or the special quality of German manufactures. It is to be found in the steps taken by German manufacturers, merchants and exporters to win the confidence of Russian consumers, to ease the task of the Russian buyer, and to avoid the obstacles which necessarily arise in commercial relations with a foreign country.

*The Russian is conservative in all his enterprises, and abandons his peculiarities with great difficulty. However much he may be in need of a certain article, he very reluctantly exerts himself to get it; the effort necessary to secure articles from foreign countries tax him over much. First and foremost there is the question of language. German manufacturers long ago adopted the method of translating all printed matter into their customers' own language; this proved the greatest factor in promoting Germany's trade with Russia. The Russian buyer was saved all trouble; he was never in doubt for instance about the exact prices of the articles offered by German manufacturers; they were given him in Roubles, not in marks. The Russian buyer would thus feel as if he were dealing with his own countryman. Another very effective means which the Germans used with magnificent results, was the influx of German commercial travellers in Russia, who were conspicuous everywhere, never even missing unimportant towns however small the likelihood of doing business. These travellers, speaking Russian, were always ready to offer every kind of manufacture to those in need of them; their "pushfulness" created markets where none existed before.

Another advantage which the German trader enjoyed in Russia came from the response of the German Banks to any demands made upon them. The English method of advancing funds on negotiable securities only,

was entirely unknown to German bankers, and the German merchants were never hampered by lack of capital. The German Government itself was very much interested in helping the merchants in that respect and such big concerns as the Deutsche Bank, the Dresdner Bank, Disconto Gesellschaft, were all instrumental in bringing about the control over the Russian market, which the Germans exercised during the last fifteen or twenty years.

Russian buyers are not accustomed to pay in advance for goods ordered or even to pay on delivery. The system of credit for six and more months prevails in Russia, and he who would obtain a standing on the Russian market is foredoomed to failure if he stipulates for immediate payment. It is not a question of trust with the Russian buyers; it is simply an old way of doing business from which the Russians have never departed, and there exists very little likelihood of change in the near future. The Germans understood this peculiar habit of the Russian merchants and conformed to it. Big German firms which could afford to extend for long terms the payments due to them, enjoyed no advantage over the smaller ones, thanks to the liberal advances made by German Banks to merchants who have little capital. The system of discounting trade bills with terms of nine and twelve months (a frequent occurrence in Russo-German transactions), was one of the most powerful agents in furtherance of German trade relations with Russia.

Is the Russian market really worth the trouble involving in starting a new business policy? This question is now often asked even by those in the industrial world who should have more knowledge. The possibilities of trade with Russia are enormous. Much has been said on this subject in the last few years, but, somehow, it has fallen on deaf ears.

The Russian Minister for Foreign Affairs, M. Sazonoff, has shown quite clearly that the English manufacturers have now before them an open road to the capture of the £60,000,000 worth of trade yearly with Russia which hitherto has been Germany's. It would be no exaggeration to say that the English manufacturers could easily double this, in itself quite respectable, figure. Only half, or less than half, of the 170,000,000 inhabitants of Russia are consumers of foreign manufactures. There are, however, unmistakable signs of the awakening of the peasant population to the claims of industrial

products; the demand will be satisfied by an industrial effort which Russia is as yet unable to make. The gap created by the ousting of Germany from the Russian market must be filled now or in the near future, and it is for British manufacturers to decide to occupy it. The potentialities of Russian trade can only be underestimated; whatever might be imagined as Russia's requirements, would fall short of her real needs.

But not only for the British manufacturer is Russia of foremost importance; the British investor who places his money in concerns exploited in the remotest corners of the earth, would do well to turn his attention to the naturally richest country in the world. Thousands and thousands of miles of iron, copper, manganese, gold, silver, platinum, precious stones of every description, await the coming of enterprise and capital.

So far, the United States occupy the first place in the production of coal and petroleum, but with sufficient capital, there is no doubt that Russia can equal them in the production of coal and easily beat them in the production of petroleum. The Donetz coal basin, which is the largest coal-field in Europe, the Ural coal-fields, the many other coal-fields in Siberia and Altai, might supply the rapidly growing needs of Russian industry, and leave a large margin for export. The Baku, Maikop, Cheleken oil-fields belong to the poorest districts of Russian oil-bearing lands.

The use of liquid fuel is becoming more and more extensive, tending in many instances to replace coal, and although there exists no fear as to the exhaustion of the world's coal deposits in the near future, the immeasurable quantities of Russia's oil supplies remove any anxiety which might arise concerning fuel. With oil first in magnitude, the other mineral riches of Russia cannot be overlooked. Until very recently, Russia's need for copper could not be satisfied by home supplies and the imports were more than double the production. The annual output now exceeds 2,000,000 poods, with every prospect of heavy increases. Russia is well on the way to become an exporter of copper, her deposits being very rich.

Iron ore in Russia is extracted in increasing quantities but lack of capital compels her at present to occupy a rather unimportant place in the list of the world's iron producers. A striking example of the need of capital in

Russian industry can be shown in the case of manganese. The beds of manganese in the Caucasus are the richest in the world. Russia produced in 1912 about a million tons, or two-thirds of the world's consumption. Shortage of capital, however, compelled the abandonment of many rich mines. The new gold-fields in Eastern Siberia, again, only await the appearance of the capitalist. Then there are the immense territories in European and Asiatic Russia covered with forests. The total forest area in European Russia is estimated at 464,611,000 acres, in Finland at 52,500,000 acres and in Asiatic Russia at 384,939,000 acres. It must be pointed out that the figures given for Asiatic Russia are only those of forests which have been surveyed; an enormous region of unexplored lands in Eastern Siberia will certainly add greatly to the forest area. Yakutsk alone is estimated to possess an area of 90,000,000 acres.

Pine, fir, cedar, larch, birch, oak, maple, elm, beech, are among the most common kinds of timber in Russia. With the demand for wood pulp growing and with supplies diminishing as the result of the enormous drain on Canadian and American forests, Russia is the natural future source of supply. A network of railways built in the northern part of Asiatic Russia and improved shipping facilities, would make the future of Russia's timber trade of the brightest.

Although for a maritime country like England, the possibilities of the fishing trade in Russia are not of great interest, there are, nevertheless, certain features of it which should be indicated. Seal, which is in great demand for leather manufactures, is plentiful near Novaya Zemlya, the White Sea and the Mourman coast. The number of seals caught annually off the Mourman coast averages 60,000. This is, of course, quite an insignificant figure when possibilities are considered. British enterprise has here a great opportunity.

Volumes and volumes could be filled with descriptions of the many-sided activities which might be called into play in exploiting Russia's enormous natural resources. Enough has been said to indicate the directions to which the British trader should turn his keenest attention. The Germans were not slow to appreciate their opportunities. Many concerns in the initial state of development were strengthened by their support; many more were started by them, and but for the absence of

free capital, the Germans would have acquired a preponderance in Russian industrial affairs. Happily, notwithstanding the personal efforts made by enterprising German firms and the encouragement and help given to them by the State and their Banks, much has been left undone, and it only remains for the British manufacturer, merchant, investor and banker to step into the breach the war has made. The situation is altogether changed; whereas the Germans were merely tolerated in Russia, were looked upon with suspicion and obtained what they wanted only by sheer persistence and obstinacy, the Briton is sure of a welcome. The Russian will greet him as a helpmate in the development of his country's resources.

One cannot repeat too often the importance for the British public in general, and the British manufacturer in particular, of future relations with Russia. The mutual advantage to be derived is obvious. Statistics more eloquent and significant than those which follow it would surely be hard to compile.

TABLE OF IMPORTS TO RUSSIA FROM GERMANY, AUSTRIA-HUNGARY AND THE UNITED KINGDOM

	Imports from Germany and Austria-Hungary	Imports from the United Kingdom
Agricultural Machinery and individual parts thereof	£ 1,254,000	£ 1,108,000
Aluminium and Aluminium Wares:—		
Aluminium in slabs; wrought or rolled, in rods, sheets, plates, also aluminium wire. Spun aluminium, lace and braid wares, tissues, button-makers' wares, etc.	1,102,000	—
anchors, Grapnels and Chains	11,525	6,900
Animal-drawn Vehicles	5,710	1,800
Boilers and Boiler-makers' Wares	195,655	159,800
Boots and Shoes	108,500	800
Brass and Brass Wares	762,100	18,200
Brewing and Distilling Machinery and Apparatus	87,650	—
Brooms, Brushes and Brushmakers' Wares	31,500	100
Cables, Cordage, Twine and Nets	134,960	43,900
Carbons for electric lighting	24,860	201
Carpets, Rugs, Mats, etc.	17,800	200
Cast-iron Goods (stoves, baths, etc.)	166,700	—

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TABLE OF IMPORTS TO RUSSIA, Etc.—*continued.*

	Imports from Germany and Austria-Hungary	Imports from the United Kingdom
Cement :—	£	£
Portland, Roman and Hydraulic ...	180,650	1,500
Chemicals (heavy)	261,520	184,870
Clocks and Watches	118,145	—
Clothing (Women's and Girls') ...	104,150	6,300
Colours and Materials for Painters (in- cluding Varnish)... ..	168,650	61,000
Copper Goods... ..	165,040	8,000
Cotton Piece Goods (bleached and un- bleached)	35,895	20,538
Cotton Prints	64,000	8,500
Cotton Stockings and Socks	145,900	—
Cotton Velvets and Plushes	95,590	—
Cotton and Woollen Clothing (Men's and Boys')	83,180	5,600
Cotton Yarns	131,055	261,520
Cycles and parts thereof	82,200	56,200
Dynamos, Electric Motors, Transformers, etc.	233,400	59,900
Electrical Appliances for illumination, transmission of power	280,800	6,500
Enamelled Hollow Ware	122,200	4,600
Engine and Boiler Packing	25,380	5,700
Feeding Stuffs (oilcake and bran)... ..	12,695	7,880
Felt Hats and Fezzes	38,400	—
Fertilizers	632,870	59,100
Fire-proof Bricks, Retorts, Crucibles, etc.	198,810	—
Furniture	119,050	2,000
Furriers' Wares	21,165	200
Glassware, hollow (glass bottle, etc.) ...	74,600	900
Gloves (cotton)	109,560	—
Gloves (leather)	85,700	—
Goldsmiths' and Silversmiths' Wares and Electro-plate	141,850	1,986
Implements and Tools :—		
Screw Vices, Anvils, Hand Vices, Wrenches, Blocks and Rollers, Files, Rasps, Coarse Cutting Tools, Coarse Knives, Boring Bits, Chisels, Gauges, etc.	1,175,450	252,600
Internal Combustion and Explosion Motors, Gas Turbines, etc.	654,000	—
Iron or Steel Plates and Sheets (other than tinned and galvanized)	117,300	200,300
Iron or Steel Bars, Rods, Angles, Shapes or Sections	185,260	160,300
Jewellery and Trinkets	183,650	200
Jute Manufactures (including Yarn) ...	17,060	66,000
Knives (coarse and fine)	147,400	2,000
Lace and Embroidery	100,700	44,600
Lamps (metallic filament, carbon filament, etc.)	513,500	200

British Opportunities in Russia

TABLE OF IMPORTS TO RUSSIA, Etc.—*continued.*

	Imports from Germany and Austria-Hungary	Imports from the United Kingdom
	£	£
Linen Manufactures (including Yarn) ...	24,600	86,400
Locomotives, Road (including Steam Rollers)	378,900	187,000
Lubricating Oils and Greases	18,750	—
Machinery Belting	218,500	245,900
Machines (Printing and Lithographic) ...	157,320	—
Manufactures of Iron and Steel Wires ..	58,730	14,700
Milling Machinery	212,115	—
Medicines, comprising Drugs and Medi- cinal Preparations	495,560	22,200
Motor Cars and parts thereof	789,200	127,700
Motor Cycles and parts thereof	24,050	11,700
Musical Instruments	434,450	4,270
Paper, Pasteboard and Cardboard	96,875	11,100
Perfumery and Cosmetics	47,545	15,580
Photographic Goods	215,720	—
Pins and Needles	83,370	—
Plate and Sheet Glass	19,850	6,700
Polishes	47,730	11,800
Pumps and Pumping Machinery	117,930	62,800
Rubber Tyres for Motor Cars and Motor Cycles	60,850	2,100
Rubber Wares... ..	193,945	55,900
Saddlery and Harness and Miscellaneous Leather Wares	73,950	9,500
Sanitary Ware... ..	5,680	33,311
Scientific Instruments and Apparatus (ex- cept Electrical)	442,380	99,000
Screws, Nails, Bolts and Nuts (of Iron and Steel)	59,200	14,400
Sewing Cotton, etc.	124,600	318,100
Sewing and Knitting Machines	458,810	831,700
Silk Manufactures (Piece Goods, Rib- bons, etc.)	254,500	11,500
Soap	15,000	—
Starch	14,840	2,200
Stationery	168,530	66,500
Stoneware, Earthenware and Chinaware	55,650	24,100
Straw Plait and Straw Hats	24,760	3,100
Tools (Machine) :—		
Metal - Working, Wood - Working, Stone-Working Machines, Steam and Hydraulic Forging Presses, Rivetting Machines and Mechanical Hammers	604,200	85,000
Textile Machinery	322,860	995,300
Toys and Games	122,200	10,600
Tubes, Pipes and Fittings (of Iron and Steel)	186,900	30,000
Umbrellas and Sunshades (including parts thereof)	29,950	800
Volatile and Essential Oils	68,240	4,000
Wooden Wares	194,750	4,500

Revelations and Devices of the War

BY CHARLES K. SUGDEN



I.—REVOLUTIONIZED TACTICS

IT is hardly surprising that, in the great cyclone of war which is sweeping over the world, many of the theories and precepts of peace have been violently uprooted and whilst this is true both of finance and economics it is no less so of military operations. It may be said, with little fear of contradiction, that the methods of warfare which have been imposed upon commanders in this campaign were not foreseen by any tactician and a search through the standard text books from which soldiers of all nations alike derive their information and formulate their theories reveals little that is prophetic of such methods. The official field regulations issued by the various Governments to their armies are supposed to cover every problem in the conduct of warfare but these show no greater degree of prescience although the German work, as might be expected in the case of a nation which has applied so large a proportion of its reasoning and thinking powers to warfare and its problems, anticipates, in a slightly fuller measure than the others, the necessities of the present hour. The causes that have tended to revolutionize both economic and military beliefs are broadly the same; they spring from the fact that in both cases unprecedented forces are involved the only difference between the two cases being that of quantity and quality. Whilst it is the provision of men, money and munitions on a scale previously undreamt of that necessitates hasty reconstructions and alterations in our system of political economy, it is the superior quality—the increased efficiency—of military weapons which is forcing upon our soldiers the necessity of revising, in a day, the methods which have been the growth of centuries.

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It is not the purpose of this article to go too deeply into military technicalities but to show, in as simple a manner as possible, the great change which has come over tactics and the causes which have contributed to this change. It has been said that weapons dictate tactics, and the truth of this statement now finds abundant proof, for it is the destructive power of modern missile weapons that has made entrenchment the outstanding feature of this war and has shown us the unparalleled spectacle of two vast armies, occupying fronts many hundreds of miles long, permanently encamped beneath the ground and each invisible to the other although separated, in many cases, by only a few hundred yards. The use of earth entrenchments has always been an essential part of military operations, and even under Marlborough much of the very earth which is now sheltering our soldiers from the deadly nickel-sheathed bullet of the Mauser, served to protect the men from the heavy leaden ball of the flint-lock but, hitherto, trenches have never been regarded as anything but a means of providing the temporary cover sought by a commander in order to economise the forces necessary for defence and correspondingly to increase those available for offensive action.

The use of entrenchments of a semi-permanent nature were foreshadowed in the Russo-Japanese and Balkan wars but nothing in the nature of the elaborate works that exist in France and Flanders has been seen in military history. Paradoxical as it may sound, their improvised strength offers more resistance to modern artillery than any of the elaborately designed defensive works constructed at leisure and with the aid of every modern resource. As I have said such entrenchments are the natural outcome of the employment of weapons so deadly and precise that pitched battles between forces visible to each other have become a practical impossibility and of projectiles so destructive against material that artificial protection becomes valueless and concealment the only safeguard.

With the domination of the long range guns has come a corresponding increase in the length of the battle front; this, in turn, means a greater distribution of the forces engaged and so great a reduction in their numbers at any given point that it can only be held by the utilization of every defensive means. Such a system

of warfare, which partakes more of the character of siege operations, leaves little scope for the rapid manœuvring by which in the past one general could place another at a disadvantage and, by bringing superior forces to bear at a point where the other was relatively weak, gain a decisive result before reinforcements could be brought to the scene.

For cavalry operations it offers no scope whatever and it is a tribute to the foresight of the Germans that they have long trained their cavalry in all the duties of foot soldiers and armed them with rifle and bayonet, an example which the other combatants have since been forced to follow. One way only does it offer to victory and that is by superiority in artillery, for it has been bitterly realized by all the combatants in turn that neither courage nor numbers will suffice to carry one of these entrenched positions unless its defences have first been destroyed and its defenders demoralized by sheer weight of metal.

At first sight it may seem strange that the long range of the modern weapon has indirectly brought about the revival of the two methods of warfare that are most intimately connected with the close range fighting of days long past—the hand grenade and the mine. This sequence, however, is perfectly reasonable; the machine gun, the magazine rifle and the shrapnel-firing gun cause armies to burrow below the earth because they can no longer exist above it; the mine and the hand grenade, in turn, play much the same part as the ferret that drives the unhappy rabbit once more into the open where the sportman's gun awaits it.

The hand grenade is an old acquaintance of the English soldier though not precisely in the form in which it is now used for the increased power of explosives has permitted it to be made in a lighter and more portable shape than that of the heavy iron balls, which were used in both sea and land warfare during the 17th century. The use of a fuse, which was lighted 'at a port-fire,' specially carried for the purpose, has been largely superseded by the percussion cap which detonates the grenade when it strikes its objective, although some of the extemporized devices of the ingenious "Tommy" revert to the older method of ignition. The important part that the grenade once played in warfare may be judged from the fact that every battalion of foot once

Revelations and Devices of the War

contained a company of men specially trained in the use of this weapon. One of our most famous regiments owes its title to dexterity in throwing the hand-grenade and has since justified its claim in a way which no historian could have foreseen.

The mine antedates the grenade by many years for its employment was not dependent upon explosives; prior to the invention of gunpowder it was a common practice for the besiegers of a fortress to approach it by subterranean passages and for the defenders to meet these attacks by a series of countermines and engage the attackers in underground conflict. The use of explosives in military mining, the first instance of which is said to have occurred during the siege of Naples in 1503, increased the scope of this form of warfare and, up to the date of the Crimean War, it was practised extensively in every campaign where attacks on fortresses were involved, perhaps most notably in the siege of Sebastopol. Since then there has been little opportunity for mining although the Japanese, after suffering immense losses in their attempts to carry the defences of Port Arthur, were obliged to resort to mining before achieving their eventual success. It has been stated by military experts that this siege would have been of shorter duration and far less costly in life had mining been employed at the commencement of the siege. In the present campaign mining offers the only alternative to artillery fire in the destruction of the enemies' defences as an essential preliminary to an infantry assault.

Thus we see that the readjustment of tactics to the new conditions of warfare finds employment for methods which have been deemed almost obsolete. A still more remarkable reversion to ancient methods is seen in the equipment of infantry soldiers with light steel skull-caps and breast-plates closely resembling those worn by men-at-arms over six centuries ago. Their use is likely to increase for, if this armour is not capable of resisting the modern rifle bullet, it greatly reduces the severity of wounds from shell splinters and shrapnel bullets.

If one were asked to describe the most notable revelations of the war as regards land operations, in their order of importance, one might enumerate them as:—

1. The paramount importance of high explosives.

2. The efficacy of the machine gun in defence.
3. The increased accuracy of artillery fire as the result of co-operation between this arm and the air service.
4. The almost complete exclusion of the once essential element of surprise from tactics as a result of aerial reconnaissance.
5. The complete vindication, despite predictions to the contrary by many eminent authorities, of the bayonet as an offensive weapon.
6. The restricted use of cavalry.

One might perhaps include such innovations as the use of poisonous gases and liquid fire but these weapons of "frightfulness" are too dependent on natural conditions and too uncertain in their results materially to affect tactics. Another fact which it may be claimed has been demonstrated in this conflict is the futility of infantry attacks in close formation against troops armed with machine guns and magazine rifles but since this is a lesson which had already been taken to heart by all the nations except Germany, who has been reluctant to adopt the extended order as being unsuited to the Teutonic temperament, it can hardly be claimed as a revelation of the present war except to the unfortunate 'cannon fodder' who, in the early stages of the campaign, hurled themselves, closely packed together, on the glacis of the Liège forts and subsequently on the English trenches in the first impetuous thrust for Calais. Some of these new conditions such as the superiority of high-explosive shell over shrapnel and the necessity for training and equipping cavalry to undertake the duties of infantry are dictated solely by the necessities of trench warfare and, whilst it is important to recognize them and provide for them, a reversion to the older and more mobile tactics might at any time give renewed importance to the earlier methods. Thus high explosive shells are demanded only because of their effect upon earthworks but whilst no cover is sufficiently strong wholly to resist the high explosive shell its burst is far too localized to make it of any value against troops in the open. On the other hand shrapnel of which, in anticipation of the trench warfare proving only temporary, all the armies engaged in the war had provided themselves with excessive quantities has little effect against troops under cover but,

MEDAL RIBBONS OF THE BRITISH ARMY.



Waterloo 1815



2nd India General Service
Medal 1852—1895



Canada, 1866—70



First Burmah 1824—26



South Africa, 1853—79.



Abyssinia 1868



Capture of Ghuznee, 1839



The Victoria Cross



Ashanti 1874—1894



First Cabul Second Cabul
Jellalabad Scinde and
Roberts Star



Afghanistan, 1878—80.



China Campaigns
1842—60 and 1900



Military Cross



Sutlej Campaign 1845—46



Crimea 1854—58



Cape of Good Hope
General Service



New Zealand 1846—65



Baltic 1854—55



Egypt, 1882—89



Punjab 1848—49



Indian Mutiny 1857—58



Khedive's Star 1882—89.

Revelations and Devices of the War

owing to its wide radius of dispersal, it is the projectile par excellence against unprotected infantry or cavalry and may again find frequent uses in the present war. The inaction of cavalry, too, may prove to be only temporary although we must never again expect to see whole squadrons meeting in the shock of hand to hand conflict. Their use will be mainly for reconnoitring or to form what the Germans describe as a "verschleierung" or cavalry screen composed of small bodies designed to drive back enemy patrols and to mask the movements of the army behind them. Such a screen was thrown out by the Germans in the first days of their invasion of Belgium.

The other changes which I have enumerated are due to no fortuitous circumstances but to the progression of science as applied to the art of warfare; they must be regarded as permanent and tactics must be modified accordingly. A belief expressed by German military writers is that the rifle is destined to give place to the machine gun and certainly, if entrenched positions are to be the rule, the theory is not unreasonable. The machine gun with its capacity for spurting a stream of bullets in any desired direction at the rate of 600 a minute is a formidable accessory to an earthwork protected by barbed wire entanglements and such obstacles, and when posted on the flanks of a trench can bring a converging fire on the foreground that converts it into a zone of death independently of the rifle fire of the defenders. It has been discovered that the machine gun is the great economiser of men in defensive action, for it can, with a minimum of exposure to the party working it, deliver a fire equal to, and thrice as concentrated as, that of thirty riflemen firing rapidly. In the past the machine gun has not been deemed so suitable as rifle fire for sustained action owing to the liability of its mechanism to interruption, but it may be assumed that with increased quantities this objection will be overcome by duplication. The present British machine gun can be taken wherever foot soldiers can go, but its weight is such that gun, tripod and ammunition have to be carried separately. Continual experiments are being made with a view to reducing weight and we may confidently expect that a "one man" machine gun or automatic rifle will be adopted; the German machine gun mounted on a form of sledge, may be said nearly to fulfil this ideal for it can easily be carried by one man.

The capacity of modern artillery, already vastly increased by mechanical range finders, is developed to a remarkable degree by the use of aircraft for observation purposes. Aeroplanes making continuous flights between the battery and its objective carry an observer whose duty it is to note the result of each shot and to communicate the information to the battery by means of a code of coloured lights whilst he, in turn, receives his instructions through the medium of white cloth signals laid on the ground close to the battery. The result of this system is that far less ammunition is expended in ranging and a surprising accuracy in hitting marks invisible to the gunner is achieved.

It may be said that prior to this war the greatest factor in tactics was the element of surprise. History proves that, with little regard to the relative strengths of the armies opposed, battles have been won mainly through a sudden concentration of force at a point where the opposing commander has been least prepared for it. A forced march of reinforcements or the transference of troops from another section of the line on the part of his opponents has often caused the best laid schemes of a general to "gang agley"; this element of surprise was for a time increased by the mobility of transport offered by the railroad. The advantages created by railways have been quickly nullified by the all-seeing eye of the airman. It has become extremely rare for any movement behind the lines of an army, except, perhaps, those which can be made within the limits of a single night, to go undetected and, as a consequence, we get opposing armies so well informed of each other's strength that a stalemate results. It may be judged that freedom of movement without observation will, in future, be the privilege of the army that is the stronger in aeroplanes and able, by their use, to check the activities of the enemies' aerial scouts. The one remaining inference that may be drawn from the war is, as I have said, that the bayonet will retain its utility as long as the rifle is employed in warfare.

The ascendancy of modern fire action over side-arms has long been a favourite theory of military writers but it has met with no support in this war. Until the Manchurian war the Germans attached small value to

Revelations and Devices of the War

the bayonet and in their old infantry regulations was to be found the statement, since falsified by events, that "in the majority of cases the firing (of artillery) will produce such an effect that the assaulting troops will find nothing more than a position feebly defended or even abandoned by the enemy." In Manchuria, however, striking proof of the importance of the bayonet was seen, for the losses by this arm amounted to eight per cent. or almost equal to those caused by artillery fire; in the present war, although no such figures are obtainable, it has been demonstrated again and again, particularly at Ypres where the Prussian Guards were defeated by the bayonet in spite of liberal support from the German artillery, that the "arme blanche" is indispensable if the full and final advantage is to be taken of an artillery assault. That this is so may be regarded as cause for congratulation; the English soldier has won wholesome respect for his capacity as a bayonet fighter from every enemy that has engaged him whilst, as a form of warfare calling for initiative, suppleness, and impetuous fury, bayonet fighting is better suited to the temperament of our French Allies than to that of the more stolid Teuton.

II.—MODERN DEVICES

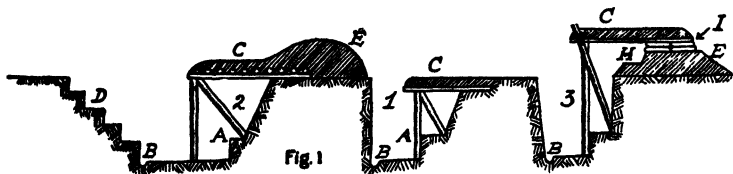
If we except the chemical knowledge that has given us the high explosive no branch of science plays so important a part in the warfare of to-day as that of engineering. It is the engineer who plans the labyrinth of trenches that shelter our soldiers, who builds bridges to facilitate an advance or shatters them to cover a retreat, who makes or wrecks railroads, who tunnels silently under the enemy's position or who links the distant headquarters with battery and trench.

It is the aim of these notes to explain, in simple words and diagrams, those phases which have been brought into especial prominence by the siege-like characteristics of the present operations, giving first place to that which deals with entrenchments.

Entrenchments

The advantages of entrenchments are two-fold; they enable fire to be delivered under conditions favourable to the defence and, assisted by obstacles, they limit the

enemy's freedom of attack. They are divided into two classes; fire trenches and cover trenches—the former being for the protection of the firing line, the others to provide cover for troops not actually engaged. Between these two lines and connecting them are covered-



Sectional view of an entrenched position.

AA. Seats. BB. Gutters. CC. Sheets of corrugated iron covered with earth or shingle. D. Steps. E. Earth parapets. H. Elbow rest. I. Sand bag loopholes. 1. Shelter for reserves. 2. Cover trench for firing line supports. 3. Fire trench.

in communication trenches; these may sometimes consist of walls, hedges or ditches running at direct angles to the trenches, strengthened by artificial cover, but are generally dug out in the same way as the trenches.

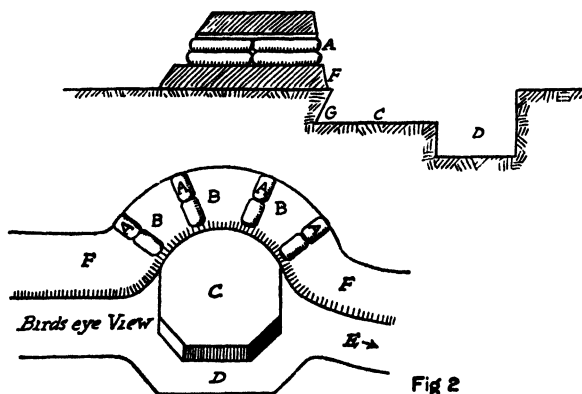


Fig 2

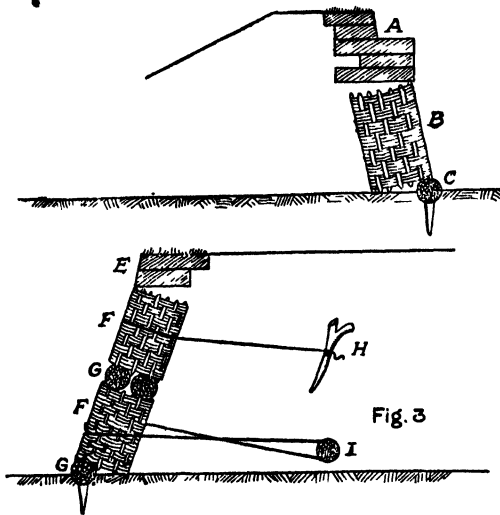
Emplacement or trench for machine gun.

AAAA. Sandbags as supports for head cover and to form loopholes. BBB. Loopholes. C. Gun platform. D. Trench. E. Communication trench to splinter proof shelter for gun detachment. F. Earth parapets. G. Undercutting for leg of gun tripod.

Overhead cover is generally provided as a protection against splinters and shrapnel bullets, and often consists of steel plates or sheets of corrugated iron covered with earth. An earth parapet, rarely less than four feet in thickness, is thrown up in front, earth

Revelations and Devices of the War

is also banked up in the rear of the trenches to prevent the back blast of bursting shells, and at the sides to prevent the trenches being swept by an enfilading fire. An elaborate entrenchment, such as is used in the present war, is shown on the previous page. Outside these trenches are obstacles such as fences of closely intertwined barbed wire or broad areas of low trip wires raised a few inches from the ground. At intervals the



The gabion in use.

A low parapet revetted with turf sods and one row of gabions. A. Turf sods forming elbow rest. B. Gabion. C. Fascine pegged to the ground.

A high parapet revetted with two rows of gabions and fascines, showing method of anchoring the gabions. E. Turf sods. F. Gabions. G. Fascines. H. Anchorage by means of wire and picket buried in parapet. I. Anchorage by means of fascine buried in parapet.

trenches are specially designed to afford cover to the machine guns which are directed upon every defile or gap between obstacles which the enemy is likely to occupy in attack and these defences or epaulments have to be specially planned to give a wide area of fire to the gun which works upon a pivot.

As earth will not stand at a steeper angle than 45 degrees the walls of the trenches must be shored up

or, in military terminology, "revetted" with all sorts of artificial material, such as gabions, hurdles, fascines, sandbags or sods of turf, and the preparation and maintenance of these devices involves a good deal of irksome and unaccustomed labour which "Tommy" performs manfully to an accompaniment of semi-humorous grumbles. The gabion is a cylindrical basket which, filled with earth, supports the earth parapets of a trench. Fascines are long bundles of brushwood 8 inches in diameter used with gabions as shown on previous page.

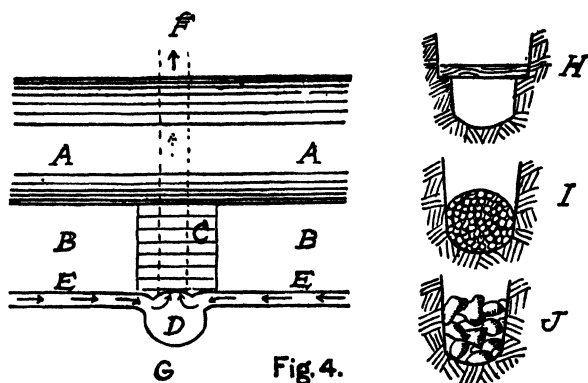
Clay will stand at a very much steeper angle than any other kind of soil and consequently requires much less revetting but its close consistency renders digging very laborious and the thirty cubic feet which one man is supposed to be able to dig in an hour are reduced to probably less than twenty, whilst the task is also rendered slower by the fact that the pickaxe, which quickly breaks up other forms of ground, is useless. It has been found that spade work in stiff clay is easier if the spades are kept wet. Another disadvantage about clay is, that the parapet of the fire trench intended to protect the men in the firing line from bullets, and generally 3 feet to 4 feet in thickness, has to be increased to at least 5 feet, as bullets have a greater penetrative power in clay than in any other form of soil except dry peat. The following table shows the relative maximum penetration of a pointed bullet in various forms of soil:—

Dry turf or peat	...	...	...	...	80 inches.
Clay	...	...	...	...	60 "
Soft wood with the grain	...	...	...	...	58 "
Earth (unrammed)	...	...	...	...	40 "
Loose sand	...	...	...	...	30 "
Sand. Between boards or in bags	...	...	...	...	18 "
Chalk	...	...	...	...	15 "
Shingle	...	...	...	...	6 "

It is a peculiarity of the modern pointed rifle bullet that it will pierce a greater amount of clay or earth which is closely rammed or confined than if it is left loose, whilst the contrary is the case with sand.

Revelations and Devices of the War

The drainage of trenches is a very important matter, and is generally commenced at the same time as the excavation of the trenches; the usual plan is to cut a gutter at the rear side of the floor of the trench and to slope the floor slightly towards it; from these gutters a duct is cut to the nearest ground which is below the level of the trench. When it is not possible to run drains to lower ground, pits into which the gutters run may be made at intervals along the trench and these are baled or pumped out when full. A "soak pit," as it is



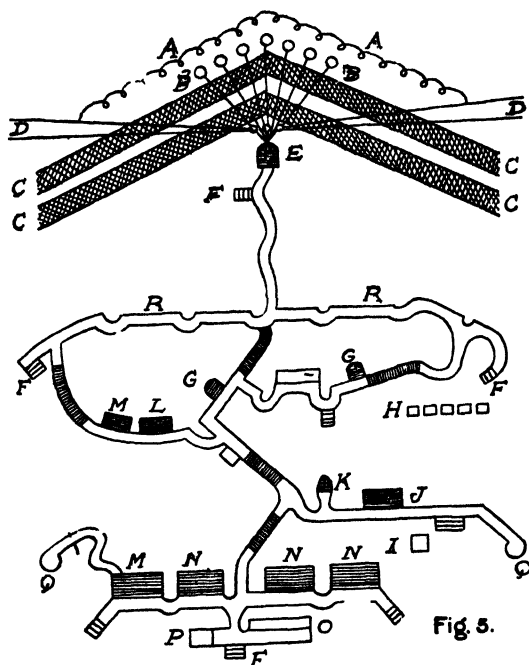
Drain for trenches. (Birds-eye view)

A. Earth parapet. B. Floor of trench. C. Flooring over drain.
D. Soak pit. E. Gutters at back of trenches. F. Low ground.
G. High ground.

The gutter is carried out under the floor of trench and under the parapet to the lower ground by means of drains as shown in H, I and J. H is an open drain roofed with board. I is a drain filled with fascines to prevent it becoming choked with earth and J is filled with large loosely-packed stones for the same purpose.

called, is generally lined with a gabion or long wooden stakes to prevent the sides of the pit falling in.

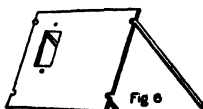
It is not everyone who realizes the host of auxiliary works which the construction of a fire trench involves. There must be covered communication trenches between the shelters for the supports and the firing line. There must also be kitchens, water supplies, medical dressing stations, observation posts and other conveniences all linked together by trenches. (See Fig 5, next page.)



Auxiliary works necessary for the occupation of a fire trench
 AA. Trip wires. BB. Flares. CC. Barbed wire entanglements. DD. Alarm wires connected to flares and cartridge alarms. E. Look out post. FF. Steps from trench to ground level. GG. Officers fire control post. HH. Latrines. I. Officers' latrine. J. Commanding Officer's shelter and telephone. K. Commanding Officer's post. L. Dressing station. M. Medical Officer's shelter. NNN. Shelters. O. Kitchen. P. Water tank. QQ. Machine gun emplacements. RR. Fire trench traversed at intervals to protect firing line from enfilading fire. The shaded portions represent covered-in trenches or shelters.

Sapping

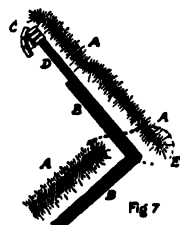
Sapping is usually executed by engineers, and is the only means of throwing up earthworks under hostile fire. It consists of constantly advancing trenches in a zig-zag direction and of throwing up earthworks on the head and exposed flanks of the trench so that the digging party is always under cover. The head is generally protected by a steel shield or parapet of sandbags about two feet high in order to protect the



Sap shield constructed of steel.
 Weight with standards, 44 lbs. 4 ozs. To be placed at head of sap to protect workers from enfilade fire.

workers from an enfilading fire.

Saps are designated as right or left-handed, according to the direction taken; if directed to the right of the enemy's position the sap is called right-handed and the sappers use their tools in the ordinary way; but, if the sap is to the left they must use their tools in a left-handed manner so as continually to keep under the cover of the parapet thrown up. Sapping has been rendered much more difficult by the introduction of machine guns, which are very effective against sap-heads and it is now rarely possible to work on a sap except under cover of night.



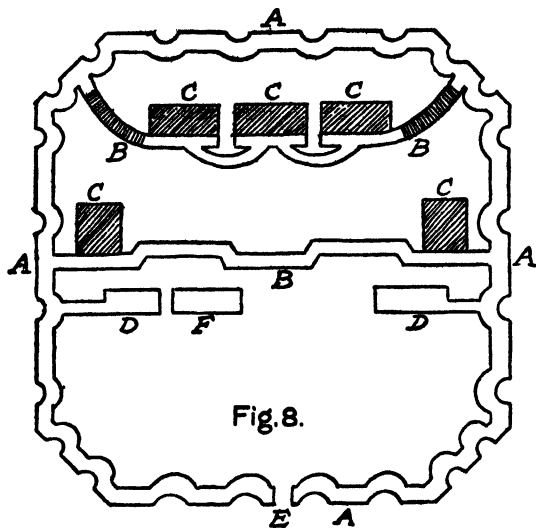
The construction of saps.
Showing how the direction is changed.
AAAA. Earth parapets.
BB. Trench. C. Sand bag protection for head of sap constantly moved outwards as the sap progresses. D. Unfinished portion of sap. E. Showing position of original sap-head before direction was changed.

Redoubts

Another form of earthwork used in connection with entrenchments is the redoubt which differs from a trench in that whilst the trench occupies a more or less straight line facing in one direction only, a redoubt is an entrenched position entirely enclosed on all sides and containing, within itself, all the elements of a fortress. Redoubts are not so well suited for the general defence of an extended position as groups of trenches, because they are less easily adapted to the ground, their garrisons are more confined, and they can more easily be made untenable by artillery fire; at the same time, when they occupy a commanding position they are of considerable use as points of support, and their enclosed defences have a considerable moral influence on the defenders, who know that their flanks are secure from attack. Redoubts are mainly used:—

1. To strengthen important points on the front line of a position.
2. As rallying points in the rear of the front line.
3. For the protection of isolated posts, especially on lines of communication.

A redoubt may be of any size, varying from one occupied by a company to that designed for defence by an entire battalion; the usual strength of a garrison is about three men to every two yards of parapet.



A common form of redoubt.

AAAA. Trenches traversed at intervals to protect firing line against an enfilading fire; earth parapets in front and in rear of trenches.
BB. Communication trenches. CCCC. Shelters (covered).
DD. Kitchens. E. Entrance in rear. F. Water tank.

Mines

When two lines of entrenchments have been so long established and so well prepared with devices for strengthening them that they have become, to a great extent, permanent fortresses the activities of trench warfare are largely devoted to subterranean attacks. There may be several reasons for such a form of warfare, it may be designed to lodge explosive charges under certain positions in the enemy's line which have proved impregnable to other attacks; it may be intended to form advance trenches by boring underground for some distance, and then, by exploding a mine, at the end of the tunnel, form a crater in the ground which can be occupied immediately by a working party, which, under the cover thus afforded, commences a new line of entrenchments. It may also be entirely defensive and

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intended to checkmate subterranean attacks which the enemy is known to be making.

Mining operations are always carried out under the direction of an officer of the Royal Engineers, who, when subterranean warfare is decided upon, defines his projects for attacks and makes out requisitions for the men, tools and material which he will require; such an officer is known by the title of "The Controller of Mines." His assistants are also officers of the Engineers who supervise the working parties and it is the important duty of one of these to keep exact plans showing the direction and scope of the various galleries. The men who form the working parties are, if possible, drawn from the Royal Engineers but sometimes it is necessary to supplement these by men borrowed from other branches of the service. Even in this case, however, there are duties which cannot be safely delegated to any but trained sappers, such as placing and detonating the charges and listening in the galleries for sounds of the enemies' working parties. Working in the galleries of a mine is not only dangerous but very irksome, and the reliefs rarely exceed six hours, even in the case of trained men. If the object is to destroy mines which the enemy is boring towards a position immense importance attaches to the act of listening. Work is discontinued several times a day so that experienced listeners, who have taken up positions at the ends of the various branches which run out from the sides of the galleries, may estimate the distance that still remains between themselves and the enemy's workings. There are instances on record where miners have accidentally broken through into the enemies' galleries and a grim hand to hand conflict in the darkness has ensued.

The question of illuminating mines is a difficult one in the presence of high explosives and it is frequently done by reflecting daylight along the galleries by means of sheets of tin, a device which has been found effective up to a distance of 180 feet. Whilst the mines are being loaded with explosives, illumination is often obtained by means of zinc plates covered with luminous paint.

Once a mine is loaded, however, candles and lanterns may be used with safety for the explosive is always "tamped" or covered in with earth; this is done, not for safety, but to ensure that the explosive does not expend its energy in the gallery when fired.

As military mining is carried on at a very short distance below the surface of the ground it is generally necessary to line the galleries with a series of wooden

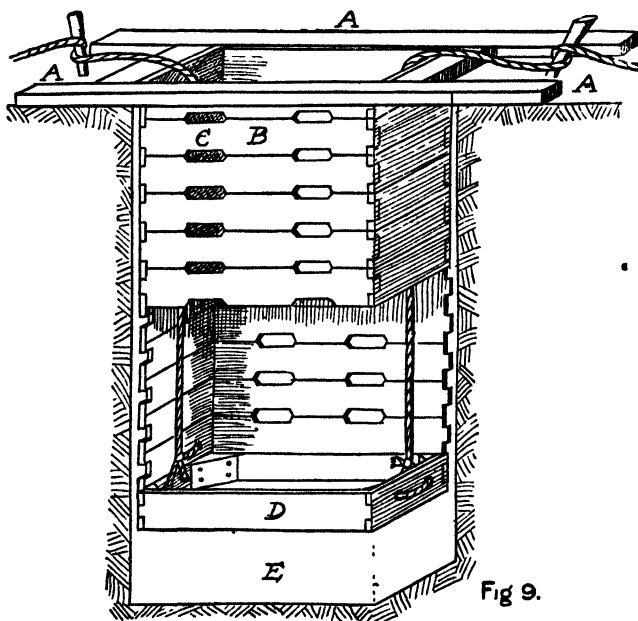


Fig 9.

How a shaft is sunk by means of wooden cases.

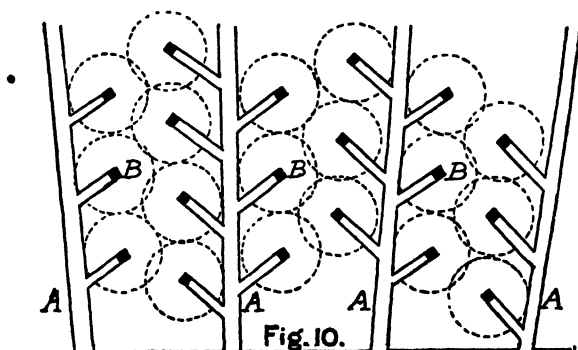
AAA. Top frame of shaft. B. Cases laid one on top of another from above as the excavation is deepened. C. Hand holes to enable sides to be removed, for the purpose of branching out in a gallery when shaft has reached correct depth; these holes also act as a ladder. D. Curb which is lowered by a rope as the shaft increases in depth. E. Excavation, 12 inches deep, into which the curb will be lowered, another case being added to the top.

frames; these are called cases and consist of four separate battens of wood, mortised at the end, as shown in my illustration.

In sinking a shaft the battens are fitted together to form cases which are laid one on top of another as the excavation progresses; when the depth at which it

is necessary to construct a gallery is reached, the battens on the side of the lower cases are removed, and the same system of casing is carried out horizontally instead of vertically. If the object is to ascertain the position of hostile galleries and to rupture them by means of explosion a series of advanced galleries known as "listeners" are thrown out; from these, at right angles, run a number of short branches arranged in such a way that any of the intervening ground through which the galleries of the enemy might run can be ruptured by means of explosives placed at the end of these branches.

In the illustration attached is shown a system of counter-mines in which the radius of rupture of the mines at the end of the various branches is indicated



System of counter mines.

A. Galleries. B. Branches with explosive mines at the end. The galleries are planned and the amount of explosive estimated in such a way that the radii of rupture shown by the dotted lines, are contiguous enabling any hostile gallery to be damaged by one or the other.

by circles and it will be seen from this that every portion of the ground is protected against the encroachment of the enemy's galleries.

When mines are fired the gases which result from the explosion fill the galleries and sometimes even penetrate through cracks or fissures in the earth to adjoining workings. These gases are especially dangerous, because the miner may be unaware of their presence until he falls insensible under their influence. In addition to

this danger the atmosphere in a gallery of any length becomes vitiated by the exhalations of the workmen and the fumes from candles.

For distances up to 50 feet the usual protection is in the form of a length of tubing attached to a respirator

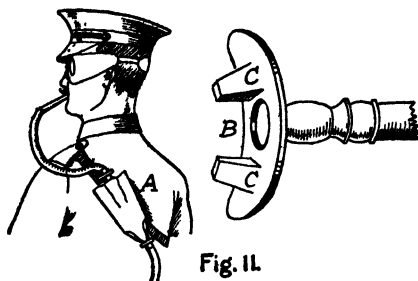


Fig. 11.

How sappers fight foul atmosphere.

A respirator which is used for men working within 75 feet from the mouth of the mine. The miner sucks the air through a gutta-perch tube which has an inlet at the mouth of the mine. A valve box (A) carried on the back permits the exhaled air to escape without allowing the surrounding foul air to enter. The mouthpiece consists of an oval rubber plate (B) which is placed between the teeth and the lips, two blocks of rubber (C) being provided for the teeth to grip.

but for distances greater than this, a copper helmet and air-tight dress similar to that of a diver, have been

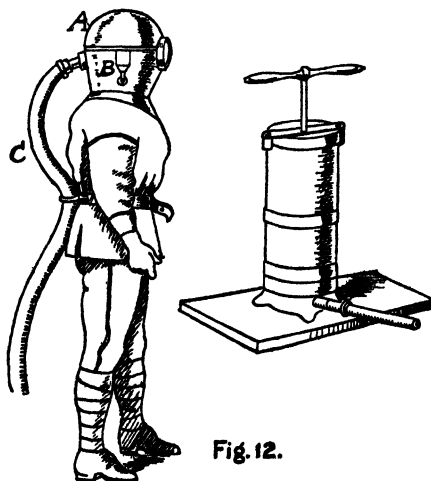


Fig. 12.

How sappers breathe in foul atmosphere.

- A. A copper helmet with a valve at the side (B) to permit exhaled air to escape.
- C. The tube by which the fresh air is driven by means of the hand pump shown in the smaller illustration.

adopted, the air being supplied by a hand pump at the foot of the shaft.

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It is sometimes possible to ventilate mines by boring a hole from the roof to the surface of the ground, but this is rarely the case in the more advanced galleries of a mine for, being within a short distance of the enemy's position, the situation of the mine may be betrayed either through the boring tool appearing above

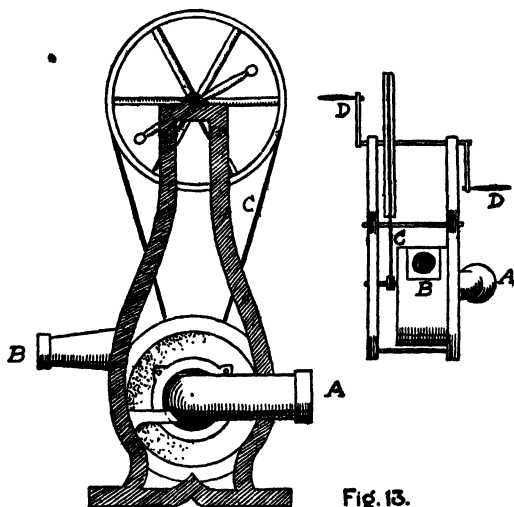


Fig. 13.

How mines are ventilated.

The above illustration shows a rotary fan of the type used to ventilate military mines. It is worked by two men, who drive the fan by means of a belt. The air enters at A, and is driven by the fan through the outlet B and along a hose which is attached to it, and which is carried through the galleries. The smaller illustration gives a side view of the fan showing the driving belt C and the handles D.

the surface of the ground or by the ventilation holes themselves. The only alternative is to ventilate the mines by blowers or fans worked by hand or electricity, and a rotary fan, which is in common use for this purpose, and which can be worked by two men, is illustrated.

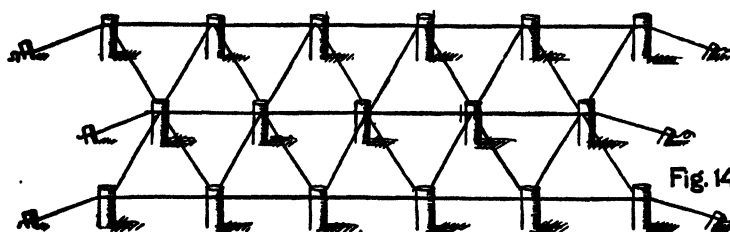
Obstacles

It must first of all be explained that the chief objects of erecting obstacles in front of entrenchments are to detain the enemy under the defenders' rifle fire at a close range, to break the formation of the attacks and to deflect them into areas most favourable for their

repulse by the defenders. With this object gaps are left at frequent intervals but woe betide the unfortunate commander who regards such a gap as providing an easy passage; better indeed it would be to lose half his men in forcing a passage through the obstacles, for such gaps are generally commanded by a converging fire from machine guns so that only by a miracle can a man reach the defenders' position by this perilous route.

The commonest of all obstacles is the wire entanglement of which there are many types. To quote only a few of these, there is a trip wire which is stretched in loose coils a few inches from the ground and which is used over a broad area. It is frequently concealed in grass or undergrowth and the difficulty of detecting this form of obstacle makes it very formidable. In some instances these wires are hung with bells or connected with alarm guns, and are often employed in front of the high wire entanglements with which photographs from the front have made us familiar.

There is the low wire entanglement which consists of wires stretched out between rows of stout pickets driven into the ground about 6 feet apart. This form of entanglement is most effective against cavalry, but does not serve as a great hindrance to infantry unless it is concealed amongst brushwood or long grass. Probably



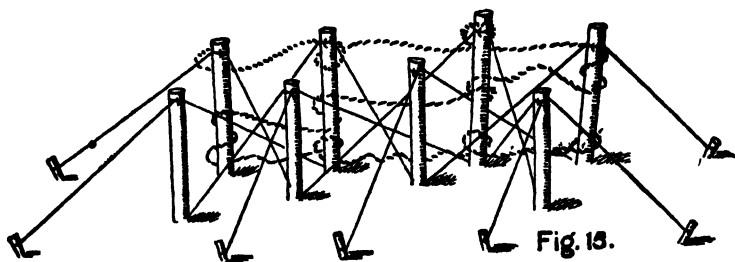
Low wire entanglement.

The stakes are about 6 feet apart, and the wire is about 1 foot above the ground. This form of obstacle is usually hidden in brushwood, long grass or under the surface of the water at a ford. It is very effective against cavalry.

its most effective employment is in the bed of a river ford. One mile of wire, which weighs about 125 pounds, will provide such an entanglement for an area of about 5,000 square feet, and one man can lay some ten square yards in an hour.

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The most common of all obstacles is the high barbed wire entanglement already mentioned; it consists of a number of stout stakes 5 feet to 8 feet in length, and from 4 inches to 5 inches in diameter, which are driven well into the ground and anchored by a number of wire stays. In and out the network so formed, barbed wire is loosely threaded between the posts to which it is fastened by short lengths of wire. One strand of barbed wire is always placed close to the ground and very firmly secured to the posts in order to prevent the attackers from crawling beneath it. As assaults on barbed wire entanglements are frequently carried out with the aid of hurdles or specially con-



A high barbed wire entanglement in course of construction.

The stakes are deeply driven into the ground, and are stayed by means of plain wires carried from the head of one post to the foot of the next. The outside posts are also stayed by pickets driven into the ground to prevent the entanglement being pulled away. Barbed wire is next threaded in loose horizontal lines and attached to the posts in the manner shown by the dotted line.

structed wooden gangways built of light battens nailed across spars which can be thrown upon the top of the entanglement, thus providing a passage for troops, the posts are placed at irregular intervals and vary in height so that no level foundation is provided for such a gangway.

Wire obstacles are not easily destroyed by artillery fire or hand grenades and, although they are often shelled as a preparation to assault, resort must generally be made to bridging by means of such gangways, by cutting through them with wire-nippers, by the deliberate application of explosives, or by using grapnels of steel by means of which the entanglement may be dragged away bodily by men hauling on ropes attached to the grapnels.

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The exposed position in which an enemy's wire entanglements and other obstacles are purposely sited renders any attempt to make a breach in them by daylight practically impossible whilst even night attacks are rendered extremely difficult by the use of automatic signals and lights. Many a man in the present war has lost his life through cutting a wire and failing to hold the wire on both sides of the cutter, with the consequence, that a sudden release of the tension has operated an automatic alarm.

A very common form of signal which comes into operation as soon as the wire is cut is the cartridge alarm as here illustrated. This consists of a blank cartridge which is passed through a hole in the centre of a piece of hard wood, and directly over the cap of the cartridge is fixed a spike kept erect by another piece of wood. Guided by two stout pickets, a length of railway line is supported over the spike by means of

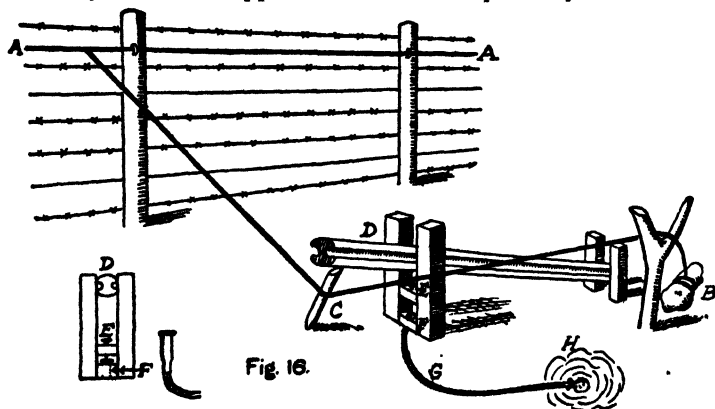


Fig. 16.

An alarm used in connection with wire entanglements.

A is a continuous plain wire running through staples. When it is severed at any point, the released tension causes the weight (B) to fall and to drag away the propstick (C) from under the piece of railway line (D) which it supports. This, in falling, drives the spike (E) on to the cap of a cartridge which is fixed in an upright position in a piece of wood at (F) and discharges it. The discharge ignites a piece of instantaneous fuse (G) which ignites a flare made of tow soaked in oil (H). The smaller diagram gives details of the rail, cartridge and spike and shows how the fuse is fixed in the cartridge case.

a propstick, and to this propstick is fixed a wire running from the fence and connected with a weight; when the wire of the fence is cut the weight falls and jerks the propstick from under the rail which falls and explodes the cap of the cartridge.

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The same device is also used to produce a flare, the cartridge in this case being empty; a piece of instantaneous fuse is pushed into the cartridge case well up to the cap, the mouth of the cartridge case being pinched to hold the fuse in position, and the other end of the fuse is bound with loose cordite and a little dry tow. This end is then inserted in straw, dry grass or shavings which have been saturated in oil, and when the rail strikes the cap the fuse is lighted, and this, in turn, ignites the tow. In many parts along the front primitive devices of this sort are rendered unnecessary by elaborate electric bell and lightning circuits whilst, on the other hand, some alarms, and by no means the least effective, consist of nothing more than tin cans containing stones tied to the wire and which give out a warning rattle when the wire is touched.

In addition to obstacles which are wholly artificial in character, such as those just described, natural materials are often ingeniously adapted to defensive purposes. Such a device is the abatis which is formed of stout

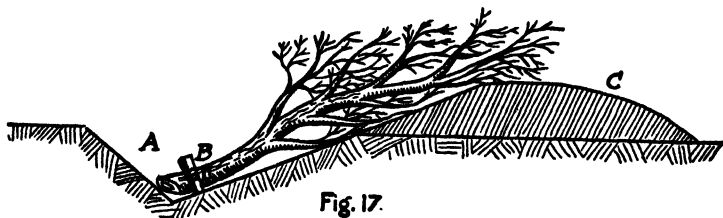


Fig. 17.

Abatis.

- A. Excavation for tree. B. Picket by which butt of tree is fastened to the ground.
C. Excavated earth.

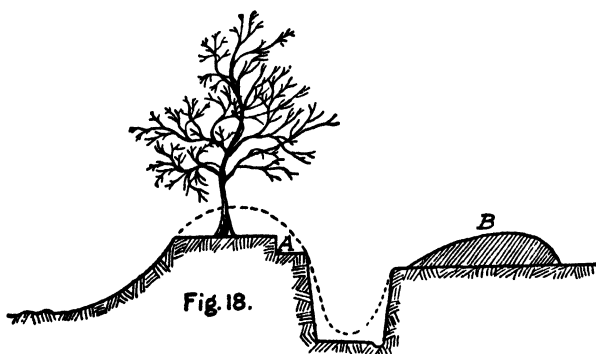
trunks of trees, twelve to fifteen feet long, laid side by side with their branches directed towards the enemy. To prevent their removal the trees are firmly picketed to the ground and, when time permits, the abatis is rendered more formidable by sharpening the larger branches into spear-like points and interlacing strands of barbed wire.

The abatis which is much used in the defence of woods, farms, villages, is a most effective obstacle and it has been found that the fire of field guns makes very little impression upon it.

In countries, such as Belgium and France, where practically all the ground is cultivated and intersected by hedges, walls, ditches, railings and other means of

enclosing and marking the boundaries of property, it is common for these existing barriers to be improved and strengthened as defences. That this is possible can be readily understood by anyone acquainted with the English countryside which closely reproduces the general features of the district over which most of the present fighting area extends; practically every field and meadow is surrounded, and every roadway flanked, by hedges in much the same way as in this country and these hedges can generally be turned to excellent account as entrenchments with comparatively little labour.

A hedge with a natural ditch in the rear is very simple to convert into a strong defensive work for the trench is already existent and the only thing necessary is to clear it of undergrowth, to extend it to the depth required, to level the bank on which the hedge grows, make the interior slope steeper and cut out a shelf on



Entrenching a hedge which has a ditch in the rear.

A hedge of this description is easily converted into a strong defensive line by deepening the ditch, squaring up the sides and flattening the top of the bank. The dotted lines show the original contours of the bank and ditch. A shows the elbow rest B is the excavated earth thrown to the rear.

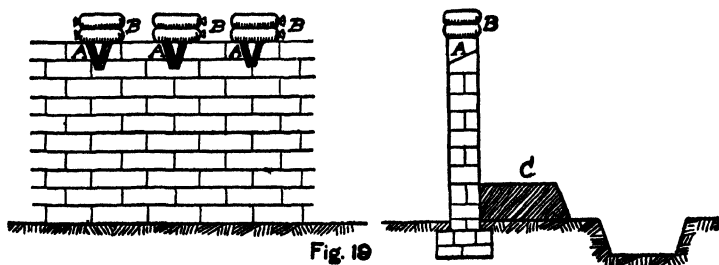
the inner side of the parapet on which the men can rest their elbows when firing. In this case, the excavated earth is thrown at the back of the trench in order that it may not be visible on the enemy's side of the hedge.

Hedges are also frequently employed as screens for field guns, and when these are situated at some distance to the rear it is extremely difficult for the opposing artillery to find the exact range. When utilizing hedges or walls for defensive purposes, it is necessary to level all others which run parallel to them in

front, or else they afford successive positions of shelter to the enemy in carrying out his attack. On the other hand, hedges which run at right angles to the front can usually be safely left, as they serve to separate the enemy's force and disconnect his movements.

Walls which have been loopholed or notched afford material aids to defence. Any fairly well built wall, in which the mortar joints are not too wide, is bullet proof but cannot be relied upon to give any protection against artillery fire. Shells fitted with percussion fuses will penetrate a brick wall before bursting, and their effect is rendered more dangerous by the splinters of brickwork. Therefore, when walls are to be used in defence they are prepared beforehand but, during artillery attacks, are not manned, the defenders taking up a position in neighbouring entrenchments or behind other effective cover; when, however, the enemy's artillery ceases fire in order to allow his infantry to advance, the defenders occupy the breastworks that are formed by the walls.

The method of preparing a wall for defence depends mainly on its height, thickness and structure, but in any case it is most important that the loopholes or notches through which the defenders' fire



Notched wall with head cover of sandbags.

A. Notches in wall. B. Sandbags. C. Earth parapet to enable men in firing line to reach loopholes which are 6 feet from ground.

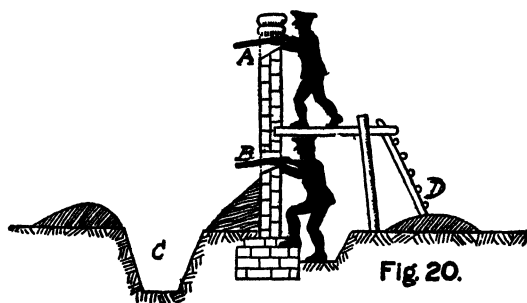
cannot be used from the other side; otherwise, if the defenders were temporarily driven from the wall, the enemy might make use of it to his own advantage.

Therefore, in preparing loopholes in a wall of any height, these are situated at least 6 feet from the ground and a staging or bank of earth is placed against the wall on the defenders' side in order to enable them to

reach the loopholes. If the wall is not sufficiently high to admit of this, and the loopholes have to be made 4 feet 6 inches from the ground, which is the usual height at which a man standing on level ground can best use his rifle, a ditch is dug in front of the wall to prevent the enemy reaching the loopholes.

Walls which are less than 4 feet 6 inches in height necessitate a trench being dug on the defenders' side, in order to allow the men to stand up to fire without exposing themselves, but this is sometimes avoided by increasing the height of the walls with sandbags placed on the top.

In very high walls, say from 9 feet to 10 feet, it is possible, by using notches in the top of the walls and



A high wall defended by two tiers of fire.

A is a notch in the top of the wall covered by a sandbag. B is a loophole 3 feet from the ground level. A trench about 1 foot 6 inches is dug from the lower row and a wooden staging erected for the top row of men. The ditch in front of the wall (C) prevents the lower loophole from being used from the other side, the distance between the bottom of the ditch and the loophole being 6 feet. D is a rough ladder.

loopholes lower down, to employ two tiers of fire as shown in the accompanying diagram.

Loopholing is a very tedious task, demanding hard work with crowbar and pick, and only a very practiced soldier can make one in less than half an hour in any wall which exceeds 12 inches in thickness. Notching, that is knocking out the top bricks of a wall at intervals and shaping these embrasures with a mason's chisel, is easier than loopholing.

The defence of a wall is rendered much stronger by the employment of machine guns on both flanks; these enable the ground in front of the wall to be

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swept by a cross fire, and it can be well imagined that when this is done the position can only be carried with immense loss to the attackers.

III.—EXPLOSIVES & THEIR USES IN THE FIELD

Since the beginning of the sixteenth century the dominant force in warfare has been the explosive, and the importance of its rôle has grown with every increase in its power or improvement in the methods of its employment. Gunpowder, the invention of which is traditionally ascribed to the Chinese, is the parent of all modern explosives although it is now very little used except in certain classes of demolition. The discovery of gunpowder, so far as Europe is concerned, is claimed alike by Germany and England and certainly if Roger Bacon discovered the explosive nature of a combination of saltpetre, charcoal and sulphur. It was Berthold Schwarts who, with a faculty for adaptation which is still a characteristic of the Teuton, put this mixture to its first practical use as a means of offence. It is an interesting reflection that his ingenuity may, so many centuries after, indirectly contribute to the chastening of his descendants.

Explosion may be best described as the result of the conversion, by combustion, of solid matter into gas which, on its formation, seeks to expand rapidly in every direction. The force of the explosion depends mainly on the quickness with which the conversion takes place and partly on the resistance of the surroundings.

The number of modern explosives is legion but those in use for military purposes are comparatively few. These may be divided into two broad classes: low explosives, in which, the chemical change from matter to gas is comparatively slow and results in a gradual exertion of force, as in the case of gunpowder. and high explosives in which the conversion into gas is instantaneous and results in an expansion so rapid as to produce a rending or shattering effect; explosives of this type are gun-cotton, nitro-glycerine and picric acid.

The propulsion of a projectile from a gun or rifle is brought about by the endeavour of the gas produced by the ignition or detonation of the charge, to expand within a limited space; meeting with more resistance from the barrel of the weapon than from the projectile it flings the latter forward with great force.

A high explosive, unless the rate of its combustion can be reduced as in the case of cordite, is not suitable as a gun charge because, instead of bringing to bear a gradual pressure upon the direction in which it meets with the least resistance, its gas is instantaneously developed without allowing time to overcome the inertia of the shell, and the gun bursts or the shell is shattered to pieces.

Even gunpowder, which until about thirty years ago was the only known propellant, proved too rapid in combustion for the long barrelled guns which were rendered necessary by the invention of rifling, the maximum pressure of the gas being developed long before the projectile reached the muzzle of the gun. To overcome this difficulty the powder was compressed into slabs or lumps with the result that the explosion proceeded more gradually from layer to layer and in variants of this form it was employed until replaced by cordite which is a composition of nitro-glycerine, gun-cotton and mineral jelly worked into a dough and forced through a die from which it emerges in the shape of a long, macaroni-like cord, thus deriving its name. In addition to possessing the advantage of being more or less smokeless cordite does not explode too rapidly owing to a process in its manufacture by which the original cotton structure of the gun-cotton is gelatinised. Cordite, or gun-cotton products similar in character, is in general use as the propulsive charge for shells and cartridges.

In the bursting charge of shells different characteristics are called for and here the more rapid and violent action of the high explosive is valuable. Picric acid, or to use the commercial title under which it is more familiarly known, lyddite is the explosive most commonly used for this purpose. It is a crystalline substance of a brilliant yellow colour and as its chemical description implies is intensely bitter to the taste. It has been largely used as a dye and for a long time its

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explosive possibilities were not realized. On ignition it will burn without explosion but when melted down and allowed to solidify, the method that is employed in filling the shell cases, it develops a tremendous explosive power.

Practically all modern explosives, including the foregoing, are produced by the action of nitric acid on organic substances.

In the case of gun-cotton, one of the most extensively used explosives, the substance impregnated is cellulose and in the cases of nitro-glycerine and lyddite, it is glycerine and carbolic acid respectively which are combined with the nitric acid. From nitro-glycerine is derived a group of explosives of varying power known under the generic description of dynamite.

Apart from use in the manufacture of shells cartridges and other forms of ammunition for which cordite and lyddite are chiefly used, explosives are carried in large quantities by the modern army. They are required for the mines which are exploded under an enemy's position, for destroying wire and other defences erected by the enemy, and for destroying railway tracks on the enemy's lines of communication. They are also employed for demolishing captured buildings and entrenchments which cannot easily be put into a state of defence by the victors, or which might again fall into the enemy's hands, and for blasting roadways through rocky ground.

Gun-cotton is carried in the field for demolition purposes in the form of slabs weighing 15 ozs.—each slab being packed in an hermetically sealed metallic case containing water. It is characteristic of gun-cotton that it will absorb about 30% of its weight of water, and, when wet, does not ignite or detonate easily though the explosive force is actually greater than when it is dry.

Gun-cotton is safer to use than any other form of high explosive for if a light is applied to it it will burn fiercely but will not explode unless the quantity is very large, and it will not detonate when struck by bullets. A charge of wet gun-cotton is fired by the explosion of a dry primer in close contact with it; this primer being exploded by a detonator containing fulminate of mercury which is a violent explosive and which will detonate on the direct application of flame or even

when heated, to about 360° Fahr. This detonator is fired by the agency of a length of fuse which can be lit at a safe distance from the site of the charge.

Of these fuses there are two kinds, one (A Fig. 1) known as safety fuse, consisting of flax, spun and twisted in the same manner as twine and having a column of fine gunpowder in the centre; it has an exterior coating of gutta-percha tape and varnish. The rate at which

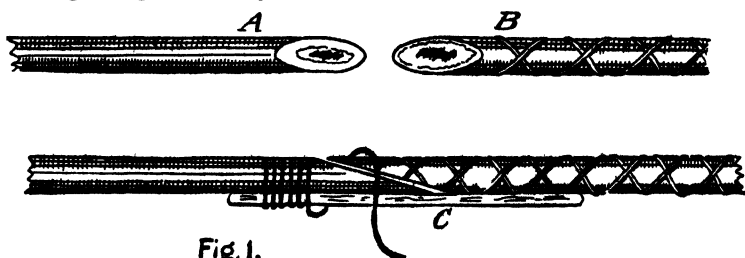


Fig. 1.

The two kinds of fuse which are employed in firing explosive charges.

such a fuse burns is, at the slowest, one yard in 75 seconds and, at the quickest, one yard in 45 seconds. Being waterproof it will burn under water at a depth of 90 or more feet even after immersion for a day.

The second kind of fuse (B Fig. 1) is one which must be treated with a wholesome respect, for it burns at the astonishing rate of 30 yards per second. This is known as instantaneous fuse and, in order that it may always be distinguishable from the slow-burning safety fuse, it is coloured a bright orange and has a snaky cross-thread on the outside which may immediately be detected by touch in the darkness. Instantaneous fuse is made by enclosing a strand of quick-match in flax and covering it with several layers of waterproof tape; it is carried in sealed tins containing 100 yards. Both fuses will burn under water. They are generally used together, the method of joining them being to cut the ends on a slant and splice them by means of a stick and twine (C Fig. 1).

In exploding a gun-cotton charge the slabs of gun-cotton are closely fixed against the object to be destroyed. The disposal of the slabs of gun-cotton varies according to the object that is to be effected; thus, in the case of a mine or a charge for blowing in a gate they are

arranged in a compact mass, but if for demolishing a stockade or wall they are arranged in a continuous line.

The fuse for firing a gun-cotton charge of any description is cut to the required length and may consist of safety fuse alone or a combination of safety and instantaneous fuses joined in such a way that one ignites the other; one end of this fuse is cut straight across, is inserted into the detonator, from which the paper

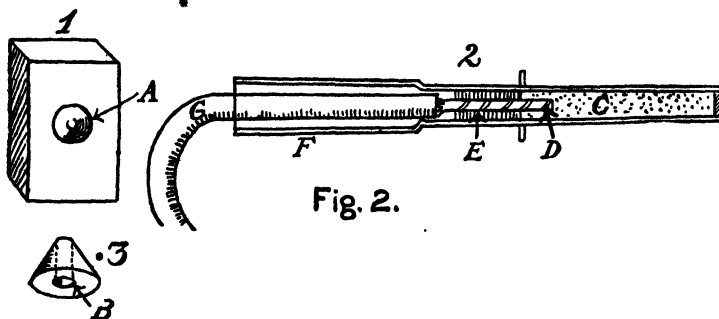


Fig. 2.

How gun-cotton charges are exploded.

1 shows a slab of gun-cotton as it is supplied from army stores. Its weight is 150 lbs., and it is carried wet in a sealed metal box. It is provided with a hole (A) into which fits a cone-shaped section of dry gun-cotton known as the primer (3). The primer is perforated (B) to receive the detonator (2) which consists of a brass case containing fulminate of mercury (C) and a length of quick-match (D) passing through a section of wood (E) and communicating with an empty chamber (F) in which the fuse (G) is pushed. When the fuse is lit the quick-match explodes the fulminate, which in turn detonates the primer and so explodes the gun-cotton slab.

cap has been torn, and is pushed down until it rests on the quick-match; the tube of the detonator is then slightly bent or pressed in to prevent the fuse from falling out.

The primer, which consists of a small cone of dry gun-cotton with a perforation for the detonator, is inserted in the hole provided for that purpose in the slab of gun-cotton, and the small end of the detonator is then gently inserted into the primer. The other end of the fuse, which has already been cut on a slant to expose as much of the powder train as possible, now only requires to be lighted to cause the explosion.

Gunpowder is less useful for hasty demolitions owing to its slow rate of burning and it always requires tamping or covering with earth in order to confine its gases at the beginning of the explosion and thus to

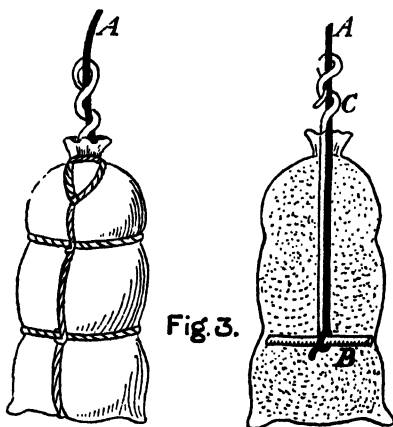


Fig. 3.

A gunpowder charge.

The powder is put into a sandbag, the fuse (A) being held in place by knotting it round a stick (B). Piece of wire or twig (C) is also fixed to the stick and twisted round the fuse in order to support it at the mouth of the sandbag. The bag is tied up and is exploded by lighting the fuse.

leaves the mouth of the bag. The rest of the powder is then poured into the bag and the mouth secured with spun yarn. A service sandbag holds about 40 lbs. of gunpowder which is about as much as a man can conveniently carry and when the amount of a charge is greater than this it is generally divided amongst several bags for this reason and also because there is less danger of the whole charge becoming ignited accidentally.

Another explosive that is extensively employed by the Royal Engineers for demolitions and blasting is dynamite. This explosive is supplied from the military stores in two forms, one being known technically as Dynamite No. 1, and the other as blasting gelatine. Although both are derived from nitro-glycerine the properties of these two explosives differ considerably, for instance, Dynamite No. 1 is useless in water which quickly disintegrates it, separating the nitro-glycerine from its base whilst, on the other hand, blasting gelatine can be used under water in the same way as gun-cotton and is, in fact, generally stored in water.

Another curious difference is that, whilst both of these explosives will freeze at a temperature of 40 degrees, dynamite in a frozen state is much less sensitive to ex-

develop their forces more fully. A charge of gunpowder is generally prepared by being placed in a tarred sandbag or, failing that, in one sandbag placed within another. In filling, about half the powder is poured into the bag and then the safety fuse, knotted round a stick to prevent it being pulled out, is inserted, a piece of stout wire or a thin rod of brushwood being also attached to the stick to support the fuse after it

plosion by a blow or detonation than when in its normal condition; even a rifle bullet fired into it will not explode it but blasting gelatine, when frozen, becomes highly sensitive and is very liable to explode through receiving a blow or even upon being subjected to friction.

Dynamite No. 1 is the ordinary dynamite of commerce, and is composed of liquid nitro-glycerine which has been absorbed by an inert non-combustible base, the latter being a porous earth consisting mainly of silica in the proportion of 25 parts to 75 parts of the nitro-glycerine. In colour it varies between a buff and a reddish brown, is of a plastic consistency and is supplied in small cartridges wrapped in parchment.

Blasting gelatine is the most powerful of all the many nitro-glycerine explosives, and consists of a mixture of nitro-glycerine and nitro-cotton, the percentage of the former being as high as 95 parts. It takes the form of a jelly, rather resembling new honey in colour and varies in consistency from a tough leathery material to a soft, gelatinous substance. It is about 50% more powerful than dynamite.

The liability of dynamite to freeze is one of its drawbacks, for it is impossible to get complete detonation unless it is thawed. It can be readily imagined that this thawing process is one attended with very considerable risks for if dynamite or any of the other nitro-glycerine preparations are warmed up to a temperature approaching their explosive point they become intensely sensitive to the least shock or blow and, when once that point is reached they do not merely ignite but explode with terrific violence.

As it is highly dangerous to warm dynamite on, or near, stoves or fireplaces or even in the direct rays of the sun, the usual method adopted by sappers is to put it in an empty water-tight tin can and to place this in a vessel containing hot water. A special warming pan which cannot be put on the fire without destroying it, is supplied from the Army Stores for this purpose, and is illustrated on the next page.

To the lay mind the warming of the dynamite sounds even more hazardous than smoking a cigarette in a powder magazine but our Engineers think little of its dangers and, strange as it may seem, it is sometimes necessary for officers sternly to warn their assistants against em-

playing far more dangerous methods in order to save time and trouble. Both dynamite and blasting gelatine are very useful in railway demolitions, and both are prepared for explosion in the same way.

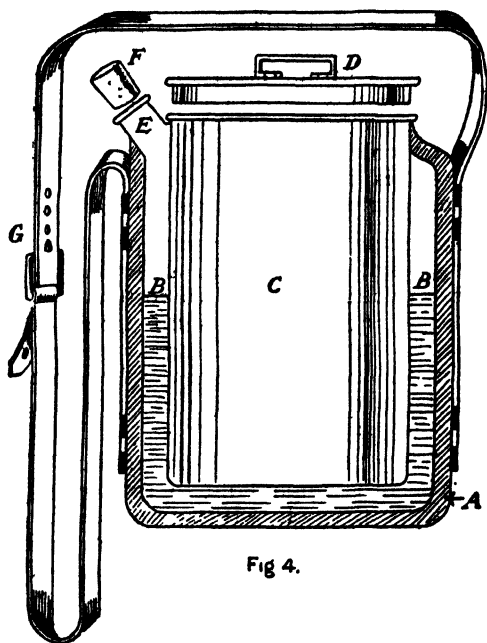


Fig 4.

Service warming pan for dynamite as used by the Royal Engineers

Dynamite freezes at 40, and when this is the case, must be thawed before use. The above shows the device by which this is done. The dynamite is placed in the inner chamber (C) and warm water is poured into the outer chamber (B). The outer casing (A) is filled with hair packing. D is the lid, E the channel for the hot water, F the cork, and G the webbing strap by which the pan is carried.

The method of detonating a dynamite charge is somewhat similar to that by which gun-cotton is exploded, but instead of the service detonator containing fulminate of mercury and a quick-match, the ordinary "commercial cap" is generally used. This is made of copper, contains a smaller percentage of fulminate and no quick-match but, like the service detonator, it has an empty chamber at one end into which the fuse is inserted.

Revelations and Devices of the War

In military mining and blasting, in which dynamite is largely used, the cartridges are inserted, one by one, in a specially prepared borehole, pushed one against another with a wooden rammer, and on top of this charge the cartridge, to which the fuse has been attached, is placed. The hole is then filled with sand or earth in order to confine the gases and so increase the power of the explosion. As in the case of other explosives the fuse may be the slow burning safety fuse which I have previously described, or a combination of safety and instantaneous fuse.

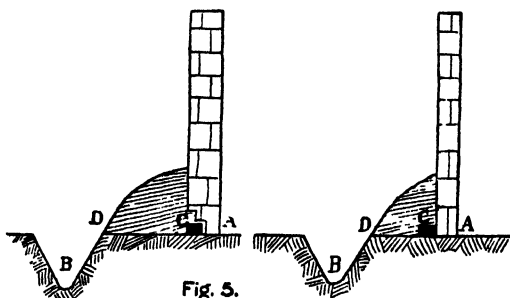
In the case of deliberate demolitions, that is to say those which are made with ample time for preparation, such as the destruction of positions which have permanently passed out of the enemy's hands to our own, gunpowder is more commonly used not only because it is more economical but because its lifting properties provide a more permanent form of destruction. It disintegrates a structure where gun-cotton will only cut through it. To obtain the maximum power of gunpowder, however, it is necessary to "tamp" or enclose every charge with earth, a somewhat lengthy process which is not necessary in the case of gun-cotton.

The defence of villages, which plays such an important part in the present war, entails the demolition of a considerable number of buildings for it is usual to select one or more occupying a central position in the village to be fortified as "keeps" and to level to the ground all adjoining buildings which might afford cover to the enemy.

In such cases one of the commonest methods is to lay a series of charges all along the outside of the wall, a trench is then dug eight or ten feet from the wall and the excavated earth thrown over the charges in order to increase their explosive power in the direction of the house.

When time permits a better result is obtained by sinking the charges a little way into the wall, perhaps about one-third of its thickness, as this lessens the line of resistance and diminishes the quantity of earth required for tamping and the amount of explosive to be used.

Buildings are frequently demolished by the more economical process of boring a number of holes in the walls and filling them with charges of gunpowder, which are exploded simultaneously. These holes are always driven downwards at an angle of 45 degrees, with a boring bar or "jumper," and when the centre of the wall has been



How walls of a house are demolished.

When the wall is thick a channel is cut into its foot in which charges of gunpowder are laid. A trench is then dug and the excavated earth is used to cover up the charges so that the wall presents the line of least resistance. In the case of thin walls it is not necessary to cut a chamber in the wall. If gun-cotton is used instead of gunpowder, "tamping" with earth in the manner shown is not necessary. CA represents the line of least resistance, and CD the thickness of the earth. C is the charge, and B the trench from which the earth is obtained.

reached the holes are lengthened sufficiently to contain one half of the charge so as to make the centre of the charge coincide with the centre of the wall. After the fuse has been attached, the holes are refilled with earth.

The destruction of modern houses of the type commonly designated as "jerry-built" is often achieved by placing a charge in the centre of each room and, after shutting all doors and windows, firing the charges simultaneously. The amount of explosive depends entirely on the size of the rooms and the thickness of the walls but it has been estimated that six to twelve pounds of gun-cotton will suffice to demolish a four roomed cottage.

The most important form of demolition that is carried out in warfare is that of railways, and this is only done upon definite instructions from the highest authority. Replacing railway works and equipment is a long and costly process and, unless there is a very remote prospect of re-occupying the territory through

BADGES OF RANK.

CUFFS.



Colonel.



Lieut.-Colonel.



Major.



Captain.

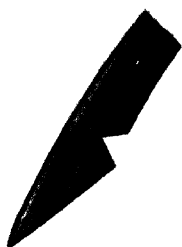


Lieutenant.

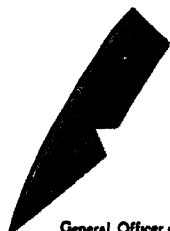


2nd Lieutenant.

GORGET PATCHES.



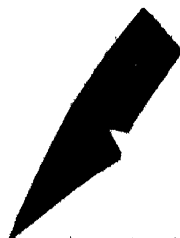
General Officer.



General Officer of
Headquarter Staff



Staff Officer.



Sergeant-General.

SLEEVE BADGES.



Staff Sergeant-Major,
Army Service Corps.



Master Gunner,
1st and 2nd Class.



Sergeant-Major.



Bandmaster



Master Gunner, 3rd Class.

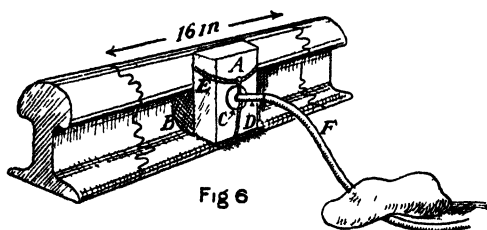


Sergeant-Corporal.

Revelations and Devices of the War

which the railway runs, complete demolitions are apt to recoil upon the heads of the army responsible for them. Railway demolitions may be divided into three classes:—

- (A) Temporary and partial destruction in order to prevent the enemy making use of the railway for a specified time.
- (B) Entire destruction of the railway track and rolling stock.
- (C) Hasty demolition designed to effect the maximum damage and disorganization in the time available.



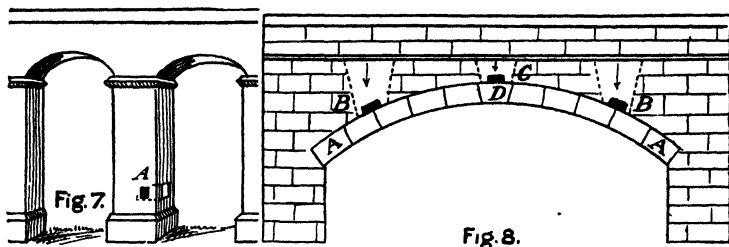
The destruction of a railway line by means of gun-cotton.

A slab of gun-cotton (A) weighing 150 lbs. is attached to the line by a piece of clay (B). Into this slab is inserted a primer of dry gun-cotton (C) which is perforated to take the detonator (D). The detonator is kept in position by means of a piece of string (E). One end of the fuse (F) is placed in the chamber of the detonator, a stone is placed over the fuse and the other end is lit. The resulting explosion cuts a piece about 16 inches long out of the line.

There are innumerable methods of temporarily denying the use of a railway to the enemy without the use of explosives; it is demolitions under the heading of B, with which we are chiefly concerned in these notes. The greatest damage, and that which is the most difficult to repair, is probably caused by the destruction of bridges over which the railways run.

One of the chief difficulties in the destruction of bridges is that the time for preparation is usually limited and may sometimes be gauged in hours, whilst the preliminary operations of preparing and placing the charges must be carried out without interrupting the traffic which, in the case of a retreat, is frequently very great and is often continued almost up to the moment that the enemy arrives. Nevertheless the demolition must be complete, because there is rarely time to remedy a partial failure which may have the effect of leaving the bridge in such a condition that the enemy can quickly repair it.

In the case of a stone bridge with high piers a common method is to place charges as closely as possible to the bases of the piers as the fall of one pier will bring down two arches. A (Fig. 7) shows the position of the charge in a chamber driven into the piers. When the piers are short and thick this is an uncertain method as was proved when the Austrians attempted



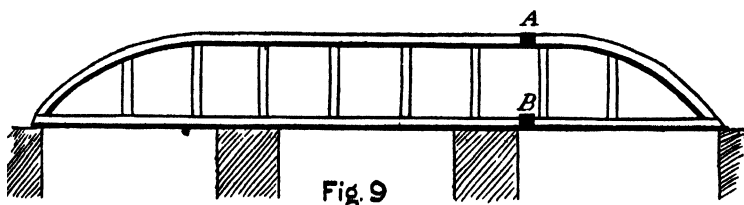
The destruction of a stone bridge by explosives.

to destroy the bridge at Magenta in 1859. In the case of a substantially constructed stone bridge it is necessary to attack the arches instead of the piers and this is effected by digging through the roadway to the arch-ring (A Fig. 8), and placing charges at each haunch of the arch (B Fig. 8), and at the crown (C Fig. 8), as this ensures a much larger gap being made than if one charge were placed at the crown. Partial destruction can be produced by placing a strong charge over the keystone (D Fig. 8).

In most cases railway bridges are built of steel girders, and consequently the process of demolition is somewhat different from that employed in the case of stone bridges just described. Generally speaking a girder bridge is more vulnerable than a masonry structure and its demolition can be brought about with a much smaller expenditure of explosives, for the following reason.

If the reader will examine the next girder bridge he has occasion to cross, he will notice that the whole construction depends for support mainly on two or more main girders which cross the span and carry the cross girders and roadway: these girders in turn depend for their strength on a top and bottom flange or boom connected by a web, and it is only necessary to cut these booms to bring the whole structure down.

The point at which the explosive is placed varies, according to the length of the bridge and the numbers of piers. In the case of a bridge which consists of a continuous girder across several spans, such as I illustrate, the method that produces the best results is to



The demolition of a continuous girder bridge.

cut the shore spans near the first pier (A and B Fig. 9), and, if the spans are fairly wide, sufficient damage is caused by cutting this one span only.

Sometimes, however, girders are not continuous the bridge being built up of several lengths stretching from pier to pier and, when this is the case, it is necessary to destroy at least one span, preferably the longest, completely. To do this the girder is cut near one of the piers if its booms are of uniform thickness throughout, but if, as is the case with practically all large bridges, the booms are not of uniform thickness, but are built up of a number of plates increasing in number towards the centre, the charge is placed just before the first thickening plate.

Some steel bridges are constructed in such a way that they depend for their strength chiefly upon a lower tension boom, and, in this case, the attention of the engineers is directed more particularly upon the lower boom. Owing to the violent cutting effect with which gun-cotton explodes, it offers the most effective and economical means of destroying iron and steel bridges, but the methods of preparing and fixing the charges vary considerably according to the form of girder that is attacked. It is impossible to describe all these methods within the limits of an article.

The Economic Outlook for Germany

BY J. ELLIS BARKER

Author of "Modern Germany," etc.



GERMANY'S economic future depends perhaps not so much on the action of Germany's business men as upon that of her generals and soldiers. It will be determined very largely by the issue of the war.

Germany, her Allies and her Opponents are at present affected by the war in a very similar way. All the Great Powers of Europe have lost in the war large numbers of able-bodied men. All have spent colossal sums of money. The national debts have increased prodigiously all round, and arrangements must be made for paying interest on them and for gradually paying them off. In so far, all Europe is affected alike. However, the conclusion of the war may make a most important difference to some of the nations. The victors will not only re-arrange the map of Europe according to their political and strategical convenience, but they will endeavour to secure for themselves far-reaching economic advantages as well. They will, in the first place, strive to obtain from the defeated nations as large a monetary indemnity as can be got. In the second place, they will endeavour to secure for themselves certain economic advantages of a permanent kind.

If the Central Empires were victorious, they would endeavour to cripple France, Russia, Italy and the British Empire, not only politically and militarily, but economically. They would retain in some form or other not only Belgium, but also Eastern France with her coal and iron mines, and her important industrial centres. They would retain Russian Poland in the East, and would thus acquire the Lancashire and Yorkshire of the

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North. Austria would undoubtedly recover Venetia and Lombardy, territories which, owing to their great agricultural and industrial development, constitute the wealth of Italy. Thus, Germany and Austria combined would industrially rule the Continent. Their economic power would be far greater than that of England and the United States combined. However, the Central Empires would not only take all the most valuable districts of their opponents which happen to lie close to their borders, but they would, as Germany did in 1871, force upon the defeated nations commercial treaties which would be highly favourable to themselves. The two victorious States would thus not only extort from their enemies most colossal indemnities, but would endeavour to make them subject economically for all time.

If the war should result in a victory of the Entente Powers they will naturally demand territorial and financial compensation, and they would re-construct the map of Europe with a view to making a war of revenge on the part of the defeated nations unlikely. The statesmen of the Entente Powers have announced their intention of recasting the map of Europe in accordance with the principle of nationality. They desire that self-government should be given to the races oppressed by the two Central States and by Turkey. If they should be victorious, it is to be expected that Belgium will be strengthened at Germany's cost by an extension of territory, that France will recover Alsace Lorraine, and perhaps the Rhine frontier, that the Italian, Serbian and Roumanian districts of Austria-Hungary will be joined to Italy, Serbia and Roumania, and that the Polish districts of the Dual Monarchy and of Germany will go to Poland. In addition, the two Empires would undoubtedly have to pay a very large monetary indemnity. If such a reconstruction of the map of Europe should take place Germany would suffer very severely even if her opponents should intend to treat her with the greatest consideration possible. The most valuable districts of Germany lie on or near her borders. The wealth of the European nations is based principally on their manufacturing industries. Germany's greatest manufacturing centres lie in the East and in the West, in Southern Silesia, on the one hand, and in the Rhenish Province and Westphalia on the other.

This is an age of coal. King Coal reigns supreme in the industrial world. A glance at the geological map of Germany shows that her principal coal-fields lie close to the Rhine and close to the Russian frontier. In the West she has large coal-fields around Dortmund and Essen, and around Saarbrücken, close to Metz. Her greatest Eastern coal-field, the largest on the Continent of Europe, lies in the South-East of Silesia around Beuthen, Königshütte, and Zaborze. Southern Silesia with its large coal-fields is almost exclusively inhabited by Poles and should therefore fall to Poland.

The bulk of the German iron ore comes from the mines in the West. Particularly important, are the iron mines around Metz. A victorious France would naturally desire to increase its totally insufficient mineral resources at Germany's cost. She lacks iron and especially coal. She would scarcely allow Germany to retain the iron mines of Lorraine and the coal-mines of Saarbrücken.

Russia, likewise, lacks coal. The coal beds of Southern Silesia would be extremely useful to her for developing her manufacturing industries in the West.

The manufacturing industries are apt to settle in those districts in which they can be carried on with the greatest ease and at the greatest advantage. As coal and iron are heavy, and as transport is expensive, manufacturing industries naturally spring up in those districts where coal and iron can be most cheaply obtained and where transport is relatively easy and inexpensive. It is, therefore, only natural that thousands of factories have been founded around the Silesian coal-fields where the system of the Vistula, the Oder, the Elbe, and the Danube provide cheap transport in every direction, and on the Rhine and its tributaries.

The principal industry of Rhenish Prussia and Westphalia is the gigantic iron industry. The iron ore used is obtained partly from German districts close to the French frontier and from Luxemburg, partly from France—the German iron masters have bought large iron mines in France—partly from Sweden and Spain. If Germany should be defeated in the present war she would undoubtedly lose to France the extremely important iron and coal beds near the French frontier, and she might no longer be able to obtain the vast quantities of iron ore which she has drawn hitherto from

The Economic Outlook for Germany

Eastern France and from Luxemburg. Her coal production would be very greatly diminished. Her enormous iron industry, which occupies in Germany a place similar to that held by the cotton industry in England, would be seriously damaged and all the other industries which depend for their prosperity on coal and iron would suffer.

The victors would undoubtedly demand from Germany a monetary indemnity of a very large amount, an indemnity which could be paid only gradually. Thus, Germany would for many years have to bear a burden of taxation far heavier than that of her competitors. In other words a defeat would greatly diminish Germany's wealth-creating resources on the one hand, and would greatly increase her financial burden on the other.

History teaches us that a great national defeat is frequently followed by a change in the form of government. A German defeat might lead to a two-fold revolution. It might lead, in the first place, to a diminution of the power exercised at present by the Emperor and his aristocracy, his bureaucracy, and his army. It might lead, in the second place, to the break-up of the German Empire.

An absolute monarchy is easily borne as long as it is successful. It appears intolerable to the people when it has brought about their ruin. The defeat of 1814 was fatal to Napoleon I., and that of 1870 destroyed the monarchy in France. Germany's defeat might lead either to a severe limitation of the monarchical power, or to the establishment of a republic. The former would seem the more likely event. Such a change in the constitution might be heralded by great internal commotions and possibly by a civil war, which would weaken Germany both politically and economically.

A German defeat would most likely lead to the dissolution of the Empire. The Southern States, which are mostly Roman Catholic, might be rejoined to Austria-Hungary. Vienna might once more become supreme in Munich, Nuremberg, Stuttgart, Karlsruhe, and Dresden. If Austria, to escape the worst disaster, should ask for a separate peace she might be offered the South of Germany to compensate her for the losses which she would be bound to suffer in the East and South. Prusso-Germany and Austria-Hungary might once more be made to balance one another. They might once more become

competitors and rivals as they were during two hundred years. The loss of the South German States to Austria would obviously weaken Germany, both financially and economically, still further.

The present war may end either in a German victory or in a German defeat, or it may remain undecided and be ended owing to the exhaustion of all the combatants. It seems unthinkable that Germany can win the war. The forces arrayed against her are too great. The present war is a war of exhaustion, and those nations ought to win which possess the greatest staying power, and the greatest human and material resources. It seems, therefore, likely that Germany will lose. At the same time, it will perhaps be wise to consider for a moment the consequences of an undecided war.

If the war should end owing to the exhaustion of all the combatants, Europe would presumably return to the *status quo ante bellum*. The frontiers of Europe would remain unchanged. All nations would be weighed down by enormous debts. Europe would remain an armed camp. The fear of war would be greater than ever before. The tension among nations would be more acute. All States would endeavour to prepare for a renewal of the struggle with redoubled energy. All Europe would thus be ruined by the war and by its evil consequences.

If the war should end in a draw, if all the nations were approximately equally overburdened by debts, Germany would probably recover far more rapidly than her opponents because she possesses a most marvellous power of recuperation owing to the character of the people and to the form of her government.

For centuries the Prusso-Germans have been trained by their rulers to industry, thoroughness and obedience. Prussia has been administered not like a State but like an estate, like a business. The whole forces of the nation have planfully been stimulated and increased by their rulers. They have wisely developed the economic resources and powers of the country. While in other countries suicidal competition is more or less active among the citizens, and while the State leaves the care of the economic activities of the people more or less to the people themselves the German Government has for centuries promoted industry by wise State action.

It has at the same time eliminated all unnecessary competition and has thus converted the whole nation into a gigantic co-operative society.

The marvellous way by which Prussian rulers have re-created the wealth which war had destroyed may be seen from the action of Frederick the Great, whose policy has served as a model to all his successors. The Seven Years' War, which ended in 1763, had been fought largely on Prussian territory. The country was utterly ruined. However, it recovered its former prosperity, very rapidly owing to the King's wise policy which he described in his *Memoires* as follows:—

“There is no way to increase the wealth of a country except by increasing its manufacturing industries. That is clear and evident. Hence the King, after the peace, concentrated all his energy upon this object. Within ten years, by 1773, 264 new factories had been established in the Prussian provinces. Among them was the porcelain factory in Berlin which gave work to 500 people, and its produce soon exceeded in quality the famous Saxon china. A tobacco factory with branches in all the provinces was created and it developed an export trade in manufactured goods.”

“The war had disastrously influenced the Prussian Exchange and had thus harmed Prussia's foreign commerce. Immediately after the peace the inferior coinage was withdrawn and the exchange was improved by a State Bank founded with this object in view. It had a capital of 800,000 thalers which was found by the King. It had at first some bad experiences, but later on proved a great success.”

“Sovereigns, like private people, must make economies so as to have money when it is wanted. Wise agriculturists regulate water-courses and use them for increasing the fertility of the soil. Acting on the same principle, the Prussian Government increased its revenue and used the surplus for promoting the public good. It not only restored what the war had destroyed, but improved all that could be improved. It drained swamps, improved the land, increased the number of

animals in the country and utilised the sandy soil for afforestation. The draining of the swamps along the rivers Netze and Warthe cost 750,000 thalers and 3,500 families were settled on the land thus regained to agriculture. The work was finished in 1773 and 15,000 people were settled where formerly had been a wilderness. The marshes about Friedberg were similarly treated and 400 foreign families were settled there. In Pomerania similar works were undertaken. In Brandenburg the marshes of the Havel, of the Rhine, and many others were drained. About Magdeburg 2,000 new families were planted. Since the death of his father, Frederick William the First, the King had settled 13,000 new families."

"Silesia was not neglected. The ravages which the war had inflicted were made good and improvements begun. The rich abbeys were compelled to establish manufacturing industries, and soon linen, copper, and iron industries, tanneries, and oil mills arose and 4,000 new families were planted in the agricultural districts of Lower Silesia. Large landowners had incorporated peasant properties in their land. Recognizing that the possession of property attaches the citizens to their country, and that they can care little for a State where they have nothing to lose, the landowners were compelled to re-establish the peasants. In compensation the King helped them and improved their credit by means of loan banks. Also he took pleasure in spending 300,000 thalers in repaying some of their most pressing debts."

"All these expenses were necessary. Money had to be lavishly spent in the provinces to accelerate their recovery, which otherwise would have required a century. By acting generously and lavishly prosperity quickly returned, and 100,000 people who had fled from the war-stricken country returned. In 1773 the population was by 200,000 larger than it was in 1756 when the Seven Years' War began. In Upper Silesia 213 new villages were created."

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If Prussia regained her ancient prosperity so very rapidly after the devastating Seven Years' War which was fought largely on her own territory, her recovery may be even more rapid now when her economic organization is so much better than it was one hundred and fifty years ago. Germany could re-create her former prosperity far more rapidly than her antagonists because she possesses a far superior economic organization and a most highly-trained and most obedient population, supposing that other things were equal. In reality however Germany would start after a drawn war with an enormous advantage over her competitors. While the industrial districts of Belgium, Eastern France and Western Russia have been destroyed by the German armies, while their owners have been impoverished and their workers have been dispersed, the industrial districts of Germany have scarcely suffered by the war. Hence, if peace were concluded on the basis of the *status quo ante bellum* Germany's industries would take the place of those of Eastern France, Belgium and Western Russia simply because manufactured products of every kind would be urgently needed and would have to be furnished by those able to supply them. Of course, a drawn war might conceivably be followed by a boycott of Germany on the part of her opponents. Still, the fact that vast industrial districts in Poland, Belgium and Eastern France have been destroyed by the war, would be to Germany's advantage and German goods might be sold abroad through neutral intermediaries, an international boycott notwithstanding.

A drawn war would be disastrous to the world. It would allow Germany to recover her economic strength far more rapidly than her opponents. Consequently, her military recovery would also be quicker, and before long she might be ready for another war with greatly improved chances for success. Hence it does not seem likely that Germany's opponents will be ready to conclude a peace on the basis of the *status quo ante bellum*, a peace which after all would not be a real peace, but merely a short-dated armistice of which Germany would reap the advantage. It seems therefore likely that the war will go on until it is finally concluded with the defeat of Germany.

If the war should end in a German defeat, Germany will have an enormous bill to pay. She will certainly have to make good the fearful damage which she has wantonly inflicted upon all countries, and she will have to pay as large a portion of the costs of the war as can be obtained from the citizens. The sums which will be demanded from her will be very large indeed.

At the end of the war Germany may be financially exhausted, but that fact would not prevent the victors from exacting a huge indemnity from the country. However large the cost of the war may be to Germany, her latent resources and the working power of the people will remain and these are assets of which the victors could, and probably would, avail themselves. They would presumably occupy some of the most valuable districts of Germany and, following Germany's example, retain them as security until the indemnities demanded and agreed upon are paid in full. Conceivably some of the most valuable ports, such as Hamburg and Bremen and some of the most prosperous territories near the frontiers which contain resources indispensable to Germany might be occupied until Germany's war debt was discharged. The troops of occupation would, according to the precedent set by Germany, have to be maintained by the Germans until the demands of the Allies were satisfied.

If such should be the issue of the war the economic future of Germany would be a dark one. To satisfy her foreign creditors, she might be compelled to repudiate her national debt. However, it would obviously not be in the interest of Germany's opponents to see the country economically ruined. A ruined country cannot pay large indemnities. For decades the deluded people would have to work for others, and they would have to pay with their work for the folly of their rulers.

Immediately after the conclusion of the war there would be an enormous surplus of labour in a defeated Germany, for her export trade could very likely not be recovered. Germany might conceivably be compelled to make good the damage caused by her troops, not only by money payments but by payments in labour as well. Arrangements might be made at the peace in accordance with which Germany would have to send hundreds of thousands of able workers to Poland, Belgium and France where they would have to rebuild what

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the German armies have destroyed, and their labour might be accounted for in the indemnity. At any rate, it seems clear that a German defeat would lead to the imposition of so large an indemnity that Germany would require decades to repay it.

The Germans are perfectly right in their frequently heard assertion that they fight for their existence. The Emperor fights for his throne, and the business man fights for his business. It seems obvious that if Germany should be defeated her economic position will suffer irretrievable injury. She will lose in the East and West, and possibly in the South and North as well territories which are of the greatest value to her. The enormous war debt which is likely to be imposed upon her by the victors would cripple her position while other nations would go ahead. Germany might thus become a secondary Power, both politically and economically.

Germany's agricultural districts may suffer comparatively little. The greatest losses will undoubtedly fall upon the industrial and the trading centres, upon the manufacturing districts and upon the towns engaged in the oversea trade, such as Hamburg and Bremen. The latter towns will suffer also through the loss of the German Colonies. Considerable amounts of German capital have been invested there. Their trade, it is true, is not very great, but it has been steadily growing. The Colonies Germany possessed at the beginning of the war were large and important possessions. Their area is five times as great as the whole German Empire and they possess great resources of every kind. South West Africa is rich in diamonds, copper, and other minerals and is highly suitable for stock-raising and farming. The climate enables large number of Europeans to settle there. The other colonies are rich in tropical produce such as vegetable fats, which are becoming increasingly important to the world; rubber, cocoa, coffee, rice, cotton, timber, etc. The German Colonies represent future rather than present values. The German Government has stifled them with red tape. In British hands they will rapidly develop and they may become exceedingly flourishing possessions.

What the Motor Vehicle has Done

By H. MASSAC BUIST



NOT the least remarkable development of this war—which is so odd a mixture of the newest and most experimental instruments, of well-tried arms and of resuscitated contrivances, is the versatile and continually increasing part the motor vehicle has played from the very outset of the campaign. Though the light, portable, liquid-fuel, internal-combustion engine was evolved and began to be used, particularly on the Continent, during the last fifteen years of the nineteenth century, its rate of development during the first fifteen years of the twentieth century has been so amazing by comparison that, in the light of accomplishment during this second period of progress, we now see the first phase to have amounted to nothing more than the crudest form of experiment, the net result of which was a demonstration of the fact that here was a branch of engineering which it would pay to follow to a practical issue.

Thus mechanical transport was a failure in the South African War fifteen years ago, because at that time motors had not been developed to the point of reliability, while the power they were capable of producing was of the most modest order. Hence De Wet and his comrades kept a British army of practically a quarter of a million of men busy for approximately two years ; whereas, when he revolted early in the present campaign, and relied on precisely the same stamp of wonderful Boer pony, the motorists of Johannesburg placed their ordinary touring cars at the disposal of the authorities for breaking across country, through the beds of streams and other obstacles, in pursuit of the rebel, who was rounded up in an exhausted condition in a matter of weeks.

As concerns the part the motor is playing in this amazing war, while the De Wet affair must be counted among those picturesque incidents of the campaign that seize the public imagination, and enable the lay mind to grasp the fact that a

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change has come over the whole scheme of warfare since last the British engaged in a big struggle, it does not really indicate anything of the wonders being rendered possible by motor service in the various theatres in which arms have been engaged. There is but one phase of the incident that gives us the right note on which to start reviewing the work of the motor in this war. The cars that played so conspicuous a part in rounding up the Boer rebel were neither designed nor built for any such work. They were of all sorts of makes, powers and sizes, and were put to hack their way through, with the result that a due proportion of them broke up. But in the circumstances it mattered merely that a sufficient number won through to bring the essay speedily to a successful issue.

In like fashion, when seventeen months ago this nation suddenly engaged in the biggest war in history, for the defence of the very foundations of civilization, and which has since developed into a struggle for the very life of the British peoples, there was a sudden demand, among other things, for a large number of motor vehicles for various sorts of campaign service, because the main issue of the war had to be fought out in Western Europe, in lands well equipped with highways, where every advantage might be taken of their existence. But, as we had not planned the war, we had practically no military vehicles. Therefore, instead we relied, as they did in South Africa, on improvisation to carry us through the initial stages.

For this Great Britain was more favourably situated than either her Allies or her enemies. We had in use in the British Isles as many motor vehicles—over 200,000—as were in service in France and in Germany collectively, which two countries were in turn by far the greatest users of motor transport among the continental nations. Of our total number of vehicles in private and industrial use we had at the outbreak of war some 28,000 heavy or commercial types of chassis, a number approximately equal to that in the service of all the other continental nations combined. We had also a big native motor manufacturing industry. We have, besides, been free to import from America throughout the period of the war, and from Italy during the first ten months of the campaign.

The motor equipment of a nation at war must be in proportion to the number of her forces in the field. We began with an expeditionary force or standing army of considerably less than 200,000 men and with a Government

scheme of subsidising industrially owned types of motor vehicles, notably the varieties of three-tonners, which include the sorts of chassis familiar the world over as the London General Omnibus type. There was, therefore, at no time any difficulty about getting a sufficient number of vehicles rightaway for sending to France with our original expeditionary force. But there was a very serious difficulty about getting men suitable to handle the machines, a problem which we shall probably continue to wrestle with throughout the war despite the fact that the leaven of the motor drivers of all classes in Britain has enlisted. The reason is, that to handle these sorts of vehicles under war conditions, you require men of lengthy road experience. After exhaustive trials the authorities have come to the conclusion that three years is the minimum period necessary. The men with that experience of heavy vehicle driving and who are physically fit for foreign military service are strictly limited in number; while the scale of demand for them rises all the time in ratio as our armies are increased in numbers; and they have already become fifteen-fold as large as our regular forces were on the outbreak of war. Next to the man of experience in handling these heavy motor vehicles, the most suitable have been those who have driven pleasure cars for years and who can be numbered by scores of thousands. For their services, however, there are many demands apart from mere motor transport work because in this war we are using motor vehicles for such a wide variety of purposes. That is why men continue to be needed for all manner of motor driving work at the front.

At the beginning of the war the motor situations for the Allies in the West and their enemies were quite different and wholly in our favour because time was on our side. Hostilities broke out in countries well equipped alike with railway and with highway systems. The enemy took the offensive because he chose his own hour to declare war, therefore he broke through Belgium into France. As he advanced he found railways destroyed but the Allies were falling back all the time on practically intact railway systems. It was the enemy, therefore, who experienced the first urgent demand for motors in the war. He had to feed his armies largely by their means; haul his heavy guns forward as quickly as possible; equip his Staff with fast cars to rush about as Headquarters were changed with the progress of events; rush forward reinforcements of infantry, now here, now there; and, staking his all on

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a quick campaign composed of a series of swift surprise strokes, employ cars fitted with quick-firers to undertake an enormous amount of patrol work that otherwise would have had to be done wholly by the cavalry. Never, in the West, has our enemy experienced such an urgent need of motor equipment as he did in the opening stages of the war in the autumn of 1914. Believing that he would achieve his object if he sacrificed everything to quickness, at that period he recked not what losses he sustained, therefore he concentrated wholly on motor equipment as an aid to expediting his striking force and paid practically no heed to utilising its possibilities for saving his wounded men to fight another day. You must not be over hasty to blame him for this because you must recollect that he had at his disposal at most half the number of motor vehicles that we possessed in the Homeland at that time. He had to sort them out to serve the purposes of an army which, at that period, was at least twenty times as large as our own. Moreover, its sheer magnitude made the moving of it in the thoroughfares available an enormous problem, consequently it was essential, even if there had been the cars at disposal at the period, to limit the numbers placed on the highways in the theatres of war, to avoid as much as possible the choking of them, which was not the least of his problems.

Until you have tried it you cannot believe how difficult it is to keep a convoy of only two score large motor vehicles on a stretch of road without causing a choke of traffic. What, then, is the situation in Western Europe where, during last summer, in connection with the holding of the comparatively few miles of front given into the charge of the British we were employing a daily average of 10,000 three-ton lorries, apart altogether from all manner of other motor vehicles, to a total, including those under repair and so forth, of something in the neighbourhood of 30,000. The motor ambulance service alone in one district actually brought 7,106 wounded British soldiers to the Boulogne base in a period of twenty-four hours. The scale of that service is, of course, being increased with the lapse of every month.

Two points obviously emerge from a consideration of these facts. The first is that no matter how good the roads may have been at the beginning of the war such an excessive amount of traffic, especially of the heavy sort, as they were thus continually subjected to has speedily reduced them to the sorriest state. The second is that since the arteries of

traffic are proving of such great use in the war it has become of prime importance to the belligerents to endeavour to handicap their opponents as much as possible in the free use of the roads, hence these have become as much the object of the attentions of the artillery as have the railways. The highroads and those who traverse them have besides been subjected to all manner of attack from the air, from bomb dropping to showers of steel darts.

Consider this a little in practice. A "Jack Johnson" makes a hole in a highroad sixteen feet in diameter in which you could bury an ordinary car. All the convoys traversing the thoroughfare are held up in a string extending for miles until that hole can be filled up to enable the vehicles to continue, a process which is not usually possible until darkness has fallen. In this manner on the occasion of the famous battle for Hill 60 the report got abroad that our artillery was short of ammunition. That was true; not that there was not plenty of it at our base. What occurred was that the enemy, having the range of the road to be traversed by the motor convoys feeding the guns, and which often go quite up to the firing line, succeeded in shelling a portion of the highway and, therefore, brought those convoys to a halt as absolutely as though they had shelled an important railway junction and made bent wire of all the points, thereby suspending all traffic until the damage was made good.

This, of course, is a game at which two can play. The Allies are no less active and adept at it than our enemies. A variant of the procedure is for a shell—it need not be a big one—from a land battery, or a bomb from an aeroplane, or, if at night, from a dirigible balloon, to light on only one wagon out of a convoy with the result that in destroying the motor vehicle it will be spread more or less across the road, thereby holding up the convoy, maybe for a matter of minutes only, but more likely for a spell that can be reckoned in terms of hours.

The motor vehicles on the West that are worked in the convoy system in batches of forty or fifty of a type are chiefly used for three purposes. Firstly, the supply of ammunition, secondly, for the supply of food and, thirdly, for ambulance work. To give you some idea, in the course of a single afternoon a batch of motor lorries will take forward 125 tons of shell and a million rounds of small arms ammunition. Motor meat safes are among the special varieties of vehicles furnished by the Commissariat Department, which besides

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comprises motor filters, motor field kitchens and so forth. The motor ambulance services, of which the British are out and away the best, comprise various sorts of cars each equipped with stretchers, place for attendant, hot water and so on, motor operating theatres for field service, motor X-ray sets, motor ambulance stores cars and the like. The telegraphic service, wireless and otherwise, also uses motor equipment. All branches of the motor services are equipped with a due proportion of motor repair shops and of motor stores cars, each specially designed and equipped for the particular branch with which it is working. Then there are, notably among the very latest developments, the large and very powerful motor tractors which have been specially evolved since war began for hauling our biggest guns overland. There are besides searchlight cars, large and powerful armoured cars with machine guns, light unprotected cars mounted with quick-firing guns for scouting, heavy motor lorries, many of them fitted with mechanical engine starters, mounting 3-inch and other field guns; various sizes and powers of chassis all capable of fast speed and equipped with high angle anti-aircraft guns; various sorts of passenger cars for the use of the Staffs, for despatch bearers on the roads near the front; lorry or 'bus chassis for rushing infantry reinforcements wherever needed—for which work the French have occasionally used taxicab vehicles, as when the Paris garrison attacked von Kluck's army on the flank—London omnibuses for taking the troops regularly between the trenches and their resting bases miles behind the firing line; billet omnibuses for taking men on leave up and down; motor mail services, radiating from Paris; heavy motor lorries for spare aeroplane parts, dragging trailers specially designed for carrying sets of aeroplane wings and so forth; motor workshops, each specially equipped for repairing either motor vehicles, aircraft or other damaged machinery; fast cars for the air services and so forth.

This bald recital will give some notion of the wide variety of services the motor vehicle is rendering in the current campaign. Yet it by no means exhausts the list which is being continually enlarged by process of specialisation. It will be appreciated that such a vast and complex new organisation could not have come into being on the spur of the moment, but is instead the product of cumulative experience. We have seen how, in the beginning, the British largely improvised their military motor service—an easy enough matter in face of their enormous resources. But we have had to

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learn many lessons in a very brief space of time else we should not be getting the satisfactory results we are obtaining with our motor machinery at the front which to-day includes little single cylinder sets for lighting the trenches by electricity and for draining them during the second winter of the campaign, in which we are enormously eliminating the awful hardships suffered by our troops, but not to so large extent by the Germans, in the first winter of the war.

I have given some idea of the conditions into which the roads fell, but to complete the picture in the west of Europe you must besides have in mind that in large areas of Belgium we did not even start the war with roads proper, a vast number of the thoroughfares we had to use being mere cart tracks and utterly void of foundations, large areas of the land tying flat and being undrained. Thus anybody who imagines that we are making such successful use of motor vehicles in this campaign because the war is being waged mainly in countries with fine roads is wandering far from the facts. Indeed, the great triumph of the motor vehicle in this war lies precisely in the fact that it is making good in places where there are no roads as we are accustomed to them in England, or in the neighbourhood of cities or townships in British dominions overseas.

Of the two chief enemies of motor traffic it is even doubtful if the missiles of the Germans and Austrians are the worse: for months at a spell the heavy rains turn the roads into lakes of thick grease. Things got so bad early in the campaign that in parts of Flanders they had to drop wood, laid like sleepers, along the places where roads had been in order to maintain motor traffic between the base and the front. Soldiers no longer fit to return to the firing line were organized into special corps for patching up roadways because, unlike our enemy, our greatest use for motor traffic has not yet come since that will be only when the time arrives for the great push that is to result in our chasing the Germans off the ground of which they have temporarily possessed themselves.

The three main factors in teaching us our first lessons concerning motor transport in latter-day war were thus supplied by the more or less makeshift and too miscellaneous nature of our original motor equipment; by our inexperience in enlisting men as drivers for this service; by the extraordinary road conditions under which the vehicles had to be used. Near the front the most important moves had to be made at night with none too good lights, with the result

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that the machines tumbled into and plunged and lurched through all manner of holes and pitfalls. It took months before any general system was evolved for controlling the speed at which the vehicles travelled, with the result that they were rattled and jerked about with extravagant uses of the brake on the part of inexperienced or careless drivers. Moreover, whatever there was space to put on to a motor vehicle by hook or by crook was loaded on it, hence machines were sometimes carrying a matter of tons beyond the weight for which they had been designed.

The net result of this was a percentage of accidents which could not be allowed to continue and a rate of wastage of vehicles through breakdowns which was on an appallingly extravagant scale, the more so when it is had in mind that, by improvising these services, there were brought together machines of all manner of types and of different years of production, in consequence of which it was impossible for the field spare-part motor wagons and repair shops to carry anything like the amount of equipment necessary for maintaining such a wide variety of types of motor vehicles as would constitute any one group. Machines worth several hundred pounds would have to be scrapped merely for lack of a spare part which, had it been available, might not have cost more than 10/-. This was as much the case with the ambulance motor services as with any other branch. The main thoroughfares used by the armies became bordered by scrapped cars.

Therefore the first motor lesson of the war was that each special branch of the mechanical vehicle service must be equipped with at most four varieties of chassis, each of which must be quite up-to-date and must possess many features in common with the rest. This standardization of types for given work rendered it possible for the one spare parts vehicle in a convoy, say, of forty machines to store sufficient of those parts to keep every unit of the convoy on the road, because you very soon learn which parts of a given type of chassis constitute its really weak points. Moreover, by thus employing cars of a common type, should the spare parts stores be exhausted, still it is possible when three cars are put out of action to take sufficient parts from one of them to enable the other two to take the road again.

Concerning the weaknesses of construction as revealed by a class of motor service which, from the British manufacturers' point of view, consists of abuse instead of fair use of machinery, we have learned many valuable lessons

already. We should not have had to learn so many had our manufacturers, particularly those concerned with pleasure car construction, recognized that there was scope for motoring under quite other conditions than the practically ideal ones obtaining in England, with its elaborate and highly developed road systems. The firms who have made a point of testing and competing with their cars on the Continent for a matter of years past have come especially well through the ordeal. For example, the French will admit to-day that there is one big British car, the actual evolution of which has for some seasons been undertaken in France, which is a chassis without a rival in the world, at the same time they will point out that there are not half-a-dozen British-made pleasure-type chassis that the war has revealed capable of withstanding the racket of continual continental service. They explain the fact by saying that our average cars are too hot-house bred through the introspective attitude of our designers and manufacturers, who, as a body, are content to assume that if they fulfil home conditions they have produced vehicles fit for service in any part of the world.

For the more intelligent of these manufacturers the war came as a blessing in disguise. But it will spell no good to the less intelligent majority because, in place of learning its lessons, when they have seen their ruined chassis they have merely observed that no reasonable human being can expect anybody to construct a machine to withstand such conditions of service.

Among the vital parts of cars that have failed have been back axles, propeller shafts' universal joints, and steering gears ; while, chiefly owing to bad handling, there has been a goodly amount of breaking of change speed gears. This last connection furnishes an illustration of the discovery of the unexpected. One very well built and designed British type of car developed frequent trouble in connection with the changing of speeds. After exhaustive investigation the only change that was made, and which sufficed to remedy the fault, was to make the parts of the change speed mechanism not better but, from an engineer's point of view, worse. Instead of making them the perfect fit each had been, they were made very loose fits. It was found that by that means no further trouble was experienced under the somewhat pronounced distortion of the chassis consequent on negotiating very bad surfaces with never less than the maximum load for which the vehicle was designed. Nor is this the

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only example the war can produce of the fact that you can manufacture certain classes of motor vehicle too well to get the best results and that the cheaper methods of making are sometimes the more serviceable, for, of course, it is much less costly to make a part that will be a loose fit than it is to make one that will be an exact fit.

After a year and a half of war there are, of course, very few motor vehicles in use at the front which were in service at the beginning of the campaign. Nevertheless, on the average, and since the authorities learned the necessity for strictly limiting varieties of types employed for any given class of work, and enforced strict limits to the speeds at which the motor vehicles are used in the war areas, it has been found that the machines stand this service a deal better and last considerably longer than any experts dared anticipate. It must be remembered that even in the worst winter weather thousands of cars employed near the firing line have to be parked in the open. In consequence starting difficulties have been appalling.

Especially was this so during the first winter with motor ambulances, in connection with which we have to learn a lot because, unfortunately, in the beginning, with the immediate need to improvise scores of ambulances, the most heterogeneous collection of chassis were brought together, all manner of dealers and owners contriving to unload their cars in the name of charity. After the first six months, however, our authorities selected four types of chassis which they decided to be most suitable for this purpose, in the light of experience at the front. They besides caused specifications to be drawn up of standard types of ambulance bodies for British Red Cross cars, with one result, among many, that the comfort of the patient was enormously enhanced by a great reduction in the amount of overhang, and by improvements alike in the springing of the chassis and in the hanging of the stretchers. These ambulances are fairly expensive, but one of them is worth half-a-dozen units of the heterogeneous collections at first available.

To this day the French Red Cross has to be content with using all sorts of machines, such as were employed before the British Red Cross drew up the regulations that had to be fulfilled before it would accept further vehicles. Our Allies, not having the opportunity for acquiring precisely what is best for this purpose, have to continue content with what they can get, because, as they say, any motor ambulance is better than none.

Nevertheless, as concerns motor ambulance construction in general, none of the warring powers has yet standardized the ideal thing, because we continue to use chassis wherein the driver is accommodated, as in an ordinary touring car, behind the engine, therefore in the best-sprung part of the vehicle. Unless a very large chassis is used, this necessitates the patient, whose head is laid to the driver's back, projecting beyond the back axle. In some of the smaller sorts of motor ambulance chassis, which you will still see in use in England, and which the French are still using at the front, as much as two-thirds of the patient's length projects beyond the back-axle line. In other words, that proportion of his anatomy is subjected to the maximum possible vertical and lateral oscillations as the vehicle travels, because it is, as it were, on the extreme end of a see-saw, with a sideways as well as an up-and-down movement, instead of being in the middle, as it would be in a chassis of moderate length, wherein the driver were accommodated above the engine, as for example, in the case of the continental omnibuses. In the classes of wounds received in modern battle it is, of course, essential to keep the patient as immune from jarring movements as possible. Yet other conditions to be fulfilled are that it is generally possible to get him away from the firing line only when night falls, therefore when journeying through the darkness the driver cannot pick a way to dodge the worst obstructions and pot-holes in the road ; while the circumstances in which the motor ambulances often have to be manœuvred when coming up to where the stretcher-bearers are in waiting for them dictate that the vehicle must be capable of being turned in comparatively brief compass, hence its wheelbase may only be of moderate length.

The most utterly novel type of motor vehicle used in this war has been the most successful from a mechanical point of view. But to preserve our sense of proportion we must have in mind that, because of its sheer novelty, the manufacturers produced it foreknowing the conditions it would have to fulfil, whereas in nearly every other branch of the motor service in the beginning, at any rate, the equipment consisted of chassis never intended for war use. The quick successes of the Germans, and the scheme of our air services, combined early to demonstrate that there was a wide variety of uses for mobile gun sections. In a few months after the commencement of the campaign we had evolved so many varieties that a group of them went some way towards reproducing the equipment of a battleship.

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From the motoring point of view speed has not been a prime requirement for chassis other than for the use of the high command and for these gun-mounted cars.

Thus, one of the earliest tactics adopted for clearing Belgian villages of the enemy was for units of an armoured car squadron to approach the given centre by a variety of roads converging on it, turn the cars back to the village, play on it with their guns so that it was soon established whether the enemy were there in force or not—and, if the answer was in the affirmative, the drivers would put in their forward speeds, one after another, and race away again as fast as they could, having left a tidy amount of damage behind them as a souvenir of their visit.

Another class of service for armoured cars was illustrated in the fighting round Hill 60 where we rushed forward a series of these vehicles over broken ground to keep off the enemy's reinforcements while our own were being brought up. This class of motor vehicle mounted with quick-firers succeeded admirably in its task. Britain has also supplied Russia with this sort of armoured car on large chassis mounting two gun towers and two guns apiece. I have seen an example that on one occasion was under rifle fire at close range for nine consecutive hours and which, having done its work at the end of that spell, was driven off with ammunition exhausted but no damage to the vehicle other than a peppering of little indentations, each of which scratched a little paint off the plating. The two gunners were uninjured, but the officer-in-charge was killed by a bullet passing through a hinged joint in the armour plate, which was afterwards tested, when it was found that the spacing in question was a tight fit for the bullet used by the enemy, therefore chance must have sent it through at the only possible angle. Another bullet ricochetting from one of the louvres for peering through the armour plating caused slight injury to the forearm of the driver—not a bad record after having been subjected to a hail of bullets in the position of a fixed target for nine hours.

A use for gun-mounted, as distinct from armoured cars, is for service with aircraft squadrons. In this way we are able, not only to attack Zeppelins from fixed points, but to follow them about in their raids over the British Isles during the night-time, when we score some palpable hits. Likewise when on the Continent the Allies make an important air raid to any inland centre in Germany where airships may be built or housed, or guns in process of making, or chemical

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work in progress, or ammunition being stored, our aerial squadrons are accompanied to as near the enemy line as possible by cars mounted with high-angle guns so that, as the fliers return from their task, we can attack any pursuers who threaten them, or can make an attempt to dash to the rescue of any pilot whose machine fails him just as he is coming to the safety zone.

In German South-West Africa, when the Union forces first came into contact with the enemy, they were quite outnumbered; but they had several armoured cars, which the German aerial scouts had mistaken for water-carts. These khaki-coloured, steel-clad tortoises pursued the even tenour of their way until they had arrived at the spot where they were most needed, when they came suddenly into action, cutting down the Germans like corn, and saving the situation. The enemy, superior in numbers, beat a hasty retreat, after sustaining very heavy losses.

Likewise in the Dardanelles operations the armoured car squadron has played a conspicuous part. These armoured turret motor vehicles of the Royal Naval Air Service were among the earliest apparatus taken ashore, and were so successfully concealed that comparatively few of the British had seen them before the morning arrived for springing them as a surprise on the Turks. Two tolerable tracks led from Sedd-ul-Bahr and Cape Helles to Krithia, being ankle-deep in loose dust and pitted with shell holes, because they cut the enemy's trenches at right angles. Four of these cars sped along each of these routes, at about fourteen miles an hour, to the firing line at noonday, that their attack might coincide with that of our first line. They rocked and jolted right up to the enemy's trenches, then halted and commenced scattering the Turks with their quick-firers. Recovered of their first surprise, the enemy retorted with shells and rifle fire, yet the only damage sustained was the knocking off of one turret, all the cars being brought back at the end of the engagement, and only a few men wounded.

Thus we see that henceforth the motor vehicle is destined to be used in warfare alike where there are roads and where there are none. Should the campaign continue for another year there will be enormous developments in the class of vehicle we shall be using, because the rate of wear and tear is so rapid that practically all those at present in use will have to be replaced within that period, and naturally all new chassis are being built in the light of experience in the campaign.

Aircraft as Belligerents

BY C. G. GREY
Editor of "The Aeroplane"



BEFORE beginning to consider what naval and military aircraft have done in the war, it may be well to fix firmly in one's mind the fact that the aeroplane of to-day, and even more the airship of to-day, is still a very primitive form of vehicle compared with the machine into which it will ultimately develop. It is, say, in the stage of the warships of the Crimean period as compared with the most modern battle cruiser,—and it is quite easy to see fresh stages of development even for the present-day battleship. Consequently the aeroplanes used in the first year of the war have been very feeble machines compared with those already in sight, at any rate in the mind's eye of any up-to-date aeroplane designer.

It is true that some of these primitive feeble machines could fly about 100 miles an hour, though most of them—especially the Germans—did between 55 and 75 as their best speed. It is also true that some of them (the Russian Sikorskis, for example) could lift three or four men and a regular battery of machine guns, and hundred-weights of bombs. Furthermore, the Germans and the British particularly have had machines which cannot capsize in the air, even if the pilot lets go all control. But each of these qualities—so desirable in a fighting aeroplane—has been the outstanding feature of one machine or other, whereas the average service pilot would like to have the lot combined in one aeroplane, and that one aeroplane of such size that it could carry guns bigger than machine-guns, so that no other machine could venture near it.

As a matter of fact, just at the end of the first year of war the Germans produced machines coming fairly close to those conditions, but even so they are still a long way from the ultimate aeroplane as it can be seen even in the light of our present limited knowledge.

Therefore, when one considers aircraft and their work one feels that the aviators of all countries have done extraordinarily well with very imperfect instruments—which saying is not by any means an excuse for the defects of the flying services, but rather a glorification of the men who have done the flying. And this applies not to the British pilots alone—though they started under a greater handicap than those of any of the other original belligerents—but to the French and Russians, and to the enemy pilots also.

THE WORK OF THE BRITISH FLYING SERVICES

Naturally we in the British Empire are more closely interested in the doings of our own men than in those of even our Allies, so it may be well to recall in some detail what has been done by the Royal Naval Air Service and by the Royal Flying Corps, taking the Navy first, as the Senior Service, and keeping carefully within the facts stated in official communiqués so as not to run any risk of giving away information to the enemy, even though that information may be twelve months old and valueless at this date.

The prime intention of the Royal Naval Air Service at its formation was that it should operate in conjunction with the Fleet at sea, or with coast defence vessels, or even from coast defence stations ashore. Unfortunately, from the R.N.A.S. point of view, the German Fleet has chosen to intern itself very successfully in its own harbours, and consequently from the point of view of discovering enemy ships in quantities, the naval aviators have been deprived of their lawful vocation.

The first activity of the Naval Air Service at the commencement of the war was naturally to start a system of patrols in case German warships presented themselves. The ordinary coast patrol work from the various stations existing before the war was carried on extensively, and a detachment of seaplanes was stationed at Scapa Flow, whence they patrolled the North Sea practically as far as the coast of Norway, on the lookout for any German vessels which might attempt to break out into the Atlantic and harass our mercantile marine. This fact was disclosed practically at the time, when it was reported that two officers had started from Scapa on a seaplane, and had been lost at sea.

Aircraft as Belligerents

It is true that not much was discovered by these patrols, for the good reason that there was next to nothing for them to discover, but it afforded excellent practice for a number of pilots, and also wore out, or smashed, a number of elderly machines, which have since been replaced by others which are more modern and more efficient, so that this work was very much for the benefit of everybody concerned.

As soon as the British Expeditionary Force started to cross the Channel, the Naval Air Service did very valuable work in patrolling the sea on the look-out for German submarines. Naval airships patrolled between the mouth of the Thames and the mouth of the Scheldt, and seaplane patrols guarded the Straits of Dover. Between them the various seaplanes must have covered some tens of thousands of miles during the first two months of the war, and it speaks wonders for the safety of this species of flying that only two lives were lost, both of them in the same machine, so that there was in reality only one fatal accident. For this, credit must be given not only to the pilots themselves for their skill, but also to the air mechanics of the Service, whose duty it is to keep aeroplanes and engines in proper flying order.

Not long after war began, several small fast steamships were chartered as seaplane-carriers, and during the autumn and early part of the winter, these vessels continually patrolled the North Sea, chiefly on the look-out for German surface vessels and aircraft, but it was found that they were also quite useful in assisting mine-sweepers, the observer on a seaplane being able to spot a mine some distance below the surface of the water on suitable days, and naturally the speed at which the aeroplanes were able to cover considerable areas of sea made it possible for them to do considerably more in a given time than any other type of vehicle.

The activities of this squadron of seaplane-carriers, culminated in the raid on the Cuxhaven section of the German coast. In the course of this raid a considerable amount of information was gathered and some material damage was done, but since that date very little has been heard of that particular squadron. It may, however, be permissible to state that it has done a very large amount of hard work on regular patrols, though the absence of German shipping has made the work somewhat boring for the pilots.

Other and larger seaplane carrying ships have done valuable service at the Dardanelles, and also on the East Coast of Africa, where the seaplanes they carried enabled our warships finally to destroy the *Königsberg*.

In several Admiralty communiqués, it has been announced that seaplanes starting from air stations on the British coast have assisted in raids on Belgian coast towns held by the Germans, and also in controlling gun-fire of ships bombarding the said towns.

When one considers that only about twenty seaplanes represented the full effective strength of that branch of the Naval Air Service at the Naval Review at Spithead in July, 1914, it becomes evident that a considerable increase has been made in this branch of the Service, and that despite the self-enforced absence of its pre-ordained victims, the naval seaplanes have quite justified their existence.

That section of the R.N.A.S. which handles shore-going aeroplanes has been considerably more in the public eye than other branches. A detachment of this section crossed to Ostend in September, partly to help the Belgian Army and partly to keep an eye on the westward advance of the Germans in Belgium, after the main body of the Army had begun its southward progress in pursuit of the British Expeditionary Force after the defeat at Mons. This detachment acquired the possession of certain armoured cars, and engaged actively in a species of guerilla warfare with the advance bodies of German cavalry which preceded the main Army. A considerable amount of fighting was done, the aeroplanes acting as scouts for the armoured cars, and occasionally as actual weapons of offence. A D.S.O. and one or two mentions in despatches were won, certain Iron Crosses and other articles of German equipment were acquired as souvenirs, and the force succeeded in making itself a considerable nuisance to the Germans.

But the first action of definite importance carried out by the R.N.A.S. was a raid into German territory by aeroplanes, starting from Antwerp. In the first raid the Zeppelin shed at Düsseldorf was damaged, but shortly afterwards, in fact on the very day that Antwerp fell, a second raid destroyed the same shed and a brand new Zeppelin inside it. At the same time another pilot damaged the railway station at Cologne. The loss of

the Zeppelin was a serious blow to the prestige of these vessels, and the demonstration that German towns a hundred miles or so behind the fighting line were not immune from assault had considerable moral effect.

Later, when the Germans occupied Antwerp and the Belgian coast, the land-going detachments of the Naval Air Service were stationed near Dunkirk, and carried on a consistent policy of annoyance against the Germans in Belgium, stores depots and airship sheds at Brussels and Ghent were continually bombarded, and special efforts were made to damage submarines in the making at Antwerp and in the docks at Ghent and in the harbour at Zeebrugge. These various operations were attended with considerable success, and raised such a state of nervousness in the German camps that enormous quantities of German anti-aircraft guns were concentrated at the points habitually attacked by the naval pilots, so that these valuable weapons were withdrawn from the actual fighting line further south and east.

This detachment of the R.N.A.S. came to be regarded ultimately as a regular portion of the defence of the British Isles, rather than as an offensive force, as in the case of the military aeroplanes, because the continual attacks on airship sheds acted as a strong deterrent against Zeppelin raids on the British coast, and it became evident that it was not healthy for airships to exist within something like a hundred miles of Dunkirk, and the raids in the autumn seem to have been made from German bases rather than from Belgium.

One of the most convincing proofs of this was the destruction of two Zeppelins in one day by naval aviators, when two officers destroyed a shed and an airship near Brussels, and another one brought down an airship while on his way to try and find another airship shed. For this feat he was awarded the V.C., and the other officers were given the Distinguished Service Cross. The officers who previously raided German territory were given the D.S.O.

Another notable feat by naval aeroplanes was the raid on Friedrichshafen, when the main workshops of the Zeppelin Company were damaged, and new airships under construction were so much delayed that the effect on the output of Zeppelins was the same as if one of the airships had been completely destroyed and another one had had to be built to replace it.

In addition to these various raids, small detachments of the Naval Air Service had begun towards the end of the first year of war to co-operate with the Royal Flying Corps in the regular routine of military reconnaissance and artillery fire control.

After some eight months of war, the Naval Air Service began to equip a number of detachments with kite balloons, these being captive balloons of a type invented in Germany and designed to be usable in high winds when the ordinary spherical captive balloon cannot be operated. It took a considerable time to convince the high authorities that these curious vessels are of military value, but the fact that they are used to a very great extent by the German Army finally forced the authorities to believe that a moveable observation post at an altitude of anything between 500 and 3,000 feet has advantages over local church towers, and is moreover somewhat more difficult to hit. These kite balloon sections have done good work in Flanders and at the Dardanelles where, thanks to their observation, the results of gun-fire have been greatly improved.

The airship section of the Naval Air Service has also done valuable work on patrol, but it is not advisable at the moment to specify its later activities, which have been out of view of the German fighting forces. Suffice to say they have been of considerable value.

Taking it all round, the Naval Air Service, despite its necessary limitations, has more than justified its existence, and as a result the Service is being rapidly expanded. In September 1915 it was placed under the command of Rear-Admiral Vaughan-Lee, R.N., after having been previously only a commodore's command. Commodore Sueter, C.B., R.N., who was previously Director of the Air Department was appointed Superintendent of Aircraft Construction, and Admiral Vaughan-Lee was given the title of Director of Air Services.

THE ROYAL FLYING CORPS

When one comes to consider the work of the Royal Flying Corps, it is much more difficult to specify individual acts of distinction, primarily because the Flying Corps as a whole strongly objects to being advertised, and secondly because so much of its work has been a regular routine of reconnaissance and artillery observation.

In the very early days of the war some four squadrons of the R.F.C., something less than a hundred machines in all, flew to France to act as air scouts for the Expeditionary Force. Thanks to these scouts, the Commander-in-Chief was warned that the German forces opposed to him were at least three times as great as was expected, and that to stand and fight meant almost certain annihilation. As a result of the warning thus received, the masterly retreat from Mons was begun, and successfully continued back to the line of the Marne. In the absence of aircraft, it is more than probable that no attempt would have been made to retreat until the force had been overwhelmed, and thus it is fair to claim that the R.F.C. not only saved the British Expeditionary Force, but also the left wing of the French Army, and the City of Paris.

What would have happened if such a crushing blow as the loss of Paris and the bulk of the French Army had befallen France in the first month of the war, it is impossible to judge, and perhaps unfair to guess, but it is certain that the course of the war would have been very materially altered, and that at best the task of supplying and reinforcing the British forces still left in France would have been immensely increased. When the German advanced forces had been defeated on the Marne and were in full retreat for the pre-arranged defensive positions on the Aisne, the Royal Flying Corps was able to indicate the weak spots in the German line of retreat at which it was advisable to strike, and thus the German losses were materially increased.

On the other hand, the German air scouts were able to give some warning of where the Allies' attacks were to be expected, so that they were able to cancel out to some extent the work of the R.F.C., despite the individual dominance obtained by the British aviators over the Germans, as indicated in Sir John French's famous despatch.

At a later date, when the new French Armies and the reinforced British Army endeavoured to outflank the German position on the Aisne, the R.F.C. made a gallant effort to clear all German aeroplanes out of the air, and thus to cover the movements of the Allied troops to the north-west. A considerable measure of success was attained, but the Germans managed to ex-

tend their lines as rapidly as the Allied troops advanced, and as a result we found ourselves at the end of a year of war, with practically a continuous line of entrenchments from Switzerland to the North Sea, and there is no disputing the fact that the efficiency of the air scouting on both sides is largely responsible for this deadlock.

This peculiar result of aerial reconnaissance is deeply interesting in view of the fact that, when aircraft first became recognized as a necessary portion of military equipment, it was prophesied that by enabling the rival commanders to penetrate "the fog of war," a decisive action would be forced on them much quicker than in any previous war, and so, although the loss of life in these decisive actions might be heavier owing to the increased efficiency of methods of slaughter, the total cost would be cheaper owing to the saving of time. It has, however, now been proved that the net effect is to prolong the war, simply because it is impossible for any commander to mass troops at any one point without his air scouts warning the opposition commander in time for him to prepare an adequate defence or a counter-attack.

Over and over again when the Germans have massed troops in Flanders preparatory to an attack on the British lines, the R.F.C. have spotted the movement, and the enemy's onslaughts have been satisfactorily met. In this way it has been proved impossible to launch surprise attacks. The Germans have become adept in the use of surprise methods of attack, such as poison gas and liquid fire, but even when these methods have succeeded in making a breach in the Allied lines, men were necessary to hold any ground gained, or to break through the gap thus formed, and, as it has been impossible to concentrate these masses of men, the surprise methods have failed in their effect.

Before the war, and even during the first part of the war, there was a disposition among military people to regard aeroplanes purely and simply as scouts, and to refuse to consider them seriously as weapons of offence. Occasionally pilots of proved skill were permitted to go out on small bomb-dropping expeditions, but this was regarded rather as providing a day's sport for the aviator, by way of light relief from routine work, than as a serious part in military operations. The only

form of offence in which aeroplanes were supposed to take part, was when a machine had sufficient speed and climbing power to permit the pilot to attack an enemy aeroplane with such arms as he might have at his disposal.

A year or more before the war, General Henderson, then commanding the Royal Flying Corps, and until commanding after a year of war, foretold the advent of large fighting aeroplanes, which were to command the air or to fight their way through the enemy's aircraft to obtain such information as might be required, but no serious attempt had been made to produce such aircraft up to the outbreak of war. After nearly a year of fighting, it was announced by the Under Secretary for War in the House of Commons, that such aircraft were actually under construction in this country, and this information was only extracted after the Germans had put into the air at least one fighting machine worthy of some consideration.

Individual duels in the air between pilots were common during the early part of the war, and on these occasions the British pilots clearly proved their personal superiority over the Germans. But it was not until the regular trench warfare had settled down into a species of national industry that organized assaults from the air became common.

The first official intimation of such action came after the battle of Neuve Chapelle, when various officers of the R.F.C. were decorated either with the D.S.O. or the Military Cross, for dropping bombs of large size on various railway junctions and bridges behind the German lines, and thus effectually preventing the bringing up of reserves of men and ammunition to the German fighting line.

As in the case of the R.N.A.S., great expansion of the R.F.C. is taking place, and at the end of August three Brigadier-Generals were appointed to command Brigades of the Flying Corps under Major-General Henderson. In this we may see the beginning of a really big force of aircraft intended definitely for offensive operations, instead of merely as accessories to other arms.

This brief review of the work of the R.F.C. indicates that it has had a very definite effect on the whole course of the war, not only by the good service it has

done in actually saving the Expeditionary Force from almost certain annihilation, but in assisting the armies in Flanders to maintain their positions against German attacks in superior numbers. When one recollects that at the concentration of the R.F.C. on Salisbury Plain, only a month before the outbreak of war, the various military attachés, including those of Germany and Austria, who were invited to inspect the display, could not possibly have counted more than thirty aeroplanes in flying order at any one time, it is evident that the R.F.C., has done considerably more for the country than the country had the slightest right to expect from it, and this fact is emphasised by the discouragement everything connected with aviation received from the Government officials in general, practically until war actually began.

THE FRENCH "SERVICE AÉRONAUTIQUE"

At the beginning of the war, the French Flying Corps was unfortunately in process of reorganization. Certain lamentable abuses had been discovered by those in authority, and a great effort was being made by several distinguished officers to put things straight. The French pilots are second to none in skill and bravery, but the best flying corps in the world cannot be effective as a corps without perfect organization, and that is precisely what the French Flying Corps had lacked for several months. The main German attack was expected through Alsace, and consequently the pick of the French pilots, and those squadrons of the French Aviation Service which were known to be efficient, were sent to the Eastern frontier, where, as it turned out, there was very little for them to do. The result was that all the air scouting on the northern and western fighting line was done by the British R.F.C.

When General Hirschauer, one of the most efficient officers in the French service finally got a firm hold on the general condition of French aviation, things were very quickly altered, and a complete reorganization took place. Certain aeroplanes, which seemed to be in favour more because of the personality of their constructors than on account of the merits of the aeroplanes, were scrapped wholesale, and the whole of the aircraft industry of France was turned on to producing aeroplanes of three or four approved types, and no more.

This process of standardization not only resulted in an enormous increase in the output of aeroplanes, but also facilitated the equipment of the squadrons in the field, and their supply with spare parts. After some months of this reorganization, the French Flying Corps became highly efficient, and it was the French who first put into practice the use of very large aeroplanes, carrying bombs of large size for the purposes of organized bombardment of German supply depôts and of munition factories in Germany itself.

Towards the end of the first year of war, bomb-dropping raids of this nature became regular weekly occurrences, thirty to forty aeroplanes taking part in each raid. As each aeroplane could carry between 200 and 400 pounds of bombs, a raid of thirty machines would represent between three and six tons of bombs dropped on or near the unfortunate target. As a result, an enormous amount of damage was done to German supplies, and all the German towns within fifty or sixty miles of the frontier became decidedly uneasy about their safety. The resultant moral effect on such a well-organized people as the Germans was naturally great, for being carefully trained to think together, their training would naturally increase rather than decrease any panic which might arise.

The work of the French Aviation Service in controlling artillery fire was particularly good, and the skill and bravery of individual pilots in attacking German machines of superior size and armament, was remarkable, and achieved considerable success. Apart from the operations in France, French aeroplanes assisted the British forces in Egypt during the Turkish attack on the Suez Canal. Two French officers were given the Distinguished Service Cross and one French pilot was given the Distinguished Conduct Medal for good service with the British forces.

Other French aeroplanes, both seaplanes and land machines, assisted at the Dardanelles, and several notable French aviators went to Serbia to organize the Serbian Flying Corps, and in the early part of the war between Italy and Austria, a small detachment of French seaplanes was sent to Italy to patrol the Venetian district in case of Austrian attacks from the air.

Considering the enormous length of the French fighting line, it is extraordinary that France has not only

been able to make up the defects in her original Air Service, but has reached a high state of efficiency along that line, and has been able to spare machines and pilots for the work abroad.

In addition, as Sir John French noted in a despatch published in August, 1915, the French aircraft industry has been called upon to make up deficiencies in the supply of British material, caused as already mentioned, by British apathy in the past. In fact, practically for the first year of the war, England was entirely dependent on France for her supply of engines, and it was only after twelve months of mis-organization that anything like a supply of British engines became available. It may thus be seen, that with all the defects of the French Aviation Service, this country is very deeply indebted to France for every success it has achieved in the air. As in the case of the British Service good work was done by airships, but its nature must not be divulged.

GERMANY'S AIR WORK

The German Flying Corps, like everything else connected with the German Army, was a marvellously organized piece of machinery. The figures I published a year ago* as to the numbers of German aeroplanes available have been fully borne out by the apparently inexhaustible stock of German aeroplanes which have appeared throughout the war. At the beginning of the war, the German monoplanes of the Taube, or "Pigeon" type, were utterly outclassed by the British and French machines, but the perfection of the organization of the corps enabled those machines to be used with the utmost effect throughout the retreat of the Allies from Belgium. The German aeroplanes were used almost entirely for controlling artillery fire, and though numbers of them were shot down, fresh ones kept on coming up.

Some months later, there began to appear over the west front German biplanes of types similar to those which had placed to their credit practically all the world's records for duration and altitude a month or two before the war. These machines, which are commonly known as Aviatiks, to distinguish them from Taubes, soon proved that although they might not be as fast as the fastest British machines, they could always climb out of reach

* "War Facts and Figures" issued by The British Dominions General Insurance Co., Ltd.

of pursuers, and were practically never brought down by failure of their engines, whereas French and British pilots were continually lost, or at any rate compelled to descend, through this cause.

About June, when the hostile forces were firmly fixed in Flanders, German aeroplanes became very scarce on the western front, and optimists claimed that the German aviators had been driven out of the air by the superiority of the British and French. Others, who knew the German character better, formed the opinion that the Germans were saving up their aeroplanes for an onslaught in force on the British aviators when the next big attack was delivered by the German Army.

Later, it became evident that the western front had been denuded of aeroplanes so as to cover the whole of the eastern fighting line, where the German Flying Corps had to supply machines and pilots, not only for their own line, stretching from Riga down through Poland to the Austrian frontier, but also for the whole of the Austrian front down to Roumania, and also to supply aviators and machines for the Turks.

The fact that the Germans were able to do all this, and yet to keep enough machines on the west front to avoid being surprised by British attacks, may give some faint idea of the number and efficiency of the German aerial forces, especially when it is remembered that the unusual mobility of the Russian forces and the depth of country over which scouting was necessary in order to follow the precise movements of the retreating Russians, would call for many times the number of aeroplanes necessary to obtain information over a shallower front.

Towards the end of the first year of war, various large fighting machines appeared on the western front. These machines were huge biplanes, with two or more engines apiece, and generally carried a crew of three, one a pilot, and the other two each armed with a machine-gun. In the biggest machine with three engines, it is even stated that a gun of larger calibre than a machine-gun is carried. Although a few picked pilots on specially fast machines have been able to bring down these big German battle aeroplanes, they were more than a match for the average aeroplane used by the Allies, and though they have probably been equalled or beaten by the time this article appears, they did for a time undoubtedly dominate the air over certain sections of the western front.

As regards the German Airship Service, the much despised Zeppelins were of the very greatest use throughout the first year of war, in following the movements of British ships against the Northern German ports, and also in keeping guard against submarine attacks. It is stated in Germany, that submarines working in conjunction with a Zeppelin, were responsible for the sinking of three British cruisers in one day in the North Sea, and there seems good reason to believe the statement.

The Zeppelin raids on the British coast caused a considerable number of deaths and injuries, and much destruction of property, but were of course of no definite military value, whereas the work of the Zeppelins in conjunction with their submarines was undoubtedly valuable.

Up to September 13 there had been 21 raids on these shores by hostile aircraft since the beginning of the war. The total casualties through air raids to that date are about as under:—

KILLED					INJURED				
Men	...	...	...	50	Men	...	...	...	168
Women	...	...	...	39	Women	...	...	...	114
Children	...	...	...	27	Children	...	...	...	58
Total	...	...	...	<u>116</u>	Total	...	...	...	<u>340</u>

The following are the dates of the various raids:—

- December 5 (1914).—Dover.
- December 25.—Dover and mouth of Thames.
- January 19 (1915).—Yarmouth, Sheringham and King's Lynn.
- February 21.—Colchester, Coggeshall and Braintree.
- April 14.—Blyth and Tyneside.
- April 15.—Maldon and Lowestoft.
- April 16.—Faversham.
- April 29.—Ipswich and Bury St. Edmunds.
- May 10.—Southend district.
- May 17.—Ramsgate.
- May 27.—Southend and Westcliff.
- May 31.—Outlying London.
- June 4.—East and South-East Coast.
- June 6.—East Coast.
- June 15.—North-East Coast.
- August 9.—East Coast.
- August 12.—East Coast.
- August 17.—Eastern Counties.
- September 7.—Eastern Counties.
- September 8.—London district and Eastern Counties.
- September 12.—Eastern Counties.

The appointment of Admiral Sir Percy Scott, Bart., K.C.B., K.C.V.O., LL.D. in September to control the gunnery defences of London against aircraft, was eminently a step in the right direction.

RUSSIAN AIR WORK

Of the work of the Russian Air Fleet, very little is known, beyond that the size of the said fleet was inadequate to the size of the country and its army. It was naturally a much bigger fleet than that of the combined British Flying Services, but it was nothing like so well organized or so well equipped; consequently the machines became unserviceable in a much shorter time, and the native Russian industry was inadequate to replace them.

The big Sikorski biplanes, of which much has been heard in the Press, have certainly been used, but apparently without very much success, and smaller Russian aeroplanes built on French models, have done most of the work. At a later date, a number of aeroplanes were ordered in America, but naturally there was difficulty in delivering them. Nevertheless, wherever a Russian pilot on a reasonably effective aeroplane has had a chance, he has certainly proved himself at least the equal of his German opponent, though unfortunately the numbers of pilots and machines were not sufficient to tackle the German Air Service.

It seems however probable that much of the success of the Russian retreat from Galicia, and later from Poland, was due to the Russian aviators being able to indicate where the great masses of German troops were moving.

The foregoing review does not pretend in any way to be a detailed account of what the flying services of the various nations have done. It is merely a very brief review of their general work, and the somewhat considerable length to which it extends, indicates perhaps the importance which the new arm is already assuming after some twelve months of use, in what is practically its first war.

The writer can only hope that what he has said may suggest to his readers the very great importance of effective and efficient flying services to the British Empire, scattered as it is throughout the world, and yet with its heart so situated that only command of the air in the future, as absolute as the present command of the sea, can protect that heart from invasion in the next war.

Insurance

WHAT IT IS AND HOW IT WORKS

By E. M. MOUNTAIN

Managing Director,

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IT is somewhat strange that the origin of insurance should be lost in obscurity. While fire and life are comparatively recent branches, the business of marine insurance, in one form or another, has been carried on for more than a thousand years.

In the committee room at Lloyd's there is a policy dated 20th January, 1680, on goods by the ship *Golden Fleece*, from Lisbon to Venice. Another one, dated 3rd September, 1794, is on the ship, goods and merchandise of the *Guipuzcoa*, sailing from Liverpool to the West Coast of Africa, thence to Cuba. This policy is of special interest, owing to the fact that slaves are stated in the policy as being valued for insurance at £45 each. The insurance of slaves reached large proportions and Lloyd's underwriters were responsible for the first blow being struck in favour of the suppression of the slave trade. By the terms of the policy, a loss could only be claimed when death was caused by one of the perils mentioned in the policy. The captain of one vessel who lost a large number of slaves owing to disease, threw them overboard, and claimed on his policy. Lloyd's underwriters contested the case in the Courts, and the publicity thus given to the trade resulted in public opinion being aroused to such an extent that the work of Wilberforce and others became possible.

The first record of fire insurance is in 1635, when some citizens petitioned Charles I. with reference to a proposal to insure against the risk of fire. Nothing appears to have been done until after the great fire of 1666, but in 1681 a private fire office was opened at the back of the Royal Exchange. The rate of premium was based on the yearly rent of the house, $2\frac{1}{2}$ per cent. being charged for a brick house and 5 per cent. for a frame house, it being understood that the rent was one-tenth of

the value of the insurance. Life insurance made a small beginning at the end of the 17th century, and the Amicable was established in 1706. An instance of the speculative character of life insurance undertaken in the last century is shown by a policy at Lloyd's, dated 21st May, 1813, "to pay a loss should Napoleon Bonaparte cease to exist or be taken a prisoner before 21st June, 1813." This was only for a period of one month, and a rate of three guineas per cent. was accepted for the risk. Life insurance, like every other form of protection against the ills to which flesh and property are heir, has become part of the economy of our national life. Never, perhaps, has the importance of insurance been so fully brought home to the minds of rich and poor alike as in the crisis through which the country has been passing in the last fifteen months. The life offices have responded generously to the call of patriotism. In one direction a new form of "war risk" has appeared. Zeppelin and aeroplane raids have, for the first time for hundreds of years, brought the reality of war home to many people who believed themselves secure in "our right little, tight little island." The Government itself by its scheme of insurance against air and sea raid risks have, in some measure, done for the land what in the early days of the war they did for the sea.

To revert to marine insurance, this was a monopoly of Lloyd's underwriters until 1780, when special authority was given to the London Assurance Corporation and the Royal Exchange Assurance Corporation. It was not until 1820 that an Act was passed by which marine insurance was thrown open to the public, but only after the passing of the Joint Stock Companies Act in 1844 were the first marine insurance companies actually established. Lloyd's, however, still remains a closed corporation to outsiders. No insurance is accepted by Lloyd's underwriters except through a broker who must be a subscriber or a member.

The first difficulty which confronts a novice in marine insurance is the policy, the wording of which is archaic. The form was established in 1779, and with two small exceptions remains unchanged. The word is a relic of the Italian influence and means simply a promise. The old form is maintained because so many law cases have been decided upon the wording that any alteration might have unfortunate consequences for both insurers and

insured. The principal control of marine insurance rests in the hands of the underwriter, who is responsible for deciding what risks the company will accept

It is often said that an underwriter must be born and not made. With this view, however, I do not agree, because whilst it must be admitted that certain individuals have more natural aptitude than others for this particular business, I believe that underwriting, like most other professions, is largely a matter of careful study and experience. With the enormous rush in which marine insurance is placed an underwriter very seldom has time to ascertain every fact he would like to know, in order to form an absolutely accurate judgment. There are many unknown points at which he has to make a shrewd guess as to probabilities. The more experience an underwriter has, the more he should understand the risk offered, in spite of the fact that the broker offering it is unable to supply the information.

The business of marine insurance is roughly divided into two classes, first, insurance on the hulls of the vessels themselves, and second, on the cargoes which they carry. The principal points in considering hull insurance are the standing and record of the owners, the trade the vessel is likely to be employed in, the type of vessel, the standing of the builders, and the value on which she is to be insured. Underwriters are not only liable for total loss of the vessel, but for damages that may occur owing to bad weather, or the vessel being stranded, sunk, burnt, on fire or in collision. Here it is that the value is such an important factor to the underwriter. If a boat for the purposes of insurance were valued at £20,000, and an individual underwriter accepted £1,000 on the risk, he would be liable for one twentieth of any such damage. If the same boat were valued at £40,000, he would only be liable for one fortieth. Another important feature is very carefully to watch the ownership, because an owner with an excellent record may die, and the control pass into very different hands. Then underwriters accepting insurances on the hulls of vessels must consider whether repairs during the period of insurance are likely to be expensive or cheap, great variation from time to time taking place in the cost of labour, materials, docking, etc.

With cargo insurance the underwriter has first to consider the conditions on which the cargo is to be insured. the two main methods being (1) free of

particular average (f.p.a.), and (2) to pay average. Under free of particular average conditions an underwriter does not pay damage that may occur to the cargo unless the vessel is stranded, sunk, burnt, on fire, or in collision, the collision to be of such a nature as may reasonably be supposed to have caused or have led to the damage claimed for. Under "with average" conditions an underwriter has to pay all damage that may be caused by ordinary marine perils. It is of course obvious that articles of a specially fragile nature, or that are specially liable to sea water damage can only be insured on f.p.a. terms. The nature of the cargo is a very much more important matter where a vessel is loading a full cargo of one kind than where she is loading a general cargo on the berth. For instance, if a vessel is loading a coal cargo, much depends upon the nature of the coal, some coals being much more liable to spontaneous combustion than others, north country coal on the whole being of a softer nature than Welsh, but even then there are many subdivisions. Although Welsh coal on the whole is not nearly so liable to spontaneous combustion as northern, several sorts of Welsh coal have turned out to be very inflammable. Some cargoes are also very much easier to carry than others. For instance, a cargo of cotton is more buoyant and an easier cargo than one of iron ore or slates or phosphate. Having considered the nature of the cargo the underwriter must consider the vessel, her age, whether she is well built and well owned, and what weather she is likely to meet on the proposed voyage. This latter point of course is not of so much importance where large and powerful steamers are employed, but where the type is small or sailing vessels are concerned, it is a very important factor. The underwriter then determines at what rate he will accept the risk and this, again, is principally where training and judgment come in. Conditions are always varying, and no underwriter has ever lived long enough to know for an absolute certainty what premium will pay on any particular voyage, but after some years, underwriting becomes almost an instinct, and if an entirely novel risk is in the market, it is remarkable how nearly the best authorities will quote the same premium.

There still is, and always has been, an excellent opening in the underwriting world, for any man who makes up his mind really to work hard and study.

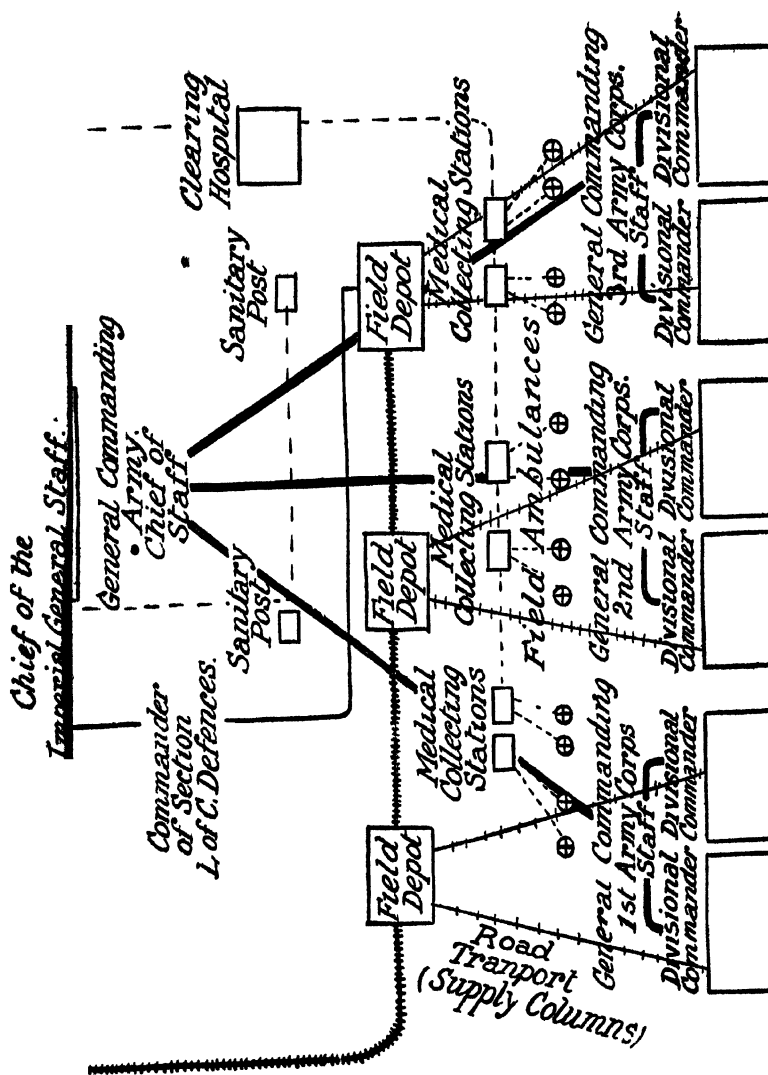
How the British Army is Organized for War

By HENRY NEVILLE



THE successful issue of military operations depends mainly upon combination and unity of effort directed with energy towards the definite object of defeating the mobile forces of the enemy. To obtain this unity of effort there must first be unity of control, and to ensure this, supreme authority, as regards the theatre of the war, is vested in one man—the Commander-in-Chief, who is responsible only to the Chief of the Imperial General staff; the latter is, in turn, responsible to his Majesty's Government in the person of the Secretary of State for War for the plan of operations upon which the Commander-in-Chief works. The aim of war organization is to ensure this unity of control by the sub-division of labour and the decentralization of responsibility amongst subordinates. With a view, therefore, to the attainment of the maximum efficiency in their respective rôles military forces are primarily divided into two categories. These are:—(1) Fighting forces. (2) Administrative services.

Briefly, the command of military forces is exercised in the following way: The Commander-in-Chief, through the medium of his staff, exerts his authority over a limited number of subordinate commanders who, in turn, through their staffs, convey his instructions to subordinate commanders under them, each of whom carries it still further down until eventually all ranks are controlled by it. This system applies equally to all the services and departments of the administrative branch and the fighting forces. The chief administrative branches of the army are those controlled by the Quartermaster-General and the Adjutant-General. These branches are divided into a number of departments, each controlled by a Director who advises upon all technical questions and receives his instructions from the Commander-in-Chief through the medium of the latter's



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staff; these Directors are represented in subordinate commands by assistants who are located according to the directions of the Commander-in-Chief. The most important of these Departmental Directors are: The Director of Supplies, the Director of Ordnance Services, Director of Transport, Director of Railway Transport, Director of Works, Director of Remounts, Director of Veterinary Services, Director of Postal Services and the Paymaster-in-Chief, all forming part of the Quartermaster-General's branch, and the Director of Medical Services, the Deputy Judge Advocate General and the Principal Chaplain whose departments come under the rule of the Adjutant-General. Their duties are explained by their titles except in the case of the Deputy Judge Advocate General whose function it is to advise a commander upon all matters of military, civil, or international law.

The fighting forces are divided into two branches:—

- 1. Troops whose duties are purely defensive in character, such as guarding and maintaining the lines of communication.
- 2. Those mobile field units which constitute the offensive weapon in the hands of the commander-in-chief who decides the relative proportion of these two parts.

The basis of the mobile field army is the division, a formation comprising all arms and services in due proportion and equipped with every requisite for independent action—a complete army in itself.

These divisions which, for purposes of control are divided into brigades, regiments, battalions, companies, platoons and sections, are grouped into army corps and again into armies, each under a separate commander, but all under the supreme command of the Commander-in-Chief. The forces employed on the lines of communication are sub-divided into:—(1) Defence. (2) Administration and traffic under two officers, known respectively as the Commander of Lines of Communications Defences and the Inspector-General of Communications; both are responsible to the Commander-in-Chief, the one for the tactical security of the lines of communication and for the military government of that portion of the lines of communication which are under martial law, and the other for the control and co-ordination of all traffic and transport. The position of Inspector-General of Com-

munications, or the "I.G.C." as he is more generally known, is a very onerous one for he is responsible for the forwarding to the field units of reinforcements, supplies and stores. In his work he is assisted by officers bearing the title of Administrative Commandants who transmit his orders as to the movement of personnel, animals, material, mails, etc., to the commanders of units or to representatives of the administrative departments. To each of these commandants is allotted a section of the line of communications, each commandant being responsible to the Inspector-General of Communications for the discipline, sanitation, and policing of the area within the boundaries of the section allotted.

Of these areas the most important is the base through which all personnel and supplies must pass to and from the fighting area. It is here that the most important supply depots are located and the reserves for the supplies of the other depots accumulated. In the present case, as in all oversea campaigns, a sea-base is used and it is necessary to have an officer whose sole duty it is to supervise the embarkation and disembarkation of all the men and material necessary to the conduct of the campaign. This officer bears the title of the Military Landing Officer and he is assisted by the Base Commandant, who, it will be remembered, is responsible to the Inspector-General of Communications; in carrying out his duties he is brought in close touch with the Director of Sea Transport who, on behalf of the Admiralty, controls all arrangements for the provision of oversea transport. All details of embarkation and landing are arranged by the Military Landing Officer in consultation with this officer and the Base Commandant.

The Commander-in-Chief's orders are conveyed to the various departments and services under him through the channel of his staff which is organized thus:

The General Staff Branch.

The Adjutant-General's Branch.

The Quartermaster-General's Branch.

These officers are vested with no military command, but they assist the Commander-in-Chief in the supervision and control of the operations, transmitting his orders and seeing that they are duly carried out by the department in question. Of these staff officers the most important is the Chief of the General Staff who is the representative of the Commander-in-Chief and the

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instrument through which he exercises his functions of command. The general staff under this officer works out all details and drafts all orders in connection with the military operations in the field, the selection of the lines of operation, field intercommunications, censorship over communications, acquisition of information about the enemy, allotment of forces to the various areas and the preparation of reports and despatches relating to these matters. It is also his duty to keep the Adjutant-General's staff and the Quartermaster-General's staff advised as to the possible requirements of the troops. The duties of the Adjutant-General's branch of the staff are many and varied, but are mainly concerned with the administration of martial law, sanitation, disposal of the dead, invaliding of the wounded and the reporting of casualties.

The Quartermaster-General's branch of the staff attends to all the creature comforts of the army, such as to matters of food supplies, clothing, ammunition, all equipment except medical and surgical—which comes under the scope of the Adjutant-General's branch—land and sea transport, remounts, veterinary, service, postal service, etc. The Quartermaster-General's branch may be described as the "mother" of the fighting man; it darns his clothes and fills his stomach, whilst the Adjutant-General's branch represents a sterner personality, a combination of doctor and schoolmaster, who physics him when he is sick and punishes him when he is disobedient.

The three branches of the Commander-in-Chief's staff just described are duplicated at the headquarters of all the larger units in the field. It is not possible to enter into the departmental sub-divisions by which the various commands of the branches are put into operation, but some idea of the system can be conveyed by taking such important examples as the supply, transport and postal service, administered by the Quartermaster-General and the medical service administered by the Adjutant-General. In France the subsistence of the army is largely provided for by billeting, a plan that conduces both to the mobility of the army and the comfort of the soldier, but this method has to be largely supplemented by a regular service of supplies from the base. This is provided for by establishing at the base and at intervals along the lines of communications supply depots which are known, according to their capacity and situa

tion, as base supply depots, main supply depots and field depots. The base supply depot, as its description implies, is located at the base of operations, and all other depots are replenished from here. Main supply depots are situated at an advance base or at any convenient position on the lines of communication; here they maintain a prescribed stock which they receive from the base at frequent intervals. Depots are small temporary establishments in the immediate neighbourhood of the troops from which supplies are issued direct to units in the field; at these field depots supplies are received daily from the main supply depots and are collected by the mechanical transport, or divisional train as it is called, which is attached to every division. If the army advances these depots are enlarged and are promoted to the rank of permanent depots.

The same method of sub-division may be given in regard to the system of transport which comprises three branches:—Railway transport, road transport and inland water transport.

The first form of transport is the most important and is used for the conveyance of troops and supplies from the base to the railheads; it is, however, rarely employed for short distances as it has been found that for any distance under sixty miles it is quicker to move a large unit such as a division by marching than by rail. Road transport is divided into three classes:—

1. "Parks" and columns working between railheads and the field force, which form the link between the railway and the transport wagons of the units composing the field force.
2. Transport to supplement the railway which works between the base and the railheads or along such portions of the railway line as may be decided necessary.
3. Transport at the base or any of the posts on the lines of communication.

In France, which is well-equipped with canals and navigable rivers, water transport is used to a considerable extent for the conveyance of heavy and bulky stores such as hay, straw, timber, building material, etc. In addition to these classes of transport there is also the transport of the field units which is, in turn, divided into two classes:—

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- A. The transport of the fighting units for the carriage of everything relating to the military operations of the different arms.
- B. The transport of the administrative units consisting of field ambulances, and Army Service Corps wagons.

Still another sub-division occurs in the transport of the fighting units which is made up of:—

- C. First line transport such as gun carriages, ammunition wagons, water carts, kitchens, tool carts, etc., used for the conveyance of material actually used in action.
- D. Trains for the conveyance of baggage, stores and such supplies that do not directly contribute to the actual fighting resources of the force. The first class of transport is actually used in the firing line, the other is kept outside the fighting area.

The medical service of the forces in the field has four distinct functions:—the preservation of the health of the troops, the care and treatment of the sick and wounded, the replenishment of medical and surgical equipment and the collection and return of sick and wounded from the theatre of war, the whole being controlled by the medical director who, in turn, is answerable to the adjutant-general's branch of the staff. These functions we may describe under two headings:—(1) Sanitary service and (2) Sick and wounded service.

The first comprises two branches:—

- A. The regimental sanitary detachment with which every unit is provided under the direction of its medical officer of the unit.
- B. The sanitary organization on the lines of communication:

The first of these—the regimental organization—is again divided into two sections:—

- C. That which supervises the drinking supply, purifies it for drinking purposes and takes charge of all apparatus and stores connected with this work and
- D. That which prepares the sanitary accommodation of the unit, destroys refuse, directs the construction of washing places and generally prevents pollution of the soil.

The second—that which deals with sanitation on the lines of communication—is organized on a wider basis and comprises sanitary offices, sections and squads. For sanitary purposes the lines of communication are divided into districts and posts and a specialist sanitary officer is appointed to each district in command of a sanitary section. In a district there may be several sanitary posts to each of which a sanitary squad is attached. The duty of these units is to exercise sanitary supervision over the water supplies and to act as sanitary police.

The organization for collecting the sick and wounded is in three zones:—(1) The collecting zone occupied by the field units; (2) The evacuating zone; (3) The distributing zone. The medical service is distributed:—

In the collecting zone:—The medical establishments with the units, represented by the medical officer attached to a cavalry regiment, artillery, brigade, or infantry battalion and his assistants, and the field ambulances and cavalry field ambulances attached to brigades and larger units. These services collect and bring the wounded first to an advanced dressing station and secondly, after they have received attention, to a collecting station.

In the evacuation zone:—Clearing hospitals on the lines of communication intended for the temporary care of sick and wounded and ambulance trains, consisting of mechanical road transport, by means of which the patients are passed on to a stationary hospital.

In the distributing zone:—Stationary hospitals located on the lines of communication at advanced bases, general hospitals situated at the base, used mainly for cases where recovery is likely to occupy some time, and convalescent depots which relieve pressure on the hospitals by receiving patients who are out of danger. In this zone can also be included the hospital ships which form the link between the base and the military and civil hospitals outside the theatre of operations.

The few instances selected show not only the immense amount of labour and detail that is involved by the maintenance of an army but also illustrate the system of progressive delegation by which the Commander-in-Chief's instructions are carried out.

Woman's Sphere

BY LADY ST. HELIER



TO those of us who only a few years ago watched with deep anxiety and apprehension the direction in which the ambitions and desires of such a large number of English women were diverging, the change of the last year is thankfully welcomed. The unrest, the discontent, has passed and in its place has arisen a spirit of steadfastness and devotion characteristic of the highest standard of women's ambitions. Those who have watched and contrasted the processions of women deputations to the Government then and now, must, even amid the shadows and sorrows of to-day, have felt thankful that in the supremest moment in the history of their country the women of England are displaying the qualities and virtues on which the foundations of our national life have grown and flourished.

Yet the processions of women advocating the organization of women's industry and appealing for Universal Service, important as they are, are far less important or far-reaching than the service which is less publicly known and accepted. Women's work on the Press and platform is only an indication, and not a very important one, of what they are doing silently and unobtrusively on every side. The work which must appeal to us most strongly is what they are doing in their own houses in the commonplace everyday life of the ordinary wife and mother, who, without any complaint, many with gladness and pride, have faced the probability of poverty and bereavement in sending their men to the front. The men have the excitement and adventure, but the wives, and especially in certain classes, have had to lower at once the standard of living and face the terrible catastrophe which overwhelms them when the husband is maimed or killed. In endless cases this entails the breaking up of the home, the dispersing of the family, and in that hour of deep bereavement the mother is deprived of the one consolation left to her—the society of her children, and she finds what recompense she can in her loyalty and patriotism. A man's motives

for going to war are more mixed than the woman's in putting no difficulties in his way; she has only one, and her duty and self-sacrifice are the most beautiful and purest gifts that the women of England have ever laid at their country's feet.

There are two classes of women in England with distinct duties and employments and it is very significant that they have both naturally and quickly fallen into the places in which they are urgently required. There is the woman with a family, and there are the many who, until the war broke out, were often at a "loose end" to find an outlet for the inherent longing in every woman's nature to take her part in helping her country and in getting something to do to fulfil the unsatisfied desire for the completion of her mission in the world. To the first class her work lay at hand, her duty was obvious, none the less exalted because in the practical work of the home there was less excitement, less enthusiasm than in embarking on a career of greater novelty with the unknown possibilities of expansion that such an enterprise offered whether their men be at home or away. It is the first duty of the woman to look to the ordering of her house, with the immediate task of doing so economically. The Press and nearly every public speaker now take as their text the absolute need for thrift and the husbanding of all resources, and it is in that obvious direction the first duty of the English housewife lies.

The cry of the expert is always in our ears and we recognise to the full that, if we are to come victoriously out of this war with our credit unimpaired, we must spend warily and carefully. On the extent to which women show that they are alive to this point and also that they possess the ability to grapple with it, must largely depend our financial future. We have had information from high authorities on the larger and apparently more immediate questions of finance and on the lines on which it should be carried out, but practical management and thrift must do the rest.

This is a task of great responsibility and difficulty and the trend of education for women has not been in the direction of teaching domestic economy from a practical point of view. It has been the fashion to regard household economy as a very simple and homely matter and the ignorance of the young married women

in England is a byword. Even those who are good managers have been very apt to underrate its importance and in the upper classes the servants' influence is in direct conflict with attempts at carefulness and economy. Many women deplore that they are not sufficiently able to help in the war work, but let them console themselves with the reflection that the experience and training of their lives in the many small problems which are arising every day, and will increase, as to the adjustment of ways and means is far more important in their own house than any of the apparently more heroic work done by women who have not the capacity nor the necessity for applying the most valuable knowledge a woman can possess to the pressing claims of their everyday life. In considering and estimating the value of women's work during the war it is essential to think of the thousands of households where watchful foresight and careful management are making the best of things and enabling the wheels of life to run with the least friction and discomfort. The greatest credit is due to all those women who have steadily refused to be decoyed into other occupations by the enthusiasm of their friends working in other fields. Every woman can learn to wash dishes in a hospital ward, can collect tickets and find endless outlets for unskilled work, but the good practical housekeeper is the result of many years of personal training often under severe conditions; she is not produced in a month, or two.

For the women who have no home responsibilities the field is organized and special work is unlimited, and the best and finest is done in connection with nursing and the work of the Red Cross Society. From the fully-trained nurses serving at the front and at home, working to the utmost limit of their strength, as well as the local workers in the Voluntary Aid Detachments, every place is filled with a magnificent self-sacrifice and devotion. Hospital work and its drudgery is one of which many women soon tire, the amateur does no long service in its ranks. The monotony, hardships, sights and sounds connected with nursing the wounded are most trying, heartrending work, especially to those who have had no training or necessity to face such service till they joined the ranks of the nursing profession. It is one which only those women of strong nerves and fibre and keen devotion can continue indefinitely; but

it is a great tribute to the courage of the women in Great Britain to see those of every class, high and low, striving to show by their personal service the depth of feeling which the war has evoked. Nothing is more eloquent of this than the sight of the girls whose sheltered lives and position a year ago made their existence to the outside observer one of pleasure, ease and luxury, now performing the hardest and most menial work in hospitals all over England, only too proud and thankful to be allowed to take their places among those who esteem it their greatest privilege to minister to the men who have fought and died for England.

Any account of women's work would be most incomplete if the general organization under the head of war work were omitted. The quiet gravity with which women have trained for munition and agricultural work, for filling the place of men required for the war and have stepped into every available vacancy has been the more remarkable as probably few of them had any experience of their new occupation before they took it up. In the early stages of the war the marks of committees loomed largely in women's organizations, and there are still organizations in being and to come, but they have lost their significance and power in the rapid and dignified enrolment of the new women workers. In August 1915, statistics showed that in banks, Government offices, hospitals, schools, the railway services and other directions, 100,000 women were doing work hitherto done by men. At a National Service meeting in September, a message from Mr. Lloyd George said that 20,000 more women were employed in large firms in the metal trades alone than a year previously.

Of the effect the war is having on the spiritual side of women's character very little has hitherto been said because it touches chords strained almost to breaking, and the darkened homes, the empty places, the memory of dear voices now silent, the tender memories of the loved ones gone for ever are too sacred for words, too hallowed, too precious for expression. The terrible realities of war and its sufferings have undoubtedly re-awakened the spiritual side of the nature of the women of England.

The cause of justice, mercy and liberty, so dear to every Englishman and woman, has been worth the terrible sacrifice it has cost, and that conviction has

nerved women for the work thrown on them. Who can fail to realise that the magnitude of the struggle, the overwhelming issues at stake, and the courage of the beloved ones dying for the cause has raised the whole aspect of the war and made it a Crusade, a holy war, a war in which the ever poignant, undying grief loses some of its agony in the mightiness of the issues that are at stake? The frivolities, the extravagance, the follies which were beginning to dwarf our moral sense, to lower the standard of our life, the luxury which was enervating and undermining the qualities which had raised up our great Empire and which were destroying our ideals were injuring no class more severely than our women. To-day all this has disappeared and out of the furnace of pain, sorrow, bereavement and anxiety, the women of England have emerged strengthened, purified and sanctified by their sacrifices, and the knowledge of where the path of duty lies, increasing their determination, for the sake of the loved ones who have given their lives for their country, to follow their example of duty and service. The stern realities of life have brought them nearer to the invisible Presence and face to face with the God of Battles. It is not despair, uncertainty, or the agony of sorrow only that has inspired them, but the hope which is in every heart that out of all the darkness and uncertainty of to-day the country may emerge greater and stronger with higher ambitions and ideals. It is women who give the tone to life and conduct and they are setting a magnificent example to-day. No words more truly describe what they are doing than the conclusion of the Archbishop of Canterbury's sermon in St. Paul's Cathedral on Intercession Day:

"To our common life at this grave hour the women of the Empire are contributing a service which manhood cannot rival. The tender and resourceful sympathy which is brightening hospital and home does not stop there, it gives itself among other things to 'recreating' in a very true sense the lives of countless men who would do badly without such aid. Above all, from English womanhood in our homes we have learnt these great new lessons of the uplifting power of Christian faith and courage and endurance in face of such sorrow and strain as can hardly be expressed in words."

China and Japan



ONE result of the occupation of Kiao-chow by the Japanese in November 1914, was a crisis in the relations of Japan and China. On January 18th, 1915, the Japanese Minister in Peking handed the Chinese President a document containing twenty-one demands. Summarised, China was to agree (1) to whatever arrangements Japan might make with Germany as to the province of Shantung, (2) to lease or cede no territory in Shantung to a third power, (3) to grant Japan facilities for building railways from Korea to Shantung, (4) to open certain cities and ports in the province to commerce, (5) to extend the Japanese lease of Port Arthur, the South Manchurian and Antung-Mukden railways to 99 years, (6) to refuse to cede or lease any harbour, bay or island along the coast of China to a third party, (7) to make the great Hanyehping Mining Company a joint Sino-Japanese concern, (8) to consult Japan first if foreign capital were needed for mines, railways and public works in the Province of Fukien, and (9) the Chinese Government was to employ influential Japanese advisers in political, financial and military matters. China with reluctance agreed to such of these demands as she considered did not involve her surrender of her position as a sovereign power nor conflict with treaty engagements. After three months' negotiations Japan revised her demands and added to them in certain particulars. The Chinese protest and virtual refusal to go further was handed to Japan, on May 1st and on May 7th Japan issued an ultimatum giving China till 6 p.m. on the 9th to accept or take the consequences. On the 8th the Chinese Government surrendered.

Japan's action throughout has been sharply criticised alike in America, in the Far East and in Europe: it has been described as a flagrant breach of her treaty engagements and as taking advantage of the great conflict in Europe to violate her undertaking to preserve the open door in China. In effect it has been said that Japan aimed at seizing a favourable oppor-

tunity to attempt to make China her vassal. Much has been made of the fact that Japan undertook to hand Kiao-Chau back to China after the war. Japan in her explanatory memorandum of May 7th specifically states that if China accepts her demands her offer to restore Kiao-Chau still holds good. That Japan's insistence on clearing up questions at issue with China should have created some uneasiness was natural, but responsible official utterances lend no sort of colour to the suggestion that Japan has not been wholly loyal to all her engagements. Mr. Pearce, the Australian Minister of Defence, in June specially acknowledged Australia's debt to her: "All the undertakings had been kept, both in the spirit and the letter, which were in the strap of paper which formed the basis of the friendship between Great Britain and Japan." Equally significant was the reference to Japan made by M. Sazonoff, the Russian Foreign Minister, on August 1st:—

•The ten years which have gone by since the Treaty of Portsmouth have proved that a peaceful neighbourliness between Russia and Japan is perfectly possible and reciprocally advantageous. Our relations of alliance with Japan to-day should be the forerunners of a still closer alliance. The operations of the Japanese Army against the German fortress of Tsing Tao resulted in the passing of that place, as well as of the leased territory of Kiao-Chau, out of German hands. This fact opened the way for *pourparlers* between the Chinese and Japanese Governments, which led to an agreement establishing the special rights of Japan in those parts of China where Japanese interests are centred. Our friendly relations with Japan and China provided us with the assurance that these negotiations would in no way compromise Russian interests, and enabled us to follow their course with complete calm, even in their most critical stages. Japan and China appreciated our attitude very highly. The same relations of confidence with the Chinese Government enabled us to arrive at a definite agreement on the question of Outer Mongolia. At Kiakhta, on June 7, an agreement was signed, the text of which will be published at an early date. By reason of this agreement, Outer Mongolia is recognised as an independent State under Chinese suzerainty; the Mongols of Outer Mongolia acquire the right of self-government; Inner Mongolia received liberty of action in questions of commerce and industry, even to the right of "concluding international agreements on these questions." Only in the domain of foreign politics is the independence of Mongolia limited by the right of China or Russia to intervene.

THE COALITION CABINET (Formed May 25th, 1915)						THE LATE LIBERAL CABINET	
Prime Minister and First Lord of the Treasury	... ..	Rt. Hon. H. H. ASQUITH, M.P.	... ..	...	...	...	...
Minister without Portfolio	... ..	Rt. Hon. MARQUESS OF LANSDOWNE, K.G.	...	...	...	...	Mr. ASQUITH
Lord President of the Council	... ..	Rt. Hon. MARQUESS OF CREWE, K.G.	...	...	...	...	EARL BRAUCHAMP
Lord Chancellor	... ..	Rt. Hon. LORD BUCKMASTER OF CHEDDINGTON	...	...	...	...	VISCOUNT HALDAKE
SECRETARIES OF STATE :—							
Home Department	... ..	Rt. Hon. SIR JOHN A. SIMON, K.C., M.P.	...	...	...	...	MR. McKENNA
Foreign Affairs	... ..	Rt. Hon. SIR EDWARD GREY, M.P., K.G.	...	...	...	...	SIR EDWARD GREY
Colonial Office	... ..	Rt. Hon. A. BONAR LAW, M.P.	...	...	...	...	MR. LEWIS HARCOURT
War Office "	... ..	Rt. Hon. EARL KITCHENER, K.G.	...	...	...	...	LORD KITCHENER
India Office	... ..	Rt. Hon. J. A. CHAMBERLAIN, M.P.	...	...	...	...	... LORD CREWE
Minister of Munitions	... ..	Rt. Hon. DAVID LLOYD GEORGE, M.P.	...	...	...	...	MR. LLOYD GEORGE
Chancellor of the Exchequer	... ..	Rt. Hon. REGINALD McKENNA, M.P.	...	...	...	...	MR. W. S. CHURCHILL
First Lord of the Admiralty	... ..	Rt. Hon. ARTHUR J. BALFOUR, M.P.	...	...	...	...	MR. J. A. PEASE
President of the Board of Education	... ..	Rt. Hon. ARTHUR HENDERSON, M.P.	...	...	...	...	... MR. BIRRELL
Chief Secretary for Ireland	... ..	Rt. Hon. AUGUSTINE BIRRELL, M.P.	...	...	...	...	... LORD CREWE
Lord Privy Seal	... ..	Rt. Hon. EARL CURZON	... ..	...	...	...	MR. McKINNON WOOD
Secretary for Scotland	... ..	Rt. Hon. T. McKINNON WOOD, M.P.	...	...	...	...	MR. RUNCIMAN
President of the Board of Trade	... ..	Rt. Hon. WALTER RUNCIMAN, M.P.	...	...	...	...	MR. HERBERT SAMUEL
President Local Government Board	... ..	Rt. Hon. WALTER H. LOÜG, M.P.	...	...	...	...	... LORD LUCAS
President of the Board of Agriculture	... ..	Rt. Hon. EARL OF SELBORNE, K.G.	...	...	...	...	MR. C. F. G. MASTERMAN
Chancellor of Duchy of Lancaster	... ..	Rt. Hon. WINSTON S. CHURCHILL, M.P.	...	...	...	...	LORD ENNEMOTT
First Commissioner of Works	... ..	Rt. Hon. LEWIS HARCOURT, M.P.	...	...	...	...	SIR J. A. SIMON
Attorney-General	... ..	Rt. Hon. SIR EDWARD CARSON, K.C., M.P.	...	...	...	...

NOT IN THE CABINET

[illegible]

***Returned to military duty September.**

†The Postmaster-General was in the late, but is not in the Coalition Cabinet,

The Countries of the World



The British Empire

THE population of the Empire of King George V. (*q.v.* "Who's Who in the Great War") is in round figures 417,000,000. Area about 11,500,000 sq. m.

Great Britain

ENGLAND. Pop., 1911 census, 34,015,290. Area 50,900 sq. m. Imports, U.K. from Colonies, £236,000,000. Exports, U.K. to Colonies, £218,267,000. Trade with foreign countries: British Empire, imports £822,957,000, exports £669,160,000. National debt (1914) £674,575,000 (net).

SCOTLAND. Pop. 4,759,445. Area 29,794 square miles.

IRELAND. Pop. 4,390,219. Area 32,560 square miles.

WALES. Pop. 2,025,202. Area 7,376 square miles.

ISLE OF MAN. Administered under own laws by Governor, Lord Raglan (b. 1857) and Council. Pop. 52,000. Area 220 square miles. Agriculture, mining, fishing chief industries.

CHANNEL ISLANDS. Administered under their own laws. Lieut.-Governor of Jersey, Maj.-Gen. Sir A. N. Rochefort; of Guernsey, Alderney and Sark, Gen. Sir R. C. Hart. Pop. (1911) 96,900. Area about 76 sq. m. Public debt (1911) £214,100.

Aden

Resident Governor, Major-Gen. Sir James A. Bell (b. 1856). Under the Presidency of Bombay. Pop. 46,000. Area 75 sq. m. Imports £480,000. Exports £309,000 to the U.K. Socotra, Island Dependency of Aden (area 1,882

sq. m.) has a pop. of 12,000, chiefly of Arab origin. The small island of Perim is a coaling station for merchant ships. Aden is a fortified station and a coaling depot for the Navy.

Africa

BASUTOLAND. Governed by native Chief and Resident Commissioner, Sir H. C. Stoley (b. 1855). Pop. 406,000, about 1,400 being white. Area 11,700 square miles. Revenue £161,400. Expenditure £203,400 (1913).

BECHUANALAND. Protectorate. Governed by tribal Chiefs and Resident Commissioner, Lieut.-Col. F. W. Panzera. Pop. 126,000, about 1,700 being white. Area about 275,000 sq. m. Revenue £65,000. Expenditure £66,700 (1913).

BRITISH EAST AFRICA. Protectorate, including Zanzibar and Pemba Islands. Governor, Sir H. C. Belfield (b. 1855). Pop. (estimated) 4,038,000. Area 246,822 sq. m. Capital, Nairobi. Revenue £1,123,700. Public debt £625,000. Big-game hunting district; cotton, hides, seeds, ivory, chief products. Zanzibar ruled by Sultan and British Resident. Area 649 square miles. Pop. with Pemba 197,000. Debt £100,000. Supplies the world with cloves. Imports (1913) £1,108,000. Exports £1,048,000.

The Countries of the World

EGYPT, British Protectorate, declared December, 1914. Sultan, Prince Hussein (b. 1854). Pop. about 11,280,000. Area about 860,000 sq. m. of which only 18,000 are cultivated and settled. Imports £E27,865,000. Exports £E81,662,000. Debt £E94,202,000. Chief occupation agriculture.

GAMBIA. Governor, E. J. Cameron. Pop. about 188,000. Area 4,500 sq. m. Imports £1,091,000. Exports £867,000. No public debt.

GOLD COAST and Protectorate. Governor, Sir H. C. Clifford. Pop., including Ashanti and northern adjacent territories under British protection added to Gold Coast in 1901, about 1,503,000, 1,700 being Europeans. Total area about 80,000 sq. m. Imports £4,953,000. Exports £5,500,000 of which £1,625,000 gold. Debt £2,449,000 (1913).

NIGERIA, including LAGOS, Colony and Protectorate. Governor-General, Sir Frederick Lugard. Pop. about 17,000,000. Area about 386,000 sq. m. Imports £7,200,000. Exports £7,850,000. Products: rubber, cotton, palm-oil, tin, etc. Debt £8,267,500.

NYASALAND. Protectorate. Governor, Sir George Smith (b. 1858). Pop. about 1,061,000, only 800 being Europeans. Area 89,300 square miles. Imports £208,700. Exports £266,000 (1913-14). Tobacco, coffee, cotton, rubber.

RHODESIA. Administered by the British South Africa Company under Royal Charter. Administrators: N. Rhodesia, L. A. Wallace; S. Rhodesia, F. D. Chaplin. Resident Commissioner, H. Stanley. Pop. 1,619,000, about 32,000 Europeans. Area about 488,500 square miles. Imports about £2,980,000. Exports about £2,358,000 of which gold amounted to over two millions.

SIERRA LEONE and Protectorate. Governor, Sir E. M. Merewether. Pop., including Protectorate of adjoining territories added to Sierra Leone in 1913, 1,403,000 (approx.) about 1,000 being whites.

Total area, 81,000 sq. m. Imports £1,750,000. Exports £1,730,000. Debt £1,295,600 (1913). Cultivation of the palm chief industry.

SOMALILAND. Protectorate. Commissioner, G. F. Archer. Pop. 310,000, chiefly native tribes. Area about 68,000 square miles. Imports about £238,000. Exports £216,000.

SOUDAN. Chiefly British Protectorate. Governor-General, Sir Reginald Wingate, Sirdar of Egyptian Army (b. 1861). Pop. supposed to be about 3,000,000. Area 984,000 sq. m. Imports £E2,109,000. Exports £E1,185,000. Gum, ivory, cotton and rubber.

SWAZILAND. Under native Chiefs and Resident Commissioner, R. T. Coryndon. Pop. about 100,000, 1,000 whites. Area 6,500 sq. m. Revenue £64,200. Expenditure £64,000.

TRISTAN D'ACUNHA. Small group of islands in South Atlantic Ocean. Population 100.

UGANDA. British Protectorate. Governor, Sir F. J. Jackson (b. 1860). Pop. (1914) 2,909,000 only about 1,000 being Europeans. Area 121,437 sq. m., 16,370 being water, the Nile and its great lakes occupying a part of this territory. Imports £1,021,000. Exports £607,000. Coffee, ivory, cotton, skins chief products. Debt £295,000.

Ascension Island

Controlled by the Admiralty. Commandant, Capt. H. C. Benett. Pop. about 200. Area 84 sq. m. Telegraph Cable Station.

Australia

Commonwealth, consisting of States of New South Wales, Victoria, Queensland, Tasmania, S. Australia and W. Australia, under Governor-General (representing the King) Parliament of two Houses and Executive Council. Governor-General, Sir R. C. Munro-Ferguson. Prime

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Minister, Rt. Hon. Andrew Fisher. Total pop. estimated at 4,920,000. Area 2,974,600 sq. m. Imports £74,000,000. Exports £87,500,000. Net debt £271,000,000. Has adopted system of short compulsory military training. Australia has small local Navy and one of her cruisers, the *Sydney*, sank the *Emden*.

NEW SOUTH WALES. Governor, Sir G. Strickland. Pop. (estimated) 1,855,000. Area 810,000 sq. m. Gold-mining, agriculture and sheep-farming. Capital, Sydney.

NORTHERN TERRITORY. Administrator, Dr. J. Gilruth. Pop. (with aborigines estimated at 20,000) about 23,500. Area 523,600 sq. m. Undeveloped country. Sheep and cattle-raising is carried on. Capital, Darwin.

QUEENSLAND. Governor, Major Sir H. J. Goold-Adams. Pop. (estimated) 670,000. Area 670,500 sq. m. Mining, wheat-growing and the frozen meat trade chief industries. Capital, Brisbane.

SOUTH AUSTRALIA. Governor, Sir H. L. Galway. Population (estimated) 440,000. Area 380,000 sq. m. Copper-mining, wheat-growing, fruit-culture chief industries. Capital, Adelaide.

TASMANIA. Governor, Sir W. E. Macartney. Pop. about 200,000. Area, with adjacent islands, 26,215 sq. m. Tin-mining, wheat and fruit-growing. Capital, Hobart.

VICTORIA. Governor, Sir A. L. Stanley. Population (estimated) 1,375,000 (over 6,000 Chinese). Area 87,884 square miles. Gold, wheat, wool, butter chief products. Capital, Melbourne.

WESTERN AUSTRALIA. Governor, Maj.-Gen. Sir H. Barron. Pop. (estimated) 325,000. Area 975,920 square miles. Grain-growing, timber-working, mining chief occupations. Capital, Perth.

at Bushire. Pop. about 100,000, chiefly engaged in pearl fisheries. Large trade with Arabia. Imports and exports about £2,250,000. Pearls valued at nearly a million and a half exported in 1913-14.

British North Borneo

Protectorate, administered by Governor and Residents under the B.N.B. Company. Chairman of Directors, Sir J. W. Ridgeway (b. 1844). Governor, C. W. Parr. Pop. 208,000 (approx.). Area 31,100 sq. m. Imports and Exports about £650,000. Principal products rubber, tobacco, timber, cotton. No public debt.

Brunei (Borneo)

Protectorate, ruled by a Sultan. Administered by a British Resident, C. Codrington. Pop. 80,000. Area 4,000 sq. m. Revenue 1913, £21,000. Governor of the Straits Settlements is High Commissioner.

Canada

Dominion. Gov.-Gen. and C.-in-Chief, F.-M. H.R.H. the Duke of Connaught. Largest of all the British possessions, with Parliament and Legislature modelled upon those of England. Premier, Sir Robert L. Borden. Population 7,206,600 (1911). Area 3,749,600 sq. m., 125,700 being water. Imports £185,960,000. Exports £86,317,900 (1913). Public debt (net) £77,442,000 (1914). Wheat-growing, general farming, and ranching chief industries. Capital, Ottawa.

ALBERTA. Lt.-Governor, Hon. G. V. Bulyea. Pop. 540,000. Area 253,000 sq. m. Agriculture chief industry. Capital, Edmonton.

BRITISH COLUMBIA. Lt.-Governor, Hon. F. S. Barnard. Pop. estimated at 440,000. Area 395,610 sq. m. Fruit-growing, mining, and the lumber trade. Capital, Victoria (Vancouver).

Bahrein Islands (Persian Gulf)

Under British protection, with a ruling Chief. Resident, Major S. G. Knox (b. 1869), stationed

The Countries of the World

MANITOBA. Lt.-Governor, Hon. Sir Douglas Cameron. Pop. 455,614. Area 251,380 sq. m. (nearly 20,000 sq. m. water). Dairy-farming and agriculture. Capital, Winnipeg.

NEW BRUNSWICK. Lt.-Governor, Hon. J. Wood. Pop. 351,890. Area 27,980 sq. m. Manufacturing, agriculture and mining. Capital, Fredericton. Largest town, St. John's.

NORTH-WEST TERRITORIES. Commissioner, Lt.-Col. F. White. Pop. about 18,000. Area 1,212,200 sq. m. (over 84,000 water). Agriculture chief occupation.

NOVA SCOTIA. Lt.-Governor, Hon. J. D. McGregor. Pop. 492,838. Area 21,428 sq. m. Chief industries, fishing, agriculture. Capital, Halifax.

ONTARIO. Lt.-Governor, Hon. J. S. Hendrie. Pop. 2,523,250. Area 407,262 sq. m. Chief industries, mining and the timber trade. Capital, Toronto.

PRINCE EDWARD ISLAND. Lt.-Governor, Hon. B. Rogers. Pop. 93,800. Area 2,184 sq. m. Fox-breeding, agriculture and fishing chief industries. Capital, Charlottetown.

QUEBEC. Lt.-Governor, Sir F. Langelier. Pop. 2,002,700. Area 706,830 sq. m. Manufacturing and agriculture. Capital, Quebec. Largest town, Montreal.

SASKATCHEWAN. Lt.-Governor, Hon. G. W. Brown. Pop. 690,000 (approx.). Area 251,700 sq. m. (8,500 water). Grain cultivation and stock-farming. Capital, Regina.

YUKON. Commissioner, Hon. G. Black. Pop. 8,500. Area 200,000 sq. m. Gold, copper and coal mining. Chief town, Dawson City.

Ceylon

Crown Colony. Governor, Sir Robert Chalmers (b. 1858). Pop. 4,282,000. Area 25,300 sq. m. Exports to U.K. about £7,700,000, chiefly tea, coffee and rubber.

Net public debt (1913) £5,906,000. Imports £18,800,000. Exports £15,600,000 (1913). Maldivelands, a group of coral islets, form Dependency of Ceylon governed by elected Sultan.

Cyprus

Administered by Great Britain by agreement with Turkey till recently, now under British control. High Commissioner, Major Sir J. E. Clauson. Pop. 274,000 (1911). Area 8,500 sq. m. Imports and exports about £620,000 (1913). Public debt £263,800.

Falkland Islands

Governor, Wm. D. Young. Pop. about 3,300. Area estimated at 7,000 sq. m. Imports £239,000. Exports £1,460,000. Sheep-farming and whaling.

Federated Malay States

Under British protection, comprising Perak, Selangor, Negri Sembilan and Pahang. High Commissioner, Sir A. H. Young (Governor Straits Settlements). Each State ruled by Sultan with British Resident. Pop. about 1,037,000. Area 27,500 square miles. Imports £9,817,900. Exports £17,236,700 (1913). No public debt. Rubber, tapioca, copra, rice, chief products. Other Malay States (frontiers not yet fixed) under British suzerainty (dating from 1909) by treaty with Siam. Pop. about 720,000. Area about 15,600 sq. m.

Gibraltar

Crown Colony. Military Governor, Sir Herbert Miles (b. 1850). Pop., including garrison, about 24,000. Area 1½ sq. m. Trade chiefly with Great Britain and Northern Africa. Revenue 1913, £104,600. Commands the entrance to the Mediterranean and is important coaling station for Navy.

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Hong Kong and Kowloon

Crown Colony. Governor, Sir F. H. May (b. 1860). Pop. 870,800. Area 48 sq. m. Certain adjoining territories are leased to Gt. Britain by China. Exports to United Kingdom £875,000 (1913). Military and naval station, and centre for European trade in the East. Public debt £341,800.

India

Viceroy or Governor-General, Rt. Hon. Lord Hardinge of Penshurst (b. 1854). Population (1911) 315,086,000. Area, including Native States and Burmah, 1,773,000 sq. m. Seat of Government, Delhi. Madras, Bombay and Bengaleach ruled by a Governor and Council. Chief industry, agriculture. Imports (1913-14) £156,474,000. Exports £170,853,600. Native States form a third of the country; they are controlled by native Princes assisted by Political Residents, and must only maintain a limited army. Debt, British India (1914) £307,115,000.

Malta

Crown Colony, under Military Governor, Lord Methuen. Population about 228,000, with garrison. Area 117 sq. m. Exports chiefly fruit and vegetable. Public debt £79,000. The great dockyard of the British Mediterranean Fleet. Capital, Valetta.

Mauritius

Governor, Major Sir R. Chancellor (b. 1870). Pop. (estimated) 379,800. Area about 720 square miles. Imports £2,466,800. Exports £2,241,000 (1913). Debt £1,286,800. Sugar and hemp principal products. Various islands, small and not important, are dependencies, the largest being Rodrigues, pop. 4,900, area 40 square miles.

Newfoundland with Labrador

Governor, Sir Walter E. Davidson (b. 1859). The oldest British Colony. Population 248,500, with Labrador 247,500. Area: Newfoundland, 42,730 sq. m.; Labrador, 180,000 sq. m. (approx.). Imports £8,300,000. Exports £3,026,900. Debt £6,057,700. The fisheries—whale, seal, cod, and herring—are the great industry.

New Hebrides (Polynesia)

Under joint French and English protection. Pop. about 100,000. Area about 3,000 sq. m. Undeveloped; chiefly agricultural.

New Zealand

Dominion. Governor, the Earl of Liverpool. Prime Minister, Rt. Hon. W. E. Massey. Population of the two Islands and smaller groups about 1,086,000, excluding Maoris, about 50,000. Area 104,000 square miles. Imports £22,288,000. Exports £22,986,000. Debt £91,689,000. Agriculture, mining, and frozen meat trade.

Pacific Islands

High Commissioner for Western Pacific, Sir Ernest Sweet-Escott, Governor of Fiji. Total population, including Fiji and Tonga Islands, Solomon Is., the Gilbert and Ellice Is., and various coral groups, about 859,000. Total area about 16,880 sq. m. Total imports about £1,286,000. Exports £2,100,000. Chief products, fruit, phosphates, rubber, copra.

Papua (British New Guinea)

Lieut.-Governor, J. H. Murray. Population estimated at 262,000 (1,100 Europeans). Area, including neighbouring islands, about 90,500 sq. m. Imports £218,800. Exports £128,000. Chief industries, gold-mining, pearl-fishing, copra and rubber cultivation. Capital, Port Moresby.

The Countries of the World

Sarawak (Borneo)

Independent State under British protection. Rajah, Sir G. J. Brooke (b. 1829). Pop. (estimated) 800,000. Area about 50,000 sq. m. Imports (1913) £861,400. Exports £801,000.

Seychelles Islands

Governor, Lieut.-Col. C. R. M. O'Brien. Population (1911) 26,000. Total area about 156 sq. m. Imports £85,000. Exports £165,000. Vanilla, coconuts, tortoise-shell.

South Africa, Union of

Governor-General, Rt. Hon. Viscount Buxton. Prime Minister, Gen. Louis Botha. Total population 5,973,000, about one quarter being Europeans. Total area 478,000 sq. m. Imports £355,35,000. Exports £39,938,600. Gold production £37,000,000. Diamonds £11,000,000 (1913). Public debt £126,296,000.

CAPE OF GOOD HOPE. Administrator, Sir N. de Vaal. Pop. 2,565,000. Area 276,990 sq. m. Chief exports are ostrich feathers, gold, diamonds, wool. Capital, Cape Town.

NATAL. Administrator, Hon. C. J. Smythe. Pop., with Zululand, 1,194,000 (about 1,000,000 natives). Area 35,290 sq. m. Coal, wool, fruit, grain chief products. Capital, Pietermaritzburg.

ORANGE RIVER COLONY. Administrator, Dr. A. E. Ramsbottom. Pop. 528,170. Area 50,390 sq. m. Chief occupation, sheep farming. Capital, Bloemfontein.

TRANSVAAL. Administrator, Hon. J. F. Rissik. Pop. 1,686,200. Area 110,426 sq. m. Centre of gold fields. Capital, Pretoria. Largest town, Johannesburg.

St. Helena

Governor, Major H. E. S. Cordeaux. Population 8,500. Area 47 sq. m. Imports £48,400. Exports £7,560 (1913). No debt.

Straits Settlements

Crown Colony, comprising Singapore with Labuan. Penang with Wellesley Province, Malacca and various islands. Estimated population 1914, 761,500. Governor, Sir A. H. Young (b. 1854). Area: Singapore 217, Labuan 28, Penang 8, W.P. 280 s.m., Malacca Territory 42 m. long and from 8 to 20 m. broad. Imports £56,400,000 (1913). Exports £45,300,000. Debt £6,913,300. Rubber, tin, rice chief products.

Wei-hai-wei

Leased by China to Great Britain, with adjacent islands. Commissioner, Sir J. H. S. Lockhart (b. 1858). Pop. (Chinese) about 150,000. Area (total) 1,500 sq. m. including region of British military administration. Imports from Great Britain £18,900 (1913). Fine harbour.

West Indies

BAHAMA ISLANDS. Governor, Hon. W. L. Allardice (b. 1861). Pop. (estimated) 57,200. Area 4,400 sq. m. Imports £403,500. Exports £263,900. Debt £42,800. Sponges, fruit and fibre.

BARBADOS. Governor, Sir Leslie Probyn (b. 1862). Pop. 173,300. Area 166 square miles. Imports £1,353,000. Exports £856,600. Debt £436,900. Sugar, molasses and cotton chief products.

BERMUDA. Governor, Lieut.-Gen. G. M. Bullock (b. 1851). Group of islands, with representative government. Pop. 20,000, about 7,000 being whites. Area 19 sq. m. Imports £570,500. Exports (1913) £73,000. Debt £45,500. Agriculture.

BRITISH GUIANA. Governor, Sir Walter Egerton (b. 1858). Pop. (estimated) 304,000. Area 89,480 sq. m. Imports £1,694,700. Exports £2,198,000. Debt £284,600. Cultivation of sugar-cane.

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BRITISH HONDURAS. Governor, Sir W. Collett (b. 1856). Pop. (about) 41,000. Area 8,600 sq. m. Imports £654,700. Exports £642,600. Debt £194,500. Timber, bananas, coconuts.

JAMAICA. Governor, Sir W. H. Manning (b. 1863). Population, with Turks Is. and Cayman Is., about 864,000. Area (total) about 4,600 sq. m. Imports £2,837,000. Exports (1913) £2,430,000. Debt £3,820,000. Fruit, coconuts, rum, coffee chief products.

LEEWARD ISLANDS. Governor, Sir H. Hesketh Bell (b. 1864). Population, including Antigua, Dominica, St. Kitts-Nevis, Montserrat and two or three smaller

groups, 127,000. Area (total) 704 sq. m. Imports £588,300. Exports £563,900. Sugar, cocoa, cotton.

TRINIDAD AND TOBAGO. Governor, Sir G. R. Le Hunte (b. 1852). Population of the two islands about 350,000. Area (total) 1,868 s. m. Imports £4,968,000. Exports £5,200,000. Debt £1,476,000. Asphalt, sugar, cocoa, rice.

WINDWARD ISLANDS. Governor Sir G. B. Haddon-Smith (b. 1861). Population, including Grenada, St. Lucia, St. Vincent and the Grenadines, about 183,000. Area (total) about 524 sq. m. Imports £694,200. Exports £756,750. Debt: Grenada £123,670, St. Vincent £1,000, St. Lucia £140,000. Spices, arrowroot, sugar.

The French Republic

PRESIDENT, Raymond Poincaré. Premier, M. Viviani. Population (1911 census) 39,601,500. Area 207,200 square miles. Imports £340,335,000 Exports (1913) £275,012,000. Debt £1,302,316,000. Army, compulsory universal service. Corsica forms Department of France. Population 289,000. Area 3,300 square miles.

ALGERIA. Governor-General, M. C. Lutaud. Pop. 5,563,000. Area 340,000 sq. m. Imports £20,720,000. Exports £13,350,000. Wine, wheat, phosphate.

ANNAM (Indo-China). Protectorate. King, Duy-Tan (b. 1900) with Regency Council. Pop. about 5,000,000. Area 60,000 sq. m. Raw silk, rice, etc.

CAMBODIA (Indo-China). Protectorate. King, Sisowath. Pop. 1,634,000 (1,000 Europeans). Area about 55,000 sq. m. Imports £496,000. Exports £793,000. Cotton, tobacco, rice.

COCHIN-CHINA. Pop. about 3,000,000 (11,000 Europeans). Area about 20,000 sq. m. Imports (1913) £6,463,800. Exports £8,485,000. Rice chief product.

FRENCH CONGO, also known as French Equatorial Africa, under a Governor-General. Population (estimated) 6,000,000 to 9,000,000. Area (approximate) 668,000 sq. m.

Imports £813,000. Exports (1912) £820,000. Ivory, ebony, rubber.

FRENCH GUIANA, under Governor and Council. Pop. 50,000. Penal settlement. Area about 33,000 sq. m. Imports £436,000. Exports £484,000. Gold-mining.

FRENCH INDIA (Pondicherry and other towns in district). Pop. about 279,000. Area about 196 sq. m. Imports £360,000. Exports (1912) £1,488,000. Oil seeds, rice.

FRENCH SOMALILAND. Protectorate. Population (estimated) 208,000. Area about 6,000 sq. m. Imports £1,304,000. Exports £767,000. Coffee, ivory, gold.

FRENCH WEST AFRICA. Including Senegal, Guinea, Dahomey, Ivory Coast, Niger Territory and Mauritania. Pop. 12,000,000, chiefly natives. Area about 1,500,000 square miles. Imports £5,850,000. Exports £4,870,000. Rubber, palm-oil, nuts.

The Countries of the World

GUADELOUPE and island dependencies. Pop. 212,400. Area 690 sq. m. Imports £726,000. Exports £917,000. Sugar, coffee, bananas.

KWANG-WAN-CHAU TERRITORY (Indo-China). Protectorate. Pop. about 169,000. Area 800 sq. m.

LAOS TERRITORY (Indo-China). Protectorate. Pop. 650,000. Area (approximate) 100,000 sq. m. Revenue £83,000. Expenditure £76,000. Mining, rice-cultivation.

MADAGASCAR. Governor-Gen., M. Albert Picqué. Population, with Dependencies of Nossi-Bé, Comoro Islands, Mayotte and Diego Suarez, approximately 3,296,000, over 3,000,000 native. Area 229,000 sq. m. Imports £1,870,000. Exports £2,242,000. Gold, rice, hides, sugar, vanilla.

MARTINIQUE. Pop. 194,000. Area 390 sq. m. Imports £888,500. Exports £1,155,000. Rum, cocoa, sugar chief products.

MOROCCO. Protectorate. Resident-General, General Lyautey. Sultan, Mulai Yusef. Population (estimated) 8,000,000 to 5,000,000. Area about 220,000 square miles. Imports £10,000,000 (approximate). Exports about £2,000,000. Cereals, eggs, olive oil.

NEW CALEDONIA. Pop., with Loyalty Islands and others, about 70,000. Penal station, over 5,000 being of convict origin. Area about 8,550 square miles. Imports £708,000. Exports £633,000. Minerals (nickel, cobalt, etc.).

REUNION. Pop. 173,800. Area 970 sq. m. Imports £990,000. Exports £650,000. Sugar.

ST. PIERRE AND MIQUELON. Pop. 4,500. Area 93 sq. m. Imports £168,000. Exports £239,000, chiefly dried fish.

TAHITI. Pop., including Society Island, Marquesas, Leeward and others, about 82,000, chiefly natives. Area about 1,500 sq. m. Imports £361,000. Exports £462,000. Mother-of-pearl, copra.

TONQUIN (Indo-China). Pop. 6,100,000. Area 46,400 sq. m. Revenue £757,000. Expenditure £494,000. Rice chief export.

TUNIS. Protectorate. Resident-General, M. Gabriel Alapetite. Bey, Sidi Mohammed (b. 1855). Pop. about 2,000,000, chiefly Bedouins and Kabyles. Area 50,000 sq. m. Imports £5,700,000. Exports (1913) £7,000,000. Debt £9,287,000. Agriculture chief industry. Phosphates to the value of £2,000,000 produced in 1913.

The German Empire

POPULATION 64,926,000 (1910). Founded in 1871. The various states, whilst retaining their domestic individuality, united under the King of Prussia for military and diplomatic purposes. Area, Europe 208,890 sq. m., Overseas 1,120,000 sq. m. Imports £584,750,000. Exports £495,680,000 (1913). Debt £270,000,000 in 1912. Army, service compulsory and universal.

Europe

ALSACE-LORRAINE (Elsass-Lothringen). Governor, Dr. von Dallwitz. Pop. 1,874,000. Area 5,600 sq. m.

ANHALT. Duke, Friedrich II. Pop. 331,128. Area 888 sq. m.

BADEN. Grand Duke, Friedrich II. (b. 1857). Pop. 2,142,830. Area 5,828 sq. m.

BAVARIA. King, Ludwig III. (b. 1845). Pop. 6,887,290. Area 29,292 sq. m.

BREMEN. Free City. Pop. 299,526. Area 99 sq. m.

BRUNSWICK. Duke, Ernest Augustus (b. 1887). Pop. 494,340. Area 1,418 sq. m.

HAMBURG. Free City. Pop. 1,014,664. Area 160 sq. m.

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HESSE. Grand Duke, Ernst Ludwig (b. 1868). Pop. 1,282,050. Area 2,966 sq. m.

LIPPE. Prince, Leopold IV. (b. 1871). Pop. 150,937. Area 469 sq. m.

LUBECK. Free City. Pop. 116,600. Area 115 sq. m.

MECKLENBURG-SCHWERIN. Grand Duke, Friedrich Franz IV. (b. 1882). Pop. 640,000. Area 5,068 sq. m.

MECKLENBURG-STRELITZ. Grand Duke, Adolph Friedrich (b. 1882). Pop. 106,440. Area 1,131 sq. m.

OLDENBURG. Grand Duke, Friedrich August (b. 1852). Pop. 483,040. Area 2,482 sq. m.

PRUSSIA. King, William II., German Emperor. Pop. 40,165,200. Area 134,616 sq. m.

REUSS (Junior Branch). Prince, Heinrich XXVII. (b. 1858). Pop. 152,750. Area 319 sq. m. (Elder Branch). Prince, Heinrich XXIV. (b. 1878). Pop. 72,769. Area 122 sq. m.

SAXE-ALTENBURG. Duke, Ernst II. (b. 1871). Pop. 216,128. Area 511 sq. m.

SAXE-COBURG-GOTHA. Duke, Charles Edward, Duke of Albany (b. 1884). Pop. 257,177. Area 764 sq. m.

SAXE-MEININGEN. Duke, Bernhard (b. 1851). Pop. 278,760. Area 953 sq. m.

SAXE-WIEMAR. Grand Duke, William Ernst (b. 1876). Pop. 417,150. Area 1,397 sq. m.

SAXONY. King, Friedrich August III. (b. 1865). Population 4,806,660. Area 5,789 sq. m.

SCHAUMBURG-LIPPE. Prince, Adolph (b. 1882). Pop. 46,652. Area 131 sq. m.

SCHWARZBURG-RUDOLSTADT. Prince, Günther (b. 1852). Pop. 100,700. Area 863 sq. m.

SCHWARZBURG-SONDRERSHAUSEN. Prince, Günther (b. 1852). Pop. 89,917. Area 333 sq. m.

WALDECK. Prince, Friedrich. Pop. 61,700. Area 433 sq. m.

WURTEMBERG. King, William I. (b. 1848). Pop. 2,437,570. Area 7,534 sq. m.

Overseas

CAMEROONS. Population about 2,530,000. Area 191,000 sq. m. Palm-oil, ivory, rubber. Occupied by British and French forces.

GERMAN EAST AFRICA. Pop. about 7,500,000, chiefly natives. Area 384,000 sq. m. Chief products, copra, gum, hides, coffee.

GERMAN NEW GUINEA. Pop. estimated at 500,000 (280 Europeans). Area (approx.) 70,000 sq. m. Chief products, tobacco, cotton, coffee. Taken by the Australian Expeditionary Force on September 11, 1914.

GERMAN SOUTH-WEST AFRICA. Pop. estimated 200,000 (14,000 Europeans). Area 322,500 sq. m. Chief industry, agriculture. Diamonds exported to value of £1,000,000 annually. Surrendered to Gen. Botha in July, 1915.

KIAO-CHAU. Area 200 sq. m. Naval base and coaling station. Taken Nov., 1914, by British and Japanese co-operation.

SAMOA. Two of these islands were a German Dependency. Pop. 36,000. Area about 1,000 sq. m. Chief products, copra, cocoa. Captured by the New Zealand Expeditionary Force in September, 1914. The Bismarck and the Solomon groups, have also been taken.

TOGOLAND. Population about 1,350,000 (360 Europeans). Area 33,680 sq. m. Chief products, gum, ivory. Taken in August, 1914, by British from Gold Coast with assistance of French. Mr. Bonar Law said (July 21, 1915), "Togoland was, I think, the only German overseas possession that had paid its way."

Europe

ALBANIA. Controlled by International Commission. Prince, nominally ruler, elected by the Senate, Burhan-ed-Din, son of Abdul Hamid, ex - Sultan of Turkey. Pop. (approx.) 1,500,000. Agriculture and cattle-rearing chief industries.

ANDORRA (Pyrenees). Republic, under the suzerainty of France and the Spanish Bishop of Urgel. Governed by a Council. Pop. 5,200. Area 175 sq. m.

AUSTRIA-HUNGARY. Emperor of Austria and King of Hungary, Francis Joseph I. The two countries have separate legislatures, but army and navy in common. Pop. Austria 29,000,000. Area 115,900 sq. m. Debt (1914) £304,700,000. Pop. Hungary 21,000,000. Area 125,400 sq. m. Debt (1914) £225,000,000. Imports Austria - Hungary (1913) £141,400,000. Exp. £115,000,000.

BELGIUM. King, Albert. Pop. 7,500,000. Area 11,370 sq. m. Mainly occupied by Germans after fall of Antwerp, Sept., 1914. Belgium owns a large section of the Congo.

BULGARIA. Tsar, Ferdinand I. Population (approximate) 4,600,000. Area (estimated) 43,300 sq. m. Imports £8,500,000. Exp. £6,250,000. Debt £85,145,500. Army at full strength about 350,000; compulsory service.

DENMARK. King, Christian X. (b. 1870). Parliamentary government. Pop. 2,775,000. Area 15,590 sq. m. Imports £47,500,000. Exports £40,070,000. Butter, eggs and bacon far exceed all other products in importance.

[Denmark's Dependencies are FAROE ISLANDS, GREENLAND, and ICELAND. Pop. Faroe Islands about 18,000. Area 115 sq. m. Pop. of Greenland about 12,000, chiefly natives. Area 46,000 sq. m. Pop. of Iceland 86,000. Area 40,000 sq. m. Iceland has its own Legislature.]

GREECE (including CRETE).

King, Constantine I. (b. 1868). Premier, M. Zaimis. Population 4,800,000. Area about 42,000 sq. m., with territories acquired after the war with Turkey in 1912-13. Imports £6,806,000. Exports £5,840,000 (1912). Debt £35,873,000. Compulsory universal service. Chief industry, agriculture.

HOLLAND (the NETHERLANDS) Queen, Wilhelmina (b. 1880). Pop. 6,250,000. Area 12,600 sq. m. (15,000 sq. m. including water). Imports £301,000,000. Exports £259,420,000 (1912). Debt £95,716,000. Chief industries agriculture and fishing. Army service partly voluntary, but mainly compulsory.

[HOLLAND'S COLONIES are: Curacao, in the West Indies; Surinam (Guiana), Java, Borneo, Sumatra, Celebes, the Moluccas, the Sunda Islands, and Western New Guinea.]

HUNGARY (see Austria-Hungary).

ITALY. King, Victor Emanuel III. (b. 1869). Pop. 35,597,700. Area 110,640 sq. m. Imports £145,000,000. Exp. £140,156,000 (excluding precious metals). Debt £570,864,000. Chief industries agricultural and textile. Principal exports wine, silk, oil, cattle. Army, universal service compulsory. Italy possesses in Africa, Eritrea, part of Somaliland, and Tripoli.

LUXEMBURG (Grand Duchy). Grand Duchess, Marie-Adelaide (b. 1894). Pop. 259,900. Area 998 sq. m. Revenue £728,000; expenditure £778,300 (1913). Industry iron mining.

MONACO. Ruler, Prince Albert (b. 1848). Pop. 23,000. Area 8 sq. m.

MONTENEGRO. King, Nicholas I. (b. 1841). Pop., estimated, 515,000. Area, estimated, 5,600 sq. m. Imports (1910) about £340,000. Exports £99,000. Debt (1911) £250,000.

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NORWAY. King, Haakon VII. (b. 1872). Pop. 2,428,000. Area 124,600 sq. m. Imports £29,200,000. Exports £18,648,000 (1912). Debt £70,156,000. Industries, timber-growing, mining, fishing, agriculture.

PORTUGAL. Republic. President, Dr. Manoel Arriaga (b. 1841). Pop. 5,900,000, including Madeira and the Azores. Area, total 35,490 sq. m. Imports £20,000,000 (1912). Debt £168,000,000. Chief products, wine, maize, oranges. Portuguese colonies and possessions are: Angola (West Africa), Cape Verde Islands, Portuguese Guinea, Goa (India), with other small dependencies; Macao (China), Mozambique, St. Thomé and Príncipe Islands, and Timor.

ROUMANIA. King, Ferdinand I. (b. 1865). Prime Minister, M. Bratianu. Pop. 7,510,000. Area 53,600 square miles. Imports £22,800,000. Exports £27,668,800. Debt £65,630,000. Chief occupation, agriculture.

RUSSIA. Emperor and Tsar, Nicholas II. (b. 1868). Government, autocratic, with a Duma or Senate, founded in 1905. Premier, M. Goremykin. Population: Russia proper 125,680,000, Siberia 9,780,000, Poland 12,000,000, other provinces 25,000,000; total estimated at 172,000,000. Area: Russia proper 1,867,700 sq. m., Siberia 4,830,000 sq. m., Poland 43,000 sq. m., other provinces 2,007,000 sq. m.; total estimated at 8,660,000 to 8,760,000 sq. m. Imports £129,100,000. Exports £145,000,000 (1913). National debt £950,000,000. Army, compulsory universal service. War expenditure to end of 1915 estimated by Minister of Finance at £724,000,000. Agriculture is the most important occupation. Chief exports, grain, eggs, flax, timber, etc.; petroleum from the Caspian region. See article, "British Opportunities in Russia."

SAN MARINO. Independent Republic, surrounded by Italy. Pop. 11,000. Area, 38 sq. m.

SERBIA. King, Peter I. (b. 1844). Pop. about 4,500,000. Area 83,800 sq. m. Imports £4,248,000. Exports £3,368,500 (1912). Debt £26,850,000. Agriculture and forestry chief occupations. Army, service compulsory and universal.

SPAIN. King, Alfonso XIII. (b. 1886). Pop. about 20,000,000. Area, with Balearic Isles, Canaries and small territories on N. and W. African coast, about 194,700 sq. m. Imports (1913) £47,000,000. Exports £39,000,000. Debt £836,100,000. Agriculture, vine cultivation, mining and fishing, chief industries. Army, compulsory service; peace strength 152,000.

SWEDEN. King, Gustavus V. (b. 1858). Pop. 5,630,000. Area 172,900 sq. m. Imports £46,600,000. Exports £45,000,000. Debt £34,000,000. Agriculture, iron-mining, timber working, and the manufacture of machinery are the chief industries. Army, universal service; peace strength about 75,000.

SWITZERLAND. Confederation of 22 Cantons or Provinces, each having local government. Laws, finance, etc., controlled by *referendum*. President, Giuseppe Motta (b. 1871). Pop. 3,800,000. Area 15,976 sq. m. Imports £58,500,000. Exports £47,474,000 (1914). Chief occupation, agriculture. Chief exports, textiles, and clocks and watches. Army, universal and compulsory service; strength about 200,000.

TURKEY. Sultan, Mahomed V. (b. 1844). Moslem State, under Parliamentary constitution. European population about 1,890,000. Area 10,880 sq. m. Asiatic pop.: Asia Minor 10,000,000, Armenia and Kurdistan 2,500,000, Mesopotamia 1,750,000, Syria 3,500,000, two vilayets in Arabia 1,050,000; total (approx.) 19,000,000. Total Asiatic area about 700,000 sq. m. Army, compulsory universal service introduced in 1914; organised, equipped, and partly financed by Germany.

Asia and Africa

ABYSSINIA. The ancient empire of Ethiopia. King, Lij Yasu, G.C.V.O. (b. 1896). Independence and protection agreed upon by Great Britain, France and Italy.

AFGHANISTAN. Ameer, Habibullah Khan (b. 1872). Foreign relations controlled by Great Britain. Pop. about 6,000,000.

ARABIA. Partly under Turkish rule. Pop. about 12,000,000. Area 1,000,000 sq. m.

CHINA. Republic. President, Yuan Shih-kai. British Political Adviser, Dr. G. E. Morrison. Pop. 320,000,000. Area about 4,000,000 sq. m. The oldest empire in the world, became a Republic in February, 1912. Imports £63,200,000. Exports (1912) £56,540,000.

JAPAN. Emperor, Yoshihito Harunomiya (b. 1879). Population 53,500,000. Area, including Formosa, part of Saghalien, Korea, etc., 260,000 sq. m. Imports £59,570,000. Exports £59,110,000. Debt £261,580,000. Agriculture

chief occupation. Rice, tea, silk, sugar principal products. Army, universal and compulsory service.

LIBERIA. Negro Republic (West Africa). President, Daniel Howard. Pop. about 2,000,000. Area (approximate) 40,000 square miles. Language, English. Coffee, rubber, ivory, palm-oil.

OMAN. Independent State, Arabia. Sultan, Seyyid Taimur bin Feysil. Population (estimated) 500,000, chiefly nomads. Area about 82,000 square miles.

PERSIA. Shah, Sultan Ahmed (b. 1898). Pop. (approximate) 9,500,000. Area (estimated) 628,000 square miles. Imports £11,000,000. Exports (1913) £8,000,000. Debt £6,500,000. Silk, wool, cotton, gums, naphtha chief products.

SIAM. King, Chowfa Maha Vajiravudh (b. 1881). Pop. about 8,130,000. Area about 195,000 square miles. Imports £6,600,000. Exports (1913) £8,865,000. Debt £6,257,000. Rice, fruit chief products. Timber-cutting (teak).

North and South America

ARGENTINE REPUBLIC. President, Señor V. de la Plaza. Pop. estimated at 7,500,000, chiefly Spanish and Italian. Area 1,135,800 sq. m. Imports £84,270,000. Exports £96,700,000 (1913). Debt £105,000,000. Farming and stock-breeding.

BOLIVIA. Republic. President, Don Ismael Montes. Population (approx.) 2,268,000. Area 708,000 sq. m. Imports £4,200,000. Exports £7,100,000. Debt £2,700,000. No sea-coast, but access by treaty with Chile to Pacific harbours. Rubber, mining and agriculture.

BRAZIL. Republic. President, Señor W. Braz. Pop. 23,000,000. Area 8,291,400 sq. m. Imports £67,000,000. Exports £64,600,000. Debt: Foreign £105,000,000, Internal £66,000,000. Coffee, cotton, rubber chief industries.

CHILE. Republic. President, Señor J. Luis Sanfuentes. Pop. 3,550,000. Area 294,000 sq. m. Imports £24,713,000. Exports £29,340,000. Debt £33,912,000.

COLOMBIA. Republic. President, Señor Don José Vicente Concha. Pop. 5,470,000. Area 480,000 sq. m. Imports £5,500,000. Exports £6,863,000. Foreign debt £2,486,000 (1913). Emerald mines supply the whole output of this precious stone.

COSTA RICA. Republic. President, Señor Alfredo Gonzalez. Pop. 411,000. Area 23,000 sq. m. Imports £1,787,000. Exports £2,124,000. Bananas.

CUBA. Republic. Controlled by the United States. President, General Mario Menocal. Pop. 2,427,000, one-third coloured. Area 44,100 square miles. Imports

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£28,750,000. Exports £32,964,000. Debt £14,400,000. Sugar, fruit, tobacco, and timber.

ECUADOR. Republic. President, Gen. Leonidas Plaza. Pop. about 1,500,000, chiefly Indians. Area, including the Galapagos Islands, about 119,000 sq. m. Imports £2,000,000. Exports £3,000,000. Debt, foreign and internal, £4,000,000. Exclusive industry, the manufacture of "Panama" hats.

GUATEMALA. Republic. President, Don Manuel Estrada-Cabrera. Pop. about 2,000,000. Area 47,900 sq. m. Imports £2,012,500. Exports £2,890,000. Coffee, timber, bananas.

HAITI. President, Gen. Dartiquenave. Pop. about 2,500,000, chiefly negroes. Area (estimated) 10,000 sq. m. Cocoa, cotton, coffee (*see* San Domingo).

HONDURAS. Republic. President, Dr. Francisco Bertrand. Pop. about 562,000, mixed Spanish and native races. Area 44,000 sq. m. Imports £1,054,700. Exports £1,634,000. Debt £30,000,000. Bananas, coffee, wheat, indigo.

MEXICO. Republic in state of rebellion with armed intervention threatened by United States of America. Population (approx.) 15,500,000. Area 770,000 sq. m. Imports £19,577,000. Exports £30,000,000 (1913). Debt £30,117,000 (1911). Silvermining, coffee, tobacco, petroleum.

NICARAGUA. Republic. President, Señor Adolfo Díaz. Pop. estimated 600,000, chiefly Indians, and mixed Spanish and native races. Area 49,000 sq. m. Imports £993,000. Exports £772,000. Debt £1,190,000.

PANAMA. Republic. President, Dr. B. Porras. Pop. 338,700. Area 32,000 sq. m. Imports £2,000,000. Exports £493,500 (1913). Chief products, bananas, coffee, timber. No army or navy. No debt. **CANAL ZONE.** American Govnr., Col. G. W. Goethals. Pop. 61,270. Area 448 sq. m. The Canal is now in regular use,

and the tolls average about £71,165 per month.

PARAGUAY. Republic. President, Señor Edouardo Schaerer. Pop. about 800,000. Area about 65,000 sq. m. Imports £1,624,030. Exports £1,126,000. Debt £1,800,000. Cattle-ranching.

PERU. Republic. President, Gen. Oscar Benavides. Pop. estimated 4,500,000. Area 722,400 sq. m. Imports £6,000,000. Exports £8,900,000 (1913). Debt £5,400,000.

SAN DOMINGO. Republic, occupying part of Haiti. Pres. Señor Jimenez. Population about 600,000. Area (approx.) 18,000 sq. m. Imports £1,900,000. Exports £2,100,300. Debt £5,000,000. Sugar, cocoa, tobacco.

SAN SALVADOR. Republic. President, Carlos Melendez. Pop. 1,500,000. Area 7,220 sq. m. Imports £1,250,000. Exports £1,970,000.

UNITED STATES OF AMERICA. Republic. Pres., Woodrow Wilson. Each of the 48 States has Legislature and Governor. Pop. (1910) 91,972,200—including 9,827,700 negroes, 146,800 Chinese and Japanese, and 265,600 Indians. Area 3,574,658 sq. m. Imports (1913) £362,595,600. Exports £485,701,200. Net national debt £208,479,900. **ALASKA**, acquired by purchase from Russia, **GUAM ISLAND** (Naval Base), **PHILIPPINE ISLANDS**, and **PORTO RICO** were ceded by Spain. U.S. acquired part of the **SAMOAN ISLANDS** by agreement with Gt. Britain and Germany, also possesses **SANDWICH ISLANDS (HAWAII)**.

URUGUAY. Republic. President, Dr. F. Viera. Population 1,279,000. Area 72,200 sq. m. Imports £7,500,000. Exports £10,500,000. Debt £29,000,000. Cattle, sheep farming, wine, etc.

VENEZUELA. Republic. President (provisional) Dr. V. M. Bustillos. Pop. 2,750,000. Area about 880,300 sq. m. Imports £3,500,000. Exports £5,500,000. Debt £7,000,000. Mining, agriculture, cattle-ranching.

Who's Who in the War



ABBAS HILMI. Ex-Khedive of Egypt. Deposed by British Government on the outbreak of war with Turkey, since when he has definitely sided against England. He intrigued constantly against British influence in Egypt.

AGA KHAN, THE. Full title: "His Highness Aga Sultan Sir Mahomed Shah, Aga Khan, G.C.S.L., G.C.I.E." Has no territorial possessions, but is spiritual head of the Khoja Moslems in Western India, and recognised temporal leader of over 60 millions of Indian Mahomedans. Received title as a personal distinction in 1886; was created K.C.I.E. 1898; G.C.I.E. 1902; G.C.S.L. 1911. Seat of the family, Bombay. Came to London from Zanzibar at the outbreak of war, and in addition to directing his followers to place their services and resources unreservedly at the disposal of the Government, volunteered to serve as a private in any infantry regiment of the Indian Expeditionary Force.

ALBERT, King of the Belgians. Born 1875; ascended throne on death of Leopold II. (his uncle) in 1909. Married Duchess Elizabeth of Bavaria. Has won the love of his people, and especially of his Army, by sharing the hardships of the war and taking a place in the firing-line. Has led his troops with great courage and skill.

ALEXANDER, Prince. Crown Prince of Serbia and Com-

mander-in-Chief of Serbian Army. Born 1888.

ALEXEIEFF, Gen. E. Born 1843. Chief of Staff to the Tsar. Was Chief of Staff to Kuropatkin in war with Japan. Of lowly birth, made his way in Russian Navy by his own brilliant qualities. Is said to have designed skilful retreat from Warsaw, by which Grand Duke kept his army intact.

ALLEN, Col. JAMES. Minister for Defence, New Zealand.

ANGELL, NORMAN. Born 1874. Author. Manager of Paris edition of *Daily Mail*. His most noted work "The Great Illusion" (1910) has been translated in many languages; it dealt with the impossibility of war, and was considered economically sound—until August, 1914.

ASQUITH, Rt. Hon. HERBERT H., K.C., B.A., M.P. Born 1852. Secretary of State for Home Dept. 1892-95; Chancellor of the Exchequer 1905-8. War Minister for short period in 1914 after trouble with army over Ulster question. On April 25th, 1915, had been Premier for 7 years and 17 days, thus exceeding Lord Salisbury's third and last Premiership, which lasted 7 years 16 days. Formed Coalition Government for purposes of the war May, 1915. Two of his sons, both Lieutenants wounded in the Gallipoli Peninsula.

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AUGAGNEUR, M. French Minister of Marine.

BADEN - POWELL, Lt.-Gen. Sir R. S., Kt., K.C.V.O., K.C.B., C.B., LL.D., F.R.G.S. Born 1857. Served Zululand, 1888; Ashanti, 1895; defended Mafeking in the S.A. war; organised the South African Constabulary; retired 1908; founded the "Boy Scouts" movement in the same year and has been actively connected with it since. Has written various sporting, military, and "scout" books.

BAILLOUD, Gen. MAURICE. Provisional Commander in Chief of French Mediterranean Expeditionary Corps in place of Gen. Gouraud, who returned to France severely wounded early in July. Born 1847. Commanded 2nd Brigade China Expeditionary Corps, 1900; 20th Army Corps, 1906; 19th Army Corps, 1907.

BALFOUR, Rt. Hon. A. J., F.R.S., D.L., M.P. First Lord of the Admiralty, assuming that office in place of Mr. Winston S. Churchill when Coalition Cabinet formed May, 1915. Born 1848. Private Sec. to Marquis of Salisbury, 1878-80; Irish Secretary, 1887; First Lord of the Treasury and leader of House of Commons, 1891 and 1895-1902; succeeded Lord Salisbury as Prime Minister (1902). Retired from Unionist leadership 1913. Has written several books on theological and philosophic questions, best known being "In Defence of Philosophic Doubt."

BARNARDISTON, General, M.V.O. Commander of the British forces co-operating in the Far East with the Japanese. Born 1858. A.D.C. to Governor of Bermuda, 1889; served in South African Campaign; Military Attaché Brussels and The Hague, 1902; Scandinavian Courts, 1904;

2nd in Command Sandhurst, 1906-10.

BARRY, Lt.-Col. STANLEY L., D.S.O. A.D.C. to Sir John French. Born 1873. Served in South African War; commanded 4th Batt. Northamptonshire Regt. at opening of present war.

BATTENBERG, Prince LOUIS ALEXANDER OF, G.C.B., G.C.V.O., K.C.B., K.C.M.G. Born Gratz (Austria), 1854 (son of Prince Alexander of Hesse). Entered Royal Navy as a naturalised British subject, 1868; becoming Captain in 1891; Rear-Admiral, 1904. Director of Naval Intelligence Department, 1902-4. Commander-in-Chief Atlantic Fleet, 1908-10. At beginning of war was First Sea Lord of the Admiralty, and it was due to him that the Fleet was in state of mobilisation at the moment war was declared; retired in response to general feeling on account of his birth, Lord Fisher taking his place.

BAVARIA, Prince LEOPOLD of, F.-M. In command of the German forces which captured Warsaw, for which he was specially decorated by the Kaiser with the Ordre pour le Merite.

BEATTY, Rear-Admiral Sir DAVID, C.B., D.S.O., M.V.O. Born 1871. Entered Navy 1884. Promoted Commander for services with the Nile gunboats in Soudan Campaign 1898; two years later distinguished himself in China. Given flag rank 1910. In Command First Battle Cruiser Squadron since 1913. In a running fight of 70 miles chased and defeated, on Sunday, Jan. 24th, 1915, a German squadron that had nearly reached the English coast; sank the *Blücher*. His flagship *Lion* had narrow escape.

BELLOC, HILAIRE. Author and student of social and mili-

tary affairs. Born 1870. Served in French artillery. His articles in *Land and Water* have made him facile princeps among writers on the war.

BENCKENDORFF, Count. Russian Ambassador in London since 1903. Born Berlin, 1849. Entered diplomatic service 1869; left it in 1876; became 1st Secretary at Vienna 1886; Russian Minister at Copenhagen 1897—1903.

BENEDICT XV., Pope. (Cardinal della Chiesa.) Elected Pope Sept. 3rd, 1914, crowned Sept. 6th. Born at Genoa 1854. Priest 1870, Monsignor 1883. Archbishop of Bologna 1907, Cardinal 1914. General attitude in the war disappointing to all who have been shocked by German methods. Credited with active attempts to bring about peace.

BERCHTOLD, Count LEO-POLD. Minister for Foreign Affairs, Austria-Hungary. Born 1863; entered diplomatic service 1883. Ambassador at Russian Court 1906—11, afterwards held high office in Foreign Affairs Dept., Vienna.

BERNHARDI, General VON. As a lieutenant entered Paris in 1871 with the victorious German Army. Eventually became a distinguished cavalry leader. His book "Germany and the Next War," neglected at its first publication a few years ago, but now famous, has done much to reveal the gospel of Prussia that might is right, and to explain the crimes against humanity and international law of which Germany has been guilty.

BERNSTORFF, Count. German Ambassador to the U.S.A. Born in London, 1862. Attaché at Constantinople, 1889; Secretary to Embassies at Belgrade, Dresden, St. Petersburg, and Munich; Councillor and First Sec. to Embassy 1902-7. Was sent to Washington Sept.

1914 to influence popular feeling and obtain goodwill of financial magnates and Press.

BETHMANN-HOLLWEG, Dr. THEOBALD. Born 1856. Imperial Chancellor of the German Empire, Prussian President of the Council and Minister of State for Foreign Affairs. President of the Province of Brandenburg, 1899; Minister of the Interior, 1905. Succeeded Prince von Bülow as Chancellor, 1909. Dr. of Laws, and a General-major in the Prussian army. Described Belgian neutrality treaty as "a scrap of paper," but is said to be opposed to "piracy" policy of Admiral von Tirpitz.

BIRDWOOD, Maj.-Gen. Sir W. R., K.C.S.I., C.B., D.S.O. Commander of the Australian and N.Z. division of troops which made the famous Dardanelles landing in April. Born 1865. Served in S.A. War. Military Sec. to Lord Kitchener 1902; Milit. Sec. and Interpreter to Commander-in-Chief, India, 1905. Severely wounded in South Africa.

BISSING, General VON. German Military Governor of Belgium.

BORDEN, Sir ROBERT LAIRD, G.C.M.G., K.C. M.P. Born 1854. Premier of Canada since 1911. Had distinguished career as lawyer; in 1901, on the resignation of Sir Charles Tupper elected leader of Conservative Party. Stout advocate of Imperial tariffs, and of Colonial contributions to the Imperial Navy. In 1913 offered three battleships which were not put in hand owing to party opposition in Canada; to that form of contribution. Came to London in July, and on July 14th was present at a meeting of the Cabinet—an event of much significance. Received Freedom of London; decorated with Grand Cross of Legion of Honour during visit

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to France to inspect Canadians at the front.

BOTHA, Rt. Hon. General LOUIS, P.C., LL.D. Born Greytown, Natal, 1863. Succeeded General Joubert as Commander-in-Chief of the Boer forces in the South African War 1899. First Premier of the Union of S. Africa, 1910. Defeated rebel forces on Nov. 21st, 1914; entered the capital of German S.W. Africa on May 12th, 1915, and on July 9th the whole German forces in S.W. Africa, under Governor Seitz surrendered to him unconditionally. His loyalty to the British Cause and his skilful leadership in the field have roused admiration and enthusiasm throughout the Empire and been a bitter disappointment to Germany, whose deep laid intrigues have consequently come to nothing.

BRIALMONT, General. Planned the steel-cased forts of Liège, Namur, and Antwerp, which proved ineffective against modern weapons.

BROOKE, Lord L. G. F. M. GREVILLE, M.V.O., D.L., Major and Brevet Lt.-Col. A.D.C. to Sir John French. Born 1882. Raised Warwickshire Royal Horse Artillery. Served in South Africa 1900; Special Correspondent Russo-Japanese War.

BROQUEVILLE, Baron DE. Belgian Premier and Minister of War.

BRYAN, WILLIAM JENNINGS. Ex-Secretary of State, U.S.A. Born at Salem, Illinois, 1860. Nominated for President 1896, 1900, and 1908. Resigned June 8th, as protest against President Wilson's reply to German note *re* the *Lusitania*.

BRYANT, Lt.-Col. F. C. Commanded forces that captured German Togoland, Aug. 8th, 1914.

BUCHANAN, Rt. Hon. Sir G. W., K.C.V.O., K.C.M.G., C.B., etc. British Ambassador to Russian Court since 1910. Born 1854. In the Diplomatic Service in Italy, Japan, Austria, Switzerland, and other countries.

BUCKMASTER, Baron, of Cheddington. Lord Chancellor in Coalition Cabinet. Born 1861. As Sir Stanley Owen Buckmaster, K.C., M.P., Solicitor-General 1913. Director of Press Bureau in succession to Mr. (now Sir) F. E. Smith.

BULLEN, H. T., M.V.O. Captain of *Highflyer*, cruiser which sunk the *Kaiser Wilhelm der Grosse* off the West Coast of Africa, Aug. 26th, 1914. Commanded R.N. College, Dartmouth 1908—11; Flag-Captain Home Fleets 1911—12.

BULOW, Prince VON. Born 1849, eldest son of von Bülow, Prussian Minister of State. Served as lieutenant in the campaign of 1870. Attaché at Rome 1874; Secretary of Embassies at St. Petersburg, Vienna, Paris, etc.; Ambassador at Rome 1893—7; Sec. of State for Foreign Affairs 1897—1900; Imperial Chancellor, 1900—9. Raised to rank of Prince 1905. Mission to Rome 1915 failed to keep Italy neutral.

CADORNA, Count LUIGI (General). Chief of the General Staff of the Italian Army. Born Piedmont, 1850; educated Military College of Milan and Milit. Academy, Turin; Captain 1875; Major 1883; Colonel 1892, commanding 10th Reg. of Rifles. On death of Gen. Pollio in July, 1914, succeeded that officer as Chief. Took Command when Italy declared war against Austria, 1915. An offensive rather than defensive General; has special knowledge of the Austro-Italian frontiers.

CAMBON, PAUL, D.C.L., LL.D., G.C.V.O. French Ambassador to Court of St. James's. Born 1843. Was private Secretary to M. Jules Ferry; Resident-General in Tunis; Ambassador at Madrid and Constantinople. Had great influence in bringing about Anglo-French Entente.

CAMPBELL, Rt. Hon. J. H., P.C., M.P. Born 1851. Scholar in Mathematics, History, Law, and Political Economy. Solicitor-General for Ireland 1901-5; Attorney-Gen. Ireland 1905. Was offered and accepted, at the re-constitution of the Cabinet in May, the office of Irish Attorney-General; but stood aside when the Nationalists objected to appointment.

CAREY, Capt. *Queen*, S.E.R. cross-Channel boat; rescued nearly 2,000 survivors of the French hospital ship *Amiral Ganteaume*, torpedoed in the English Channel on Monday evening Oct. 26th, 1914.

CARSON, Sir EDWARD, K.C., M.P., M.A., LL.D. Attorney-General. Born 1854, Dublin. Solicitor-General for Ireland, 1892; Solicitor-Gen. 1900-1906. Organised the Ulster Volunteers; the situation in Ireland seemed critical, but when war broke out and the hope was expressed that he would be able to come to some understanding with Mr. Redmond, he wrote: "I can assure you that we will be ready to fall in with any scheme formulated by the War Office for the utilisation of our Volunteers for the defence of the country." Accepted office in Coalition Govt. May, 1915.

CASEMENT, Sir ROGER, C.M.G. H.M. Consul at Lorenzo Marques 1895; Consul for Portuguese possessions in West Africa south of the Gulf of Guinea and for Congo Free State, 1898-1905; Con-

sul at Para, 1908-9, later Rio Janeiro. Presided over enquiry into Belgian Congo and Putumayo Red Rubber atrocities. Known to-day as "The Kaiser's Irish ally."

CHAMBERLAIN, Rt. Hon. J. AUSTEN, M.P. Secretary for India. Born 1863. Eldest son late Rt. Hon. Joseph Chamberlain. Has held office in Unionist Governments as Civil Lord of Admiralty, Financial Secretary of the Treasury, Postmaster-General and Chancellor of the Exchequer.

CHAMBERLAIN, HOUSTON STEWART. Born 1855. Son of English Admiral. Was intended for the Army; became a private tutor. Studied at Geneva, Dresden, and Vienna; married daughter of Richard Wagner. Has written much (in German) on music and philosophy, and has become practically a German in thought and opinion, taking sides against England in the present war.

CHURCHILL, Rt. Hon. WINSTON SPENCER, P.C., M.P. Born 1874. Son of Lord Randolph Churchill. Entered army 1895; served with Spanish forces in Cuba same year; after varied experience soldiering in India and Africa (Nile Expeditionary Force and Battle of Omdurman, 1898) went through the S.A. war as correspondent for the *Morning Post*. Entered Parliament as Unionist; he joined Radicals and became Under-Sec. of State for Colonies 1906-8; President Board of Trade 1908-10; Home Sec. 1910-11; First Lord of Admiralty 1911, which office he held at opening of war; resigned in May, to take the Chancellorship of the Duchy of Lancaster, change attributed to recent difference with Lord

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Fisher over Dardanelles question.

CONNAUGHT, Duke of, K.G., K.T., G.C.M.G., etc. Gov.-General of Canada. Born 1850. Field-Marshal in British Army; Master Trinity House. Com.-in-Chief Bombay, 1886.

CONNAUGHT, H.R.H. Princess VICTORIA PATRICIA HELENA ELIZABETH of ("Princess Patricia"). Born Buckingham Palace March 17th, 1886. Has been especially active in equipping the Canadian troops; "Princess Patricia's Light Infantry" have become famous. Sir John French, after inspecting them, wrote to the Duke of Connaught:—"it seemed to me that I had never seen a more magnificent looking battalion."

CONSTANTINE, I., King of Greece. Born 1868. Married in 1889 a sister of the German Emperor. Succeeded to the throne in 1913 on the assassination of his father, King George I.

CURZON, Lord, of Kedleston, G.C.S.I., G.C.I.E., M.A., F.R.S., etc. Lord Privy Seal. Born 1859. Travelled much in Asia, and has written important books on the East. Unionist Under-Sec. of State for India 1891; for Foreign Affairs 1895-98; Viceroy of India 1899-1905; President R. Geographical Society 1911.

D'AMADE, General. Commanded the French forces in the Dardanelles at the beginning of the operations; through illness was replaced by General Gouraud.

BUNSEN, Sir MAURICE DE, G.C.M.G., K.C.V.O., etc. British Ambassador at Vienna at outbreak of war. Born 1852. Ambassador at Madrid 1906-1913. Used every possible endeavour to preserve peace between Great Britain and Austria.

COPPET, M. DE. War Minister of the Swiss Republic.

DELCASSÉ, THÉOPHILE. Born 1852. French Colonial Minister 1894. Famous as Foreign Minister 1898-1905. Handled Fashoda crisis with Great Britain with great tact. Resigned 1905 to avoid war with Germany, whose designs he unmasked. Became Minister of War 1914.

DERBY, Earl of, D.L., K.C.V.O., G.C.V.O. Originated in April, 1915, the "Dockers' Battalion," clothing the workmen in khaki and rousing their enthusiasm. Born 1865. Private Sec. to Lord Roberts 1899-1901 in South Africa; Financial Sec. to War Office 1900-3; Postmaster-General 1903-5. Organised in Aug., 1914, a battalion of Liverpool commercial employes—known as the "Pals Battalion."

DERNBURG, P.C., LL.D. Born 1865. Late German Sec. of State for Colonies. Entrusted with special mission to U.S.A. last winter. His criticism of American policy during the war aroused much resentment in April and May; he suggested that the *Lusitania* victims "committed suicide." Returned on June 29th to Berlin, British Admiralty allowing him to cross the Atlantic unmolested.

DESBOROUGH, Lord, K.C.V.O., B.A., D.L. Born 1855. Fine sportsman, famous swimmer. Early in the war initiated the Volunteer Training Corps movement for Home Defence, which has resulted in formation of such bodies as the National Guard and similar associations for military training all over the country.

DOBELL, Brigadier-Gen. C. M., D.S.O., F.R.G.S. Commanded the Anglo-French forces which captured the Cameroons, Sept. 28, '14. Born

1869. Served in Crete, China, and South Africa.

DRUMMOND, Captain JOHN E. Captain of the *Aboukir*, torpedoed in the North Sea, Sept. 22nd, 1914.

EDWARD ALBERT, Prince of Wales, K.G., etc. Born June 23rd, 1894. Qualified for the Royal Navy 1907 and entered Osborne College, afterwards going to Dartmouth College. In 1914 as lieutenant in the Army joined the British Expeditionary Force in France, attached to the General Staff. Shortly after his 21st birthday was given the Italian Order of Chivalry the Annunziata. Extremely popular at the front.

ENVER BEY. Commander-in-Chief of the Turkish Army.

ESSEN, Admiral VON. Admiral of the Russian Navy.

FALKENHAYN, General VON. Germany's War Minister; Chief of General Staff.

FERDINAND I. Tsar of Bulgaria. Born 1861. Son of Prince Augustus of Saxe-Coburg and Gotha. Elected to Bulgarian throne 1887. Is regarded as weak and ambitious—a pro-German in charge of a Slav people.

FERDINAND I., FERDINAND VICTOR ALBERT MEINRAD OF HOHENZOLLERN, King of Roumania. Nephew of the late King Carol (Charles). Born 1865; ascended throne Oct. 10th, 1914. Married in 1893 Princess Marie of Saxe-Coburg and Gotha.

FISHER, Baron, of Kilverstone, G.C.B., G.C.V.O., etc. Born 1841. Entered Navy 1854; served in Crimean War, 1855; China War, 1859—60; Egyptian War 1882, commanding the *Inflexible* at the bombardment of Alexandria; Director Naval Ordnance 1886—1891. First Sea Lord, 1904—1910. Recalled to the Admiralty when Prince Louis of Battenberg resigned in Oct.,

1914. Resigned owing to disagreement with Mr. Winston Churchill, May, 1915; in July appointed Chairman of the new Inventions Board.

FISHER, Rt. Hon. ANDREW. Prime Minister of the Australian Commonwealth. Born Kilmarnock, 1862. Went to Queensland 1885; Minister for Trade and Customs 1904; Prime Minister 1908—9; Leader of Federal Opposition 1909—10. Designate High Commissioner, London.

FOCH, General. Born 1851. Commander of the French Army in the North and in Flanders. Defeated Army of Crown Prince in the early days of the war. Is an authority on strategy, and has published several standard works on the subject; General Joffre said of him that he is "the greatest strategist in Europe and the humblest," and regards him as his right-hand man. "If the enemy has no weak point," said Foch, "make one."

FORGACH, Count. Permanent Under-Sec. to Austrian Foreign Office. Drafted Austrian ultimatum to Serbia. "One of the ablest instruments of the anti-Serbian and anti-Russian policy." Appointed Austrian Ambassador Berlin Aug., 1914.

FORSTER, HENRY WILLIAM, D.L., M.P. Financial Sec. to War Office. Born 1866. Famous cricketer. Was Lord Commissioner to the Treasury 1902—5.

FOX, Captain CECIL H. Captain of H.M.S. *Amphion* which sank German minelayer *Königin Luise* on Aug. 5th, 1914. Afterwards commanded *Undaunted*, new light cruiser, which with 4 destroyers sank 4 German destroyers off Dutch coast on Sat., Oct. 17, 1914.

FRANCIS JOSEPH, Emperor of Austria and King of Hungary. Born Aug. 18th, 1830

Proclaimed Emperor 1848; crowned King of Hungary 1867. Married in 1854 the late Empress Elizabeth of Bavaria. It is believed he alone could have kept Austria and Hungary federally united. His long reign has been marked by tragedy and personal sorrow, culminating in the murder of the Heir Apparent, the Archduke Franz Ferdinand and the Duchess at Sarajevo, June 28th, 1914, and the great war which followed his demands on Serbia.

FREDERICK WILLIAM, Crown Prince of Germany. Born 1882. Always a firebrand. Commands a division of the German Army operating on the Western front. Distinguished for general insubordination to parental authority, and, since the outbreak of war, for looting French chateaux. Held accountable for more than one costly failure to break through the French line.

FRENCH, F.-M. SIR JOHN, K.C.M.G., G.C.B., G.C.V.O., LL.D. Born 1852. Chief of the British General Staff; commands the British Forces in France. Served as midshipman; entered army 1874; Egyptian campaign 1884-5; specialised in cavalry tactics and acquired reputation as one of the finest cavalry leaders in the world; as Major-Gen. commanded Cavalry Division in Natal, 1899 (S.A. War), and distinguished himself in the relief of Kimberley. Inspector-General of the Forces 1907-11.

GALLIENI, General J. Appointed Military Governor of Paris when threatened by the German advance, autumn 1914. Born 1849. Has held various military commands in the French Colonies.

GEORGE V. King of Great Britain and Ireland and of the British Dominions beyond the Seas, Emperor of India.

Born June 3, 1865. Trained for Navy in *Britannia*; midshipman 1883; lieutenant commanding gunboat *Thrush* on the N. American station 1890; Commander 1891. Married Princess Victoria Mary of Teck 1893. Rear-Admiral 1901. The first British sovereign to have extensive personal knowledge of the Dominions. Visited the Colonies in the *Bacchante* as a midshipman 1883, opened the first parliament of the Australian Commonwealth 1901, and visited India 1905, and for the Coronation Durbar in 1911. King George has the happiest gift for pregnant brevity in public speech. On his return from the tour of 1901 he uttered the famous phrase: "Wake up, England"; on his visit to Munition workers in the Midlands in July last he electrified them by declaring that "an increased output of munitions of war made but one result certain—Victory."

GIESL, Freiherr von. Austrian Minister at Belgrade at beginning of war; delivered the formal note to the Serbian Govt. on July 23rd, embodying the Austrian demands of which Sir Edward Grey said: "I had never before seen one State address to another independent State a document of so formidable a character."

GIOLITTI, GIOVANNI. Born Mondovi, 1842. Minister of Treasury 1889-90; Premier 1892-4, 1903-5, and 1906-1909. The effort to form a Peace Cabinet in May, 1915, with him as leader resulted in riotous protests from the people. "A shrewd, unscrupulous, Italian Tammany leader," Dr. Dillon calls him.

GOLTZ, F.-M. Count KOLMAR VON DER. Served in the war of 1870, and afterwards in Turkey as instructor of the Ottoman Army. Planned the

campaign which resulted in the Sultan's victory over Greece in 1897. Commands the 1st Turkish Army near Constantinople. Called "the most eminent pupil of von Moltke."

GOREMYKIN, M. Prime Minister of Russia. Agitation started in September for his removal, on ground that he took decisions as to conduct of the war without consulting his colleagues.

GOSCHEN, Rt. Hon. Sir WM. EDWARD, G.C.B., G.C.M.G., C.V.O., etc. Born 1847. In the Diplomatic Service at Buenos Aires, Constantinople, Peking, Washington and other capitals; Ambassador at Vienna 1905—8. British Ambassador at Berlin from 1908 to beginning of the war.

GOURAUD, General. Took the post of Commander-in-Chief of French forces at the Dardanelles in May in place of General D'Amade, who fell ill. Was severely injured by fragments of a shell while visiting the wounded at an ambulance station. For services to British forces was made G.C.M.G. in August.

GREY, Sir EDWARD, M.P., K.G., P.C., D.L., etc. Secretary of State for Foreign Affairs since 1905. Born 1862. Under-Sec. for Foreign Affairs 1892—5. Used his utmost efforts to avoid war, and his masterly speeches in the House in August, 1914, are among the famous utterances of English history. To him was due the Treaty of London, 1913, which concluded the Balkan struggle. The intense hatred of Germany for him is testimony at once to his skill, his courage, and his integrity.

HADJIMISCHEFF, P. Bulgarian Minister to Great Britain. Was First Secretary to Bulgarian Legation in London for two years, then Minister

to Athens (1910). Has been Chief of Foreign Office in Sofia, and written on matters of international law.

HAIG, Lt.-Gen. Sir DOUGLAS, K.C.B., K.C.I.E., K.C.V.O. Born 1861. Served Soudan, 1898; South Africa, 1899; Inspector-General of Cavalry for India 1903—6; Chief of Staff, India, 1909—1902; G.O.C. Aldershot, 1912. Commands a corps of the British Army operating in France, and has distinguished himself by fine work in the field, as shown by General French's despatches.

HALDANE, Lord, F.R.S., M.A. Born 1856. Secretary of State for War 1905—12. Responsible for creation of the Territorial Force. Close Student of Schopenhauer. Has many friends in Germany in high places; became Lord Chancellor 1912, but resigned on formation of Coalition Government; much criticised on account of German associations and failure to warn Great Britain of German designs.

HAMILTON, General Sir IAN, G.C.B., D.S.O. Commander English forces in the Dardanelles. Born at Cortu, 1853. Served Afghan War, 1878—80; Boer War 1881, and many other campaigns. Chief of Staff to Lord Kitchener, 1901—2. Has many foreign decorations. Adjutant-General to Forces and Member of Army Council 1909—10; G.O.C. in-Chief Mediterranean, and Inspector-General Oversea Forces 1910—14. His first despatch, describing the famous landing of troops in Gallipoli, was an epic.

HARDINGE, Viscount, of Penshurst, G.C.B., K.C.V.O., C.B., G.M.S.I., etc. Viceroy of India since 1910. Born 1858. In Diplomatic Service at several capitals: Ambassador at St. Petersburg 1904—6; Perm.

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Under-Sec. of State for Foreign Affairs 1906—10.

HEDIN, SVEN ANDERS. Swedish geographer. Has written many travel - books dealing chiefly with Asia. Held in high esteem in England as a traveller, but has suffered in popularity through his pro-German views and his book: "With the German Armies in the West."

HELFFERICH, Dr. KARL. Age 43. One of Germany's most successful financiers; Secretary to the Imperial Treasury, and Director of the Deutsche Bank. His speech in August on the forthcoming third big German War Loan attracted much attention. He said Germany was spending nearly £100,000,000 per month and intended to make her enemies carry the load the war had imposed. He prophesied they would be "smashed up on the strength of the German people which is as hard as steel."

HENDERSON, ARTHUR. M.P. President of the Board of Education in the Coalition Cabinet. Born 1863. Chairman of Labour Party 1908—1910. Solid, practical, and constructive.

HENDERSON, Maj.-Gen. Sir DAVID, K.C.B., D.S.O. Director-General of British Aeronautics. Commands the British Flying Corps. The detailed reports of his aviators were invaluable in detecting the advances of von Kluck on Paris and Sir John French has borne constant testimony to their great service since. Born 1862. Served in Soudan and the S.A. War.

HINDENBURG, General VON. A bold strategist, with special knowledge of the Masurian Lakes, an idol of the German people. Was in retirement at beginning of war, but was recalled to deal with the Rus-

sian advance in East Prussia.

HOETZENDORF, Gen. CONRAD VON. Austrian Chief of Staff. Promoted to General on June 29th, 1915, in recognition of his "capture" of Lemberg. Reorganised the Army on the Prussian model.

HOLMES, Col. WILLIAM, D.S.O., V.D. Commandant of the Australian Expeditionary Force which took German New Guinea in September, 1914; temporary Governor of the captured province. By August 17th (thirteen days after war was declared), the force, consisting of a battalion of infantry, two sections of machine-guns, a signalling section, and a complement of the A.M.C., had been organised, clothed, armed and equipped, the majority being raw recruits.

HORTON, MAX K., D.S.O. Commander of Submarine E9; has been a veritable thorn in the side of the German navy. In E9 led British Fleet into Heligoland Bight, Aug. 28th; in Sept. torpedoed the cruiser *Hela* in North Sea; in Oct. sank German destroyer S126; on July 2nd, 1915, torpedoed German battleship *Pommern* in the Baltic.

HUGHES, Major-Gen. Sir SAMUEL, K.C.B. Minister of Defence, Canada. Born Ontario, 1853. Lecturer in English, Toronto Collegiate Institute, 1885. Served in S.A. War 1899—1900. Visited England with Sir Robert Borden in July, 1915. Made K.C.B. in recognition of Imperial services in organising Canadian troops.

HUNTER - WESTON, Major-Gen., C.B., D.S.O. Commander of the 29th Division of troops from India and the Colonial Garrisons landing at the Dardanelles, April, 1915. Born 1864. Served in many campaigns and expeditions; in

S.A. War Chief Staff Officer to General French; commanded several cavalry movements in the advance on Pretoria.

HUSSEIN I., Prince. Sultan of Egypt, appointed by the British Government in December, 1914, on deposition of Abbas Hilmi. Second son of Ismail Pasha. Educated in Paris. Has held many high administrative positions, beginning as Inspector-General of Upper and Lower Egypt in 1871.

INGENHOHL, Admiral VON. Commanding the German "High-Seas" squadron. Reported to have been superseded by Admiral von Pohl, on account of disapproval of policy of keeping fleet in Kiel Canal. Born 1857.

IRMANOFF, General. Commanding 3rd Caucasian (Russian) Corps on Germany's eastern frontier; began to retire before von Mackensen in June, 1915.

ISHIL, Baron. Minister for Foreign Affairs in re-formed Japanese Government, August, 1915; late Japanese Ambassador in France; says "the lot of Japan" is bound up with the Triple Entente powers, and relations must be strengthened after the war.

IVANOFF, General. Commanding troops occupying Przemyśl; evacuated it June 3rd, 1915, when "the last shell was spent."

JACKSON, Sir HENRY BRADWARDINE, K.C.B., K.C.V.O., F.R.S., M.I.E.E. First Sea Lord in the Coalition Cabinet in place of Lord Fisher. Born 1855. Was Head of the Naval War College; later Head of the Naval War Staff at the Admiralty. Has done good work for the Navy in the development of torpedo service and wireless telegraphy.

JAGOW, Herr VON. German Minister for Foreign Af-

fairs since 1913. Born 1863. Attaché at Rome 1895; Sec. at The Hague 1900. First Sec. at Rome 1901, Minister 1907, Ambassador 1908. In April, 1913, when asked whether in the event of war with France Germany would respect Belgian neutrality he replied: "Belgian neutrality is guaranteed by international conventions, and Germany is resolved to abide by those conventions."

JELlicoe, Sir JOHN RUSHWORTH, K.C.B., K.C.V.O., etc. Commander of the Grand Fleet. Born 1859. Entered Navy 1872; served in Egyptian War 1882. Was on the *Victoria* when she was rammed by the *Camperdown* off Tripoli 1893; served in China 1898-1901; Director Naval Ordnance 1905-7. Rear-Admiral 1907; a Lord Commissioner of the Admiralty and Controller of the Navy 1908-1910; commanded Atlantic Fleet, 1910-11. Second Sea Lord of the Admiralty 1912.

JOFFRE, General. Chief of French General Staff. Born at Rivesaltes (Pyénées-Orientales), Jan. 12th, 1852. Served as officer of engineers in the war of 1870; planned and constructed fortifications in France and her colonies, and saw active service in the Niger campaigns. Became Col. in 1897; Brigadier-Gen. 1901; Commander of 2nd Army Corps 1909, and Inspector of Military Schools; Vice-Pres. of the Superior War Council 1911. French defences and army organisation in last few years largely result of his work. At the famous turning-point of the German advance, on the banks of the Marne, he sent to every regiment the message "Stand or die." Cool, energetic, unostentatious.

JONESCU, TAKE. Distinguished Roumanian Conserva-

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tive statesman. Favours taking part in the War on the side of the Allies.

KATO, Baron, late Japanese Minister for Foreign Affairs. Born 1860. Director of Banking and Finance, 1891-4; Envoy Ext. and Minister Plenipotentiary at the Court of St. James's, 1894-9; Minister for Foreign Affairs, 1900-1, and 1906. Regards Alliance with Britain as guiding principle of foreign policy of Japan.

KITCHENER, Earl of Khartoum, G.C.I.E., G.C.S.I., G.C.B., G.C.M.G., etc. Appointed Secretary of State for War Aug. 7th, 1914. Born 1850. Entered Royal Engineers 1871; took part in many campaigns and expeditions. As Sirdar of Egyptian Army reconquered Soudan 1898; Commander-in-Chief South Africa 1900-2; Commander-in-Chief India 1902-9. Member of Committee for Imperial Defence 1910. British Agent and Consul-General Egypt 1910-14. Made his first speech in the House of Lords as Sec. of State for War on Aug. 25th, 1914. New forces raised in response to his appeal for men will always be known as Kitchener's Army. A great organiser.

KLUCK, General VON. Commander of the First German Army; marched on Louvain in August, 1914; occupied Brussels Aug. 19th; in Command of the forces which drove back the Allies almost to within sight of Paris, when he was suddenly compelled to retreat. Defeated at the battle of the Marne.

LANSING, Robert. Sec. of State, U.S.A., succeeded W. J. Bryan, May, 1915. Born 1864. Studied for the Bar; acted as Counsel in Behring Sea Arbitration 1892, and in the Alaskan Fisheries Arbitra-

tion at The Hague, 1903. Quiet, efficient, forceful.

LAW, Rt. Hon. ANDREW BONAR, LL.D., M.P. Colonial Secretary in the Coalition Government. Elected Unionist Leader 1913. Born New Brunswick, 1858. A Glasgow iron merchant. Parliamentary Sec. Board of Trade 1902-6.

LEE, Rear-Admiral C. L. VAUGHAN, Director of Naval Air Service. Served as midshipman in Egyptian War; was first Assistant Director of Naval Ordnance, then of Naval Intelligence. Has specialised in torpedo warfare.

LEMAN, General. Born 1852. Commandant of Liège during the siege of that city, which after brief but heroic defence fell August 15th, 1914, when he was stunned by an exploding shell and became a prisoner in General von Emmich's hands. Well known as mathematician and scientist.

LICHNOWSKY, Prince, German Ambassador to Great Britain 1912-14. Born 1860. Assured Sir Edward Grey just before war was declared that "Germany will under no pretence whatever annex Belgian territory." His efforts to preserve peace were defeated by the precipitate action of the German Military Party.

LIMPUS, Rear-Admiral A. H., C.B. Naval Adviser to Turkish Government prior to outbreak of war. Left Constantinople Sept. 23rd, 1914. Born 1863. Served in several campaigns—Egypt, S. Africa, China; Rear-Admiral Home Fleet, 1910.

LLOYD-GEORGE, Rt. Hon. DAVID, D.C.L., M.P. Born 1863. Solicitor, 1884; President Board of Trade 1905-1908. Chancellor of the Exchequer 1908-15; took the newly-formed office of Minister of Munitions in Coalition

Government, May. Has been one of the great revelations of the crisis through which the Empire has passed. A party man all his life, he has proved himself a patriot before all else.

LONG, Rt. Hon. WALTER H., M.P., F.R.S., D.L., LL.D. Born 1854. Pres. Board of Agriculture 1895-1900; Pres. Local Govt. Board 1900-5; Chief Sec. for Ireland 1906. President Local Govt. Board in Coalition Cabinet, in which capacity he made himself responsible for the National Register taken August, 1915.

LYTTELTON, Rev. Hon. EDWARD, M.A., D.D. Head Master Eton. Born 1855. Distinguished authority on education, and member of many important Committees on that subject. Has raised controversies at various times, the latest being in March, 1915, when he suggested abandonment of Gibraltar and urged that Germany should not be humiliated.

MACDONALD, RAMSAY, M.P. Born 1866. Leader of the Labour Party. Published Aug. 13th, 1914, a "manifesto" indicting the policy of the Government in the matter of the war. Attained a brief notoriety.

MACKENSEN, Field-Marshal VON. In command of Austro-German army's operations against the Russians on Germany's eastern frontier. "A younger and more scientific Hindenburg." Recaptured Przemyśl and Lemberg early June, 1915.

MACNAMARA, Dr. T. J., M.P. North Camberwell, Parliamentary Sec. to the Admiralty in the Coalition Cabinet. Born 1861. President N.U. of Teachers 1896. Parl. Sec. Local Govt. Board 1907. Student of social and educational questions.

MADDEN, Rear-Adm. CHARLES E., C.V.O. Chief of Staff to Sir John Jellicoe, his brother-in-law. Entered Navy 1875. Sub-Lieut. in Egyptian War 1882; Naval Assistant to Controller of Navy 1905; afterwards Captain of the *Dreadnought*, Private Sec. to First Lord of the Admiralty, A.D.C. to the King, etc., and Rear-Adm. commanding 2nd Cruiser Squadron.

MAHOMED V., Sultan of Turkey. Born 1844. Proclaimed 1909.

MAUNOURY, General MICHEL JOSEPH. Chief of Staff to General Joffre. Born 1847. Member of Artillery Technical Committee and Consultative Committee on Explosives, 1908, and Director of War School.

MARITZ, Lt.-Col. SOLOMON GERHARDUS. Early in 1913 was placed in command of a military district in N.-W. of the Cape Province, and at outbreak of war at request of General Beyers, then Comt.-General, was appointed Lt.-Col. of Union forces. Conceived the idea of "liberating South Africa" and opened in 1912 communications with the Gov.-General of German S.-W. Africa, continuing his negotiations with the enemy until on Sept. 16th, 1914, the rebellion came to a head. Became a General in the German service. Defeated, he fled to German territory.

MAX, M. ADOLPHE. Burgomaster of Brussels. Refused at end of September, 1915, to furnish heavy fine levied upon the captured city; was arrested on Sept. 27th, by the German Military Governor, General Baume von Lüttwitz, and confined in a fortress.

McKENNA, Rt. Hon. REGINALD, P.C., M.P. Born 1863. Chancellor of the Exchequer in Coalition Govt. Financial

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Sec. to the Treasury, 1905; Pres. Board of Education, 1907—8; First Lord of the Admiralty, 1908—11. Home Secretary, 1911—15.

MENSDORF, Count A. D. Austro-Hungarian Ambassador to Britain from 1904 to beginning of war. Born 1861 at Lemberg. In the Diplomatic Service at Paris, St. Petersburg, and London.

MERCIER, Cardinal. Archbishop of Malines. Born 1851. In 1877 became Professor of Philosophy at the Little Seminary of Malines, and five years later inaugurated the Chair of Thomistic Philosophy, as the Abbé Mercier, at Louvain University. In 1886 became Head of the Higher Institute of Philosophy, and was made Archbishop in 1907. His famous pastoral address on patriotism, at the time of the occupation of Louvain, infuriated the Germans.

MILLERAND, M. Minister of War for France. Born 1859. Socialist.

MORANVILLE, SELLIERS DE, General. Chief of General Staff of the Belgian Army: second in command under King Albert.

MORLEY, Lord, M.A., F.R.S., LL.D., etc. Born 1838. Sec. of State for India 1905—10. Has written much on political and literary matters, the "Life of Gladstone" being his best known work. Retired from Cabinet at opening of war, being opposed to British intervention.

MUNRO-FERGUSON, Sir RONALD C., G.C.M.G. Gov.-General of Australia 1914. Born 1860. Lord of the Treasury 1894.

NICHOLAS I., King of Montenegro. Born 1841. Succeeded 1860, on the death of his uncle, who was assassinated. The Queen of Italy is his daughter.

NICHOLAS II., Tsar of Russia. Born 1868. His mother is sister to Queen Alexandra. Married in 1894 Princess Alix of Hesse-Darmstadt. Ascended throne 1896, crowned at Moscow. 5 children. His ideas on international policy led to the famous Conference at The Hague. An Admiral in the British Navy. Has proved himself the most liberal minded of autocrats. When Germans invaded Russia the Tsar placed himself at head of his armies in the field. By auspicious accident, step coincided with turn in the tide of retreat. Before leaving for the front (Sept. 5), said Duma had given him the only reply worthy of Russia: "War until Victory is complete."

NICHOLAS NICOLAIEVITCH, Grand Duke. Age 58. Took part in Russo-Turkish War and was Inspector-General of cavalry in Russo-Japanese war. Commander-in-Chief of the Russian Army, controlling the vast forces operating from the Baltic to the Bukovina until September, 1915, when on invasion of Russia by the Germans the Tsar himself took command. Grand Duke was made Governor-General and Commander-in-Chief in the Caucasus.

NICHOLSON, Commander W. L. BERTRAM. Commander of the *Cressy*, sunk while standing by the *Aboukir* in the North Sea, Sept. 22nd, 1915.

NORTHCLIFFE, Lord. Born 1865. Proprietor of many papers, including the *Daily Mail*, whose attack on Lord Kitchener in May, 1915, created a sensation. Principal proprietor of *The Times*.

NORTON, Commander REGINALD A. Commander of the *Hogue*, sunk while standing by the *Aboukir* in the North Sea, Sept. 22nd, 1915.

Who's Who in the War

OKA, General. Japanese Minister for War.

OKUMA, Count. Premier of Japan. Born 1838. Foreign Minister, 1888-89; Minister of Agriculture and Commerce, 1896-97; Prime Minister and Foreign Min., 1898. Founder of the Japanese Women's University.

DALL'OLIO, General. Under-Secretary of State for Arms and Munitions, Italy (a new post). "Was previously in charge of the Artillery Dept. at the War Ministry.

PAGE, WALTER HINES. American Ambassador in London. Born 1855. Edited the *Atlantic Monthly*, 1896-99; also edited the *World's Work*. Is a member of a noted American publishing house.

PARIS, General A., C.B. Commands Naval Division in the Dardanelles. Born 1861. Served in South African War. Commanded the Naval Force at Antwerp, autumn 1914.

PASHITCH, M. Premier of Serbia; has the reputation of being one of the wisest statesmen in Europe, and has done more than any other man to control Serbia's difficult and complicated relations with other countries during the last forty years. Is also Minister for Foreign Affairs.

PAU, General. Commander of the First French Army, holding the line of the Vosges. Born 1848.

PETER, I., King of Serbia. Born 1844. Ascended throne 1903 on the murder of Alexander I. Married the Princess Zorka of Montenegro. Three children. Was with the French Army in the war of 1870.

PICHON, STEPHEN, Ex-Minister for Foreign Affairs in France. In August wrote some remarkable articles showing the debt of the Allies to Great Britain, and pointing out that

Germany's indirect efforts to secure separate peace with Russia and France was significant tribute to British people and Government. "England may pride herself on being regarded as chief obstacle" to realisation of Germany's insatiable ambition, he said.

POINCARÉ, RAYMOND. President of the French Republic since 1911. Born 1860. Minister of Public Instruction 1893 and 1895; of Finance, 1894 and 1906. Prime Minister and Foreign Minister 1912. Author of several well-known works, and member of the French Academy.

PLUMER, Sir HERBERT C. O., Lieut. Gen., K.C.B. Temporary General (May 7, '15), Fifth Army Corps. Mentioned by Sir J. French in despatches with high praise for his excellent conduct of difficult operations in second battle of Ypres. Born 1857. Served in the Soudan; distinguished in South African War; Q.-M.-G. to the Forces, 1904.

POLIVANOV, General. Minister for War, Russia, taking office June 26th, 1915, on the resignation of M. Soukhomlinov. The Russian Ministry of War was re-organised at the end of June, a Munitions Dept. being formed similar to our own.

PORRO, General CARLO. Sub-Chief of Gen. Staff of the Italian Army. Born Bologna, 1854. Studied at Turin Military Academy; became Professor of Geography at the Milit. School, afterwards Director. For a short time (1905-6) Under-Sec. for War. Was offered post of Min. for War by Sig. Salandra in March, 1914, but declined because the Treasury refused to sanction the large expenditure he considered necessary.

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POURTALES, Count. German Ambassador at the Russian Court at opening of war.

PUTNIK, General. Chief of Staff, Serbian Army. To him may be attributed Serbia's successes in the recent Balkan Wars. Was taken prisoner in Vienna before war was declared, but released.

RADOSLAVOFF, M., Prime Minister of Bulgaria.

RADOVITCH, ANDRÉ. Ex-Prime Minister of Montenegro. Visited London in June, 1915, on a special mission from his Government to Great Britain and France regarding supplies of food and armament for the Mont. Army. Was received by Lord Kitchener on June 28th; also visited the Foreign Office.

REDMOND, JOHN, M.P. Born 1851. Leader of the Irish Nationalists. When serious trouble was imminent in Ireland, war broke out, and in a speech in Parliament on Aug. 4th, 1914, Mr. Redmond said: "We offer to the Government of the day that they may take their troops away, and that, if it is allowed to us in comradeship with our brethren in the North, we will ourselves defend the coasts of our own country."

RENNENKAMPF, General, P.C. VON. Commandant of 3rd corps of the Russian Army. Born 1854. Has held many military positions, including the command of cavalry, Cossack and Siberian regiments, and served in the Russo-Japanese War. Decorated with the 2nd degree of the Vladimir Order for distinguished service in the field, Sept. 1st, 1914. Said to have been dismissed by Grand Duke for failing to obey vital order in December, 1914, when Germans were in difficulties round Lodz.

REVENTLOW, Count. Editor of the *Deutsche Tageszeitung*. Carried on a sharp anti-American campaign in June; finally proceeding to extremes, he attacked the German Foreign Office for its attitude to America, and his paper was suppressed on June 22nd. Ex-Naval officer, and known as a naval expert.

ROBECK, Vice-Admiral J. M. DE. Commanding Eastern Mediterranean Fleet; co-operating with Sir Ian Hamilton in the Dardanelles. Born 1862. Entered Navy as cadet 1875. Rear Admiral 1911. His excellent despatch on landing on Gallipoli Peninsula (published only in August) is the sailor's counterpart of the story told by the British general.

RUNCIMAN, Rt. Hon. WALTER, LL.D., M.A. President of the Board of Trade. Born 1870. President Board of Education, 1908—11.

ROBERTSON, Sir WM., K.C.V.O., C.B., D.S.O. Chief of Staff to Sir John French. Born 1860. Rose from the ranks. Has seen active service in India, Chitral Expedition, S. A. War. Specialised in Oriental languages.

RUPPRECHT, Prince. Crown Prince of Bavaria. Reported to have ordered his army to take no British prisoners.

RUZSKY, General. Born 1850. Chief of Staff of 2nd Manchuria Army in war with Japan. One of Russia's great strategists. In the spring returned from the front owing to ill-health, but early in July again went on active service as Commander-in-Chief of the armies on the northern section of the frontier.

SALANDRA, Sig. Premier of Italy; age 60. As a statesman is ranked with Cavour and Crispi, loved by the people. Was in favour of neutrality of Italy; withstood the

blandishments of Prince von Bulow, and ultimately decided that war alone could secure Italian interests after long negotiations with Austria. Defended his action in a great speech in Rome, June 2nd. "In nine months of strenuous effort his Cabinet repaired the errors of 10 years' mismanagement." (Helen Zimmern, *Fortnightly Rev.*, July, 1915). Professor of administrative law.

SANDERS, General LIMAN VON. Commanding the Turkish forces in Gallipoli. Reported wounded, July 6, 1915. Received Ordre pour le Merite Kaiser in August.

SARRAIL, Gen. MAURICE. Commander-in-Chief of French forces in the Dardanelles, appointed early in August, 1915, in place of Gen. Gouraud (q.v.). Born 1857. Commanded 6th French Army Corps at outbreak of war; distinguished in Battle of the Marne; defender of Verdun.

SAZONOFF, M. Russian Minister for Foreign Affairs since 1910. Has been attached to the Embassies in London, Rome, and Paris. Made strong efforts for peace in the crisis of July, 1914.

SCHON, Baron W. VON. German Ambassador to Paris at opening of war.

SCOTT, Admiral Sir PERCY, Bart., K.C.B., K.C.V.O. Born 1853. Appointed in September 1915 to take charge of the anti-aircraft guns of London. Joined Navy 1866, and served in Ashanti, Egyptian, South African and China wars. Naval gunnery and signalling owe various inventions to him. Gun-carriages devised by him played leading part in Defence of Ladysmith (1899-1900). Predicted in June 1914 that submarines would make all Dreadnoughts out-of-date. With submarines and seaplanes, he

said, he would be prepared to close the North Sea and the Mediterranean to any fleet of battleships.

SEELEY, Colonel Rt. Hon. J. E. B., P.C., D.S.O., M.P. Born 1868. Served with Imperial Yeomanry in S. Africa 1900-1. Under-Sec. for the Colonies 1908-10; Under-Sec. of State for War 1911; Sec. of State for War 1912-14. Gold medal for saving life at sea from French Govt. 1891. Appointed to command of Canadian forces at the front.

SEITZ, DR., General. Imperial Governor of German South-West Africa and Commander of the forces. Surrendered unconditionally to Gen. Louis Botha on July 9th.

SIMON, Sir John, Kt., K.C.V.O., K.C., M.P. Home Secretary in the Coalition Govt. previously Solicitor-General. Age 42. President Oxford Union Society 1896. Distinguished Law Scholar.

SMITH, Rt. Hon. Sir F. E., K.C., M.P., M.A. Solicitor-General in Coalition Govt. Born 1872. Distinguished scholar in History and Jurisprudence; has written several works on political and legal matters. Won distinction both in the Courts and in Parliament: became popularly known as "F. E." At beginning of war was appointed Director of Official Press Bureau.

SMITH-DORRIEN, Sir HORACE. Commander of the Second Army Corps in France till spring 1915. Born 1858. Served in Zulu War, Egypt, Soudan, India, South Africa, etc. C-in-C. Aldershot 1907, and at opening of war. Sir John French's despatches bear witness to his skill and services.

SMUTS, General, K.C. Born 1870. State Attorney, Transvaal 1898; served in Boer War;

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Minister of Defence, South African Union; Gave Gen. Botha whole-hearted support in campaign against rebels and Germans.

SONNINO, Baron. SYDNEY. Italian Statesman. Born 1847. Responsible for Italian part of the Official Correspondence in the "Green Book." Six years in various legations and embassies. "Half a Briton and half a Jew." (Dr. Dillon *Fortnightly Review*, July, 1915).

SOUKHOMLINOV, General. Russian Min. for War, 1909 to June, 1915. Born 1848. Joined the Army in 1861; became C-in-C. of the Kieff district 1904. Entirely reorganised the Russian military system in the light of the lessons of the Japanese War. Has written much, sometimes under the assumed name of "Ostap Bondarenko." Fearless and self-reliant; abstains from alcohol and tobacco.

SPRING-RICE, Sir CECIL, K.C.M.G., G.C.V.O. British Ambassador to the U.S.A. Born 1859. In Diplomatic Service at Brussels, Washington, Berlin, etc., Persian Consul-General 1906; Envoy Extraordinary to Sweden 1908.

STURDEE, Rear-Admiral Sir FREDERICK D., C.M.G., C.V.O. Born 1859. Served Egyptian War 1882; Chief of Staff Mediterranean Fleet 1905-7; Channel Fleet 1907. Chief of Staff at the Admiralty till Nov., 1914. After the disaster to Sir C. Cradock's squadron in the Pacific was secretly despatched with a squadron to seek out Admiral von Spee; in battle off the Falkland Islands, Dec. 8th, sunk the *Gneisenau*, *Scharnhorst*, *Nürnberg*, and *Leipzig*.

STURCKH, Count. Austrian Premier.

SZAPARY, Count. Austrian Ambassador at Russian Court

at opening of war.

TENNANT, H. J., B.A. Under-Secretary for War since 1912. Born 1865. Private Sec. to Rt. Hon. H. Asquith 1892-95. Parly. Sec. to Board of Trade 1909-11.

THOMAS, M. ALBERT. Under-Sec. for War, France; Director of the Munitions Dept. organised in 'he spring. Born 1875. Was teacher of history in a Girls' High School before entering Parliament. Has studied labour conditions closely, and is—or was—a Socialist.

THOMAS, DAVID ALFRED, M.A., D.L., M.P. Colliery owner of South Wales; managing director of Cambrian Combine and other colliery companies. Born 1856. A Cambridge man. Sent as "a business man" to Canada and the U.S.A. to organise munition contracts, in June, 1915, at Mr. Lloyd-George's suggestion.

TIGHE, Major-General. Commanding British forces in East Africa.

TIRPITZ, Admiral VON. High Admiral of the German Navy, Sec. of State for the Imperial Marine, Chairman of the Committee for Maritime Affairs. Born 1849. Entered Navy 1865. Minister of State 1898. Is a member of the Prussian House of Peers. Resignation on question of submarine policy, reported Sept., 1915.

TISZA, Count. Premier of Austria-Hungary, succeeding Count Burian, who resigned on May 23rd when Italy declared war; was previously Premier of Hungary.

VANDERVELDE, E' MILE. Belgian Minister of State; Socialist. Member of Special Belgian Mission to U.S.A., Sept. 1914.

Who's Who in the War

VILLIERS, Sir FRANCIS, G.C.V.O., C.B., K.C.M.G. Envoy Extraord. and Minister Plenipotentiary to Belgium at opening of war. Born 1852.

VENIZELOS, E. K. Prime Minister of Greece in 1914. His expressed opinion that Greece should join the Allies in the war led to his resignation in the spring of 1915, M. Gounaris becoming Premier in his place. General Election in June gave him big majority; formed new Cabinet August, but resigned October owing to difference with the King as to part to be played by Greece. Born 1864.

WET, General CHRISTIAN DE. Born 1854. Served in Boer War of 1881; Commander-in-Chief of the Free State forces during the S.A. War. Minister for Agriculture, Orange River Colony, 1907. Took rebel side at the outbreak of war; was defeated by Gen. Botha Nov. 21; captured Dec. 1st, 1914. Tried for treason, sentenced, June 22, 1915, to 6 years imprisonment and a fine of £2,000.

WILLIAM II. German Emperor, King of Prussia, and Supreme War Lord. Born 1859. Succeeded his father in 1888. His belief in the mailed-fist argument has kept the other Great Powers watchful for the last 15 years. Takes Frederick the Great as his exemplar. Has been successful in undoing the work of Prince Bismarck; secured large overseas possessions and built up a big Navy only to plunge them all into the crucible at the instigation of the Prussian militaristic party.

WARRENDER, Vice-Admiral Sir GEORGE, K.C.B., K.C.V.O., C.B., M.V.O. Commander of the 2nd Battle Squadron, Commanded the British squadron which visited Kiel in June,

1914. Born 1860. With Naval Brigade in Zululand 1879.

WATT, Major A. F. Private Secretary to Sir John French. Yorkshire Hussars Yeomanry.

WILSON, WOODROW, Ph.D., Litt.D., LL.D. President of the United States of America. Born 1856. Gave up the law for the study of history and economy; has written several volumes on these subjects. Succeeded Mr. Roosevelt in the Presidential Chair. The sinking of the *Lusitania* on May 7th, 1915, placed him in very grave difficulty, and his endeavours to uphold the cause of humanity and law while avoiding war with Germany brought him into conflict on the one hand with Mr. Bryan and on the other hand with ex-President Roosevelt. "A man may be too proud to fight," he said on the morrow of the great crime.

WINGATE, Sir REGINALD, G.C.B., G.C.V.O., K.C.M.G., D.S.O., etc. Governor-General of the Soudan and Sirdar of Egyptian Army. Born 1861.

YOSHIITO HARUNOMIYA, K.G., Emperor of Japan. Born 1879. Succeeded 1912.

YOVANOVITCH, M. Serbian Minister to Austria at opening of war.

ZEPPELIN, Count FERDINAND. Born 1838. Took part in American War of Secession; served Franco-German War, 1870. Made his first ascent in a dirigible airship 1900. Has specialised in aeronautics, many of his first airships coming to grief. His name, owing to Zeppelin menace is equivalent of the "Boney" of the early years of the 19th century.

ZUPPELLI, Major-General. Italian Minister for War. A native of Istria, in Austrian Italy.

V.C's

"FOR MOST CONSPICUOUS BRAVERY"



IN no campaign have more gallant deeds been performed than in the present war. Many, no doubt, as commanders have pointed out, go unacknowledged because they have escaped notice. It is impossible to give a record of the D.S.O's and other awards which have been made for the superb courage and devotion of individuals among the millions engaged. They would fill a volume. France and Russia have both conferred honours on members of the British forces. We must content ourselves with brief summaries of the deeds of valour which secured 103 V.C's down to September 11, 1915. These summaries are like so many rays of light on a dark and sombre background, and poignant regret can only be felt that so many of the gallant spirits had fled before the award could reach them.

ACTON, Pte. A., 2nd Batt. Border Rgt. At Rouges Bancs, 21 Dec., '14, voluntarily went, with Pte. J. Smith, V.C., from his trench and rescued a wounded man who had been lying exposed against the enemy's trenches for 75 hours; same day again voluntarily left his trench, under heavy fire, to bring into cover another wounded man.

ALEXANDER, Lieut. Col. E. W., 119th Bty. R.F.A. At Elouges, 24 Aug., '14, against overwhelming odds saved all his guns, notwithstanding they had to be withdrawn by hand by himself and three other men. This enabled the retirement of the 5th Division to be carried out without serious loss. Subsequently rescued wounded man under heavy fire.

ANDERSON, Cornl. W., 2nd Batt. Princess of Wales's Own (Yorkshire Rgt.). At Neuve

Chapelle, Mar. 12, '15, led three men with bombs against large party of enemy who had entered our trenches; by his prompt and determined action saved what might have become serious situation. He threw his own bombs and those of his three men (who were wounded) amongst the Germans, then opened rapid rifle fire with great effect, notwithstanding he was quite alone.

ANGUS, Lance Corpl. W., 8th (Lanark) Batt. H.L.I. (T.F.). At Givenchy, June 12, '15, voluntarily left his trench and rescued a wounded officer near the enemy's position. In doing this he received some 40 wounds.

BARBER, Pte. E., 1st Batt. Grenadier Guards. At Neuve Chapelle, Mar. 12, '15, ran speedily in front of his grenade company and threw bombs with such effect that large

number of enemy at once surrendered. When grenade party reached Pte. Barber they found him alone and unsupported with enemy surrendering all about him.

BARTER, Colour Sgt. Maj. F., Special Reserve attd. 1st Batt. Royal Welsh Fusiliers. At Festubert on May 16, '15, when in the first line of the German trenches he called for volunteers to extend the line, and with eight men attacked the position with bombs, capturing three officers and 102 men and taking 500 yards of trenches. Also found and cut 11 mine leads.

BEACH, Sec. Lieut. J., 2nd Batt. Manchester Rgt. Near Festubert on Oct. 29, after two attempts to retake a trench which had fallen into the enemy's hands had failed, he voluntarily decided to try, with the assistance of one man, Sgt. J. Hogan, also awarded the V.C., and succeeded in killing eight of the enemy and taking 16 prisoners.

BELCHER, Lance Sgt. D. W., 1-5th (City of London) Batt. The London Rgt. (London Rifle Brigade). On early morning, May 13, '15, when in charge of a portion of advanced breastwork south of Wieltje—St. Julien Road, during very fierce and continuous bombardment which frequently blew in breastwork, Lance Sgt. Belcher, with mere handful of men elected to remain and endeavour to hold position after the troops near him had been withdrawn. Maintained position during the day, opening rapid fire on the enemy only 150 to 200 yards distant, whenever he saw them collecting for attack.

BENT, Drummer S. J., 1st Batt. East Lancs. Rgt. Near Le Gheer on the nights of 1, 2 Nov., after his Platoon and Section Commanders were

struck down, took command, and held the position. Previously distinguished himself on Oct. 22 and 24, by bringing up ammunition under heavy fire, and on Nov. 3 carrying wounded into cover.

BOYLE, Lieut. Com., E. C., R.N. In command of Submarine E14, dived under enemy mine-field and entered Sea of Marmora, April 27, '15, in spite of difficult currents and hostile patrols. Continued to operate in Straits and sunk two Turkish gunboats and one military transport.

BRADBURY, Captain EDWARD KINDER (deceased), "L" Bty. R.H.A. Gallantry and ability in organizing defence of "L" Battery at Keuy, Sept. 1.

BRODIE, Lieut. W. L., 2nd Batt. Highland L.I. Near Becelaere, Nov. 11, '14, for leading a charge which resulted in clearing enemy out of a portion of our trenches and in the capture of 51 prisoners.

BROOKE, Lieut. J. A. O., 2nd Batt. Gordon Highlanders. Near Gheluvelt on the 29 Oct., led two attacks on German trenches under heavy rifle and machine gun fire, regaining a lost trench at very critical moment. He was killed on that day. His coolness and promptitude prevented enemy from breaking through our line.

BUCKINGHAM, Pte. W., 2nd Batt. Leicester Rgt. Rescued wounded under heavy fire at Neuve Chapelle, Mar. 10-12.

BUTLER, Capt. J. F. P., K.R.R.C., attd. Pioneer Co., Gold Coast Rgt., W. A. Frontier Force. On Nov. 17, '14, with party of 13 men, went into thick bush and attacked the enemy, about 100, including several Europeans, defeated them, captured their machine-gun and many loads of ammunition. On Dec. 27, '14, on patrol duty, with few

men, swam Ekam River, which was held by enemy, alone in face of brisk fire, completed reconnaissance on further bank.

CAMPBELL, Lieut. F. W., 1st Canadian Batt. On June 15, during the action at Givenchy, took two machine-guns over the parapet, arrived at German first line with one gun, maintained position there, under very heavy rifle, machine-gun, and bomb fire, notwithstanding, almost whole of his detachment killed or wounded. When supply of bombs exhausted, advanced his gun still further to an exposed position, and, by firing about 1,000 rounds, succeeded in holding back the enemy's counter-attack. This very gallant officer subsequently died.

COSGROVE, Cpl. W., No. 8980, 1st Batt. Munster Fusiliers. Led his section with great dash during attack from beach to east of Cape Helles, on Turkish positions, on April 26, '15. Cpl. Cosgrove on this occasion pulled down posts of enemy's high wire entanglements, single-handed.

DANIELS, Col. Sgt. Maj. H., 2nd Batt. Rifle Brigade. On March 12 at Neuve Chapelle, when his Battalion, impeded in their advance by wire and very severe machine-gun fire he voluntarily rushed in front and cut wires with the assistance of Acting Corpl. Noble. Both were wounded, Noble subsequently dying.

DARRELL, Bty. Sgt. Maj. G. T. (Nov. 2, L.T.) "L" Bty. R.H.A. At Nery, Sept. 1, '14, in face of severe gun and machine gun fire at close range, he continued serving a gun until all ammunition had been spent, and after all officers had been killed or wounded.

DAST, JEMADAR MIR, I.O.M., attached 57 Wild's Rifles Frontier Force. At

Ypres on April 26, led a platoon attack, and afterwards, when all British officers had been killed or wounded, collected men and kept them under command until a retirement was ordered. He subsequently helped to carry eight British and Indian officers to safety, under fire.

DEASE, Lieut. M. J., (Late) 4th Batt. R.F. Although badly wounded he continued in command of machine guns at Mons, Aug. 23, subsequently dying of wounds.

DIMMER, Lieut. J. H. S., 2nd Batt. K.R.R.C. Served a machine gun at Klein Zillebehe, Nov. 12, '14, until shot five times and the gun was destroyed.

DOBSON, Lance Corpl. F. W., 2nd Batt. Coldstreams. At Chavanne (Aisne), Sept. 28, for bringing into cover on two occasions wounded men exposed to enemy's fire.

DOUGHTY - WYLIE, Lieut. Col. C. H. M., C.B., C.M.G., Headquarters Staff, Mediterranean Expeditionary Force. Organized and led, with the late Capt. Walford, V.C., an attack on the village of Seddel-Bahr in the Gallipoli Peninsula, after both the Brigadier General and Brigade Major had been killed. As result position deemed to be almost impregnable to infantry attacks was taken. Lieut. Col. Doughty - Wylie and Capt. Walford were both killed.

DRAIN, Driver J. H. C., 37th Bty. R.F.A. At Le Cateau, Aug. 26, '14, for helping to save guns under a heavy rifle fire 100 yards distant.

DREWRY, Midshipman G. L., R.N.R. Assisted Commander Unwin at work of securing lighters under heavy rifle and maxim fire. Was wounded in the head, but continued his work, and twice subsequently

attempted to swim from lighter to lighter with a line.

DWYER, Pte. E., 1st Batt. East Surrey Rgt. At Hill 60 on April 20, '15. When his trench was heavily attacked by German grenade throwers, he climbed on to the parapet, and, although subjected to a hail of bombs at close quarters, succeeded in dispersing the enemy by the effective use of his hand grenades. Earlier this day Pte. Dwyer left his trench, under heavy shell fire, to bandage wounded comrades.

FINLEY, Lance Corpl. D., 2nd Batt. Black Watch, Royal Highlanders. May 9, near Rue de Bois, led a bombing party of 12 men until 10 had fallen, then, after ordering the two survivors to crawl back, went to assist a wounded man and carried him 100 yards.

FISHER, Lance Corpl. F., 13th Canadian Batt. April 23, '15, in the neighbourhood of St. Julien, went forward with the machine gun, of which he was in charge, under heavy fire, and assisted in covering retreat of a battery, losing four men of his gun team. Later, after obtaining four more men, went forward again, and was himself killed while bringing his machine-gun into action, to cover advance of supports.

FORSYTH, Lieut. W. T., 1/9th Batt. Manchester Rgt. (T.F.). In Gallipoli Peninsula, Aug. 7, '15, when holding north-west corner of "Vineyard" was attacked and heavily bombed by Turks, who advanced time after time by three trenches which converged at this point, but he held his own, encouraging his men by exposing himself with utmost disregard to danger, and personally throwing bombs continuously for 41 hours. When detachment relieved after 24 hours, volunteered to

continue direction of operations. Three times during night, Aug. 8-9, was again heavily attacked, once Turks got over barricade, but, after shooting three with his revolver, led his men forward and recaptured it. When he rejoined battalion was choked and sickened by bomb fumes, badly bruised by fragment of shrapnel, and could barely lift his arm from continuous bomb-throwing.

Foss, Capt. C. C., D.S.O., 2nd Batt. Bedford Rgt. At Neuve Chapelle, March 12, '15, after the enemy had captured part of one of our trenches, and our counter-attack made with one officer and 20 men having failed (all but two of the party being killed or wounded in attempt), Captain Foss, on own initiative, dashed forward with eight men, under heavy fire, attacked enemy with bombs, and captured position, with 52 Germans occupying it.

FULLER, Lance Corpl. W. D., 1st Batt. Grenadier Guards. At Neuve Chapelle, March 12, '15. Seeing a party of the enemy endeavouring to escape along a communication trench he ran towards them and killed the leading man with a bomb; the remainder (nearly 50) finding no means of evading his bombs, surrendered to him. Lance Corpl. Fuller was quite alone at the time.

GARFORTH, Capt. C. E., 15th Hussars. At Harmignies, Aug. 23, '14, volunteered to cut wire and so enable his squadron to escape destruction. Later at Dammartin carried wounded man out of action, and on Sept. 3rd, when under machine gun fire, extricated his Sergeant from under dead horse and covered his retreat.

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GODLEY, Pte. S. F., 4th Batt. R.F. City of London Rgt. Served his machine gun under hot fire for two hours after being wounded at Mons, Aug. 23, '14.

GRENFEL, Capt. F. O., 9th Lancers. For gallantry in action at Andregnies, Belgium, Aug. 24, '14, against unbroken infantry and for assisting to save the guns of 119th Bty. R.F.A. during same day.

HALL, Colour Sgt. Major F. W., 8th Canadian Batt. April 14, '15, in the neighbourhood of Ypres, when a wounded man, lying some 15 yards from the trench called for help, Col. Sgt. Maj Hall endeavoured to reach him in the face of a very heavy enfilade fire. First attempt failed, and non-commissioned officer and private soldier who were attempting to give assistance were both wounded. Hall then made a second most gallant attempt and was in the act of lifting wounded man when he fell mortally wounded.

HARLOCK, Bom. E. G. (Now Sergeant), 113th Bty. R.F.A. On Sept. 15, '14, near Vendresse, when his battery was in action under severe fire, although twice wounded, he returned each time after his wounds had been dressed, in order to lay his gun.

HOGAN, Sgt. J., 2nd Batt. Manchester Rgt. Near Festubert on Oct. 29, accompanied Sec. Lieut. J. Beach in a gallant attempt, after two efforts had failed, to retake a trench which had fallen into the enemy's hands, with the result that the occupants of the trench were all killed or captured.

HAWKER, Capt. L. G., D.S.O., R.E. and R.F.C. On July 25, '15, when flying alone he attacked three German aeroplanes in succession. First managed eventually to escape,

second driven to ground damaged, and third, which he attacked at a height of about 10,000 feet, driven to earth in our lines, pilot and observer being killed. Personal bravery shown by this officer was of very highest order, as enemy's aircraft were armed with machine-guns, and all carried passenger as well as pilot.

HOLBROOK, Lieut. N. D., R.N. Dec. 13, in command of Submarine B11, entered Dardanelles in spite of very strong currents, and after diving under five rows of mines, torpedoed the Turkish Battleship *Messudiyeh*. Returned safely in spite of heavy gun fire and torpedo boat attacks.

HOLMES, Lance Corpl. F. W., 2nd Batt. King's Own (Yorkshire L.I.). At Le Cateau, Aug. 26, '14, carried wounded man into cover from an exposed position and later, taking the place of wounded driver, helped a gun out of action.

JACKA, Lance Corpl. A., 14th Batt. Australian Imperial Forces. On the night May 19-20, '15, at "Courtney's post," Gallipoli Peninsula, while holding a portion of a trench with four other men, was heavily attacked. When all except himself were killed or wounded, the trench was rushed and occupied by seven Turks. Lance Corpl. Jacka attacked them single-handed and killed the whole party.

JAMES, Sec.-Lieut. H., 4th Batt. Worcestershire Rgt. During operations in Southern Zone of Gallipoli Peninsula, June 28, when portion of regiment had been checked owing to all officers being put out of action, Sec.-Lieut. James, who belonged to neighbouring unit, entirely on own initiative, gathered body of men

and led them forward under heavy shell and rifle fire. Returned, organized second party, and again advanced. Gallant example put fresh life into attack. July 3, in same locality, headed party of bomb-throwers up Turkish communication trench, and, after nearly all his bomb-throwers killed or wounded, remained at head of trench and kept back enemy single-handed.

JARVIS, Lance Corpl. C. A., 57th Field Co. R.E. At Jennes, Aug. 23, worked one and a half hours under heavy fire in full view of the enemy and succeeded in demolishing a bridge.

JOHNSTON, Capt. W. H., R.E. At Missy, Sept. 14, although subjected to a hot fire all day he continued to work two rafts, bringing back wounded and forwarding ammunition, thus enabling brigade to maintain its position across the river.

JOTHAM, Capt. E., 51st Sikhs (Frontier Force). On Jan. 7, '15, at Spina Khaisora (Tochi Valley). Commanding a party of about a dozen North Waziristan Militia, was attacked in nullah and almost surrounded by some 1,500 tribesmen. He gave order to retire, and could have himself escaped, but sacrificed his life by attempting to effect the rescue of one of his men who had lost his horse.

KENEALLY, Pte. W. No. 1809, 1st Lincs. Fusiliers. (See Willis).

KENNY, Drummer W., 2nd Batt. Gordon Highlanders. On 23 Oct., near Ypres, rescued wounded men on five occasions under very heavy fire, having twice previously saved machine guns by carrying them out of action. On numerous occasions Drummer Kenny conveyed urgent messages under

very dangerous circumstances over fire-swept ground.

KEYWORTH, Lce. Corpl. L. J. (The Queen's, T.F.), 2nd Batt. London Rgt. At Givenchy, on the night of May 25-26, '15, after successful assault on German position by the 24th Batt., efforts were made by that unit to follow up their success by a bomb attack, during which 58 men out of 75 became casualties. Lance Corpl. Keyworth stood fully exposed for two hours on the top of the enemy's parapet and threw 150 bombs amongst enemy.

KHUDADAD, Sepoy, 129th Duke of Connaught's Own Baluchis. On Oct. 31 at Hollebeke, Belgium, when the officer in charge was wounded and one machine gun put out of action by shell, continued although himself wounded, working the remaining gun until all his comrades were killed.

LEAKE, Lieut. A. M., R.A.M.C., who was awarded the Victoria Cross, 13 May, '02, granted a clasp for most conspicuous bravery and devotion to duty throughout the present campaign, especially during the period 29 Oct.—8 Nov., '14, near Zonnebeke, when he rescued, whilst exposed to constant fire, a large number of wounded lying close to enemy's trenches.

LIDDELL, Capt. J. A., 3rd Batt. Argyll and Sutherland Highlanders, and R.F.C. On July 31, '15, on flying reconnaissance over Ostend-Bruges-Ghent right thigh being broken, which caused momentary unconsciousness; by great effort recovered partial control after machine had dropped nearly 3,000 feet; succeeded, although continually fired at, in completing his course, and brought aeroplane into our line—half an hour after he had been wounded. Difficulties ex-

perienced by this officer in saving machine, and life of his observer, cannot be readily expressed; control wheel and throttle control were smashed also under-carriage strut.

LUKE, Driver F., 37th Bty. R.F.A. Assisted Driver Drain, V.C. to save guns under very heavy rifle fire at close range At Le Cateau, Aug. 26, '14.

LYNN, Pte. J., 2nd Batt. Lancashire Fusiliers. At Ypres, May 2, when the Germans were advancing under cover of gas, Pte. Lynn, although almost overcome by fumes, continued to serve his machine-gun with great effect and checked the enemy's advance. He afterwards died from the effects of the gas.

MACKENZIE, Pte. J., Late 2nd Batt. Scots Guards. At Rouges Bancs, Dec. 19, rescued a severely wounded man from in front of German trenches, under very heavy fire, after a stretcher-bearer party had been compelled to abandon the attempt. Was killed whilst in the performance of a similar gallant act.

MALLESON, Midshipman W. ST. AUBYN, R.N. Assisted Commander Unwin, and after Midshipman Drewry had failed from exhaustion to get line from lighter to lighter, swam with it himself and succeeded. Line subsequently broke; he afterwards made two further but unsuccessful attempts at his self-imposed task.

MARINER, Pte. W., 2nd Batt. The King's Royal Rifle Corps. During violent thunderstorm on the night May 22, '15, left his trench near Cambrin; crept out through German wire entanglements to emplacement of a German machine gun which had been damaging our parapets and endangering our working parties.

Climbing on to the German parapet he threw a bomb in, under the roof of the gun emplacement and heard some groaning and the enemy running away. After about a quarter-of-an-hour heard some of them returning and climbed up on the other side of the emplacement and threw another bomb amongst them left-handed. Then lay still whilst the Germans opened a heavy fire on the wire entanglement behind him; ultimately crawled back to his own trench. Before starting out requested a sergeant to open fire on the enemy's trenches as soon as he had thrown his bombs. Rifleman Mariner was out alone for one and a half hours.

MARTIN, Lieut. G. G., D.S.O., 56th Field Company, Royal Engineers. At Spanbroek Molen, on March 12, '15, in command of a grenade throwing party of six rank and file. Although wounded early in the action, led his party into the enemy's trenches and held back their reinforcements for nearly two hours and a half until the evacuation of the captured trench was ordered.

MAY, Pte. H., 1st Batt. The Cameronians (Scottish Rifles). Near La Boutillerie, Oct. 22, '14, voluntarily endeavoured to rescue under very heavy fire, a wounded man who was killed before he could save him. On the same day carried a wounded officer a distance of 300 yards into safety while exposed to a very severe fire.

MOOR, Sec. Lieut. G. R. D., 3rd Batt. Hampshire Rgt. On June 5, '15, during operations south of Krithia, Dardanelles, a detachment of a battalion on his left, which had lost all its officers, was rapidly retiring before a heavy

Turkish attack. Sec. Lieut. Moor grasping the danger to the remainder of the line, dashed back over some 200 yards, stemmed the retirement, and recaptured the lost trench.

MORROW, Pte. R., 1st Batt. Princess Victoria's (Royal Irish Fusiliers). Near Messines on April 12, '15, rescued and carried successively to places of comparative safety, several men who had been buried in the debris of trenches wrecked by shell fire. Pte. Morrow did this on his own initiative and under very heavy fire.

NASMITH, Lieut. Com. M. E., R.N. In command submarines in the Sea of Marmora, succeeded in destroying one large Turkish gunboat, two transports, one ammunition ship, and three store ships, in addition to driving one store ship ashore. When he had safely passed the most difficult part of his homeward journey, returned to torpedo a Turkish transport.

NEAME, Lieut. P., R.E. On Dec. 19, near Neuve Chapelle, notwithstanding enemy's heavy rifle fire and bomb throwing, he succeeded in holding them back and rescuing all the wounded men whom it was possible to move.

NEGI, Rifleman GOBAR SING, 2nd Batt. 39th Garhwal Rifles. At Neuve Chapelle, March 10, was one of a bayonet party which succeeded in reaching a German trench, and was first man round each traverse, driving back the enemy until they surrendered. Was subsequently killed.

NEGI, NAIK DARWAN SING, 1st Batt. 39th Garhwal Rifles. On Nov. 23-24, near Festubert, when his battalion were engaged in retaking a trench, although wounded twice in the head and once in the arm,

kept in front rank in face of heavy fire.

NOBLE, Acting Corpl. C. R., late 2nd Batt. Rifle Brigade. Voluntarily went with Col. Sgt. Maj. H. Daniels, who was also awarded the V.C., to cut wire entanglements which were holding up his battalion, under severe machine gun and rifle fire. He died from his wounds.

O'LEARY, Lance Corpl. Michael, 1st Batt. Irish Guards. At Cuinchy on Feb. 1, '15, when forming one of the storming party which advanced against the enemy's barricades, he rushed to the front and himself killed five Germans who were holding the first barricade, after which, he attacked a second barricade about 60 yards further on, which he captured, after killing three of the enemy and making prisoners of two more. He thus practically captured the enemy's position by himself and prevented the rest of the attacking party from being fired upon.

O'SULLIVAN, Capt. G. R., 1st Batt. Royal Inniskilling Fusiliers. During operations south-west of Krithia, Gallipoli Peninsula, on night July 1-2, when was essential portion of trench which had been lost should be regained, Capt. O'Sullivan, although not belonging to troops at this point, volunteered to lead party of bomb-throwers to effect recapture. His inspiring example resulted in recapture of trench. On night June 18-19 saved critical situation in same locality.

PASS, Lieut. F. A. DE, late 34th Prince Albert Victor's Own Poona Horse. Near Festubert on 24 Nov., entered a German sap and destroyed a traverse in the face of the enemy's bombs and subse-

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quently rescued, under heavy fire, a wounded man who was lying in the open. Lieut. de Pass lost his life on this day in a second attempt to capture the sap which was re-occupied by the enemy.

RANKIN, Capt. H. S., R.A.M.C. For attending wounded under fire at Haut-vesnes, Sept. 19, and for attending wounded after his thigh and leg had been shattered, an injury to which he succumbed.

RENDLE, Bandsman T. E., 1st Batt. Duke of Cornwall's L.I. Nov. 20, near Wulverghem, attended wounded under very heavy shell and rifle fire and rescued men who had been buried in trenches.

RHODES-MOORHOUSE, Sec. Lieut. W. B., Special Reserve, Royal Flying Corps. On Apl. 26, '15, flew to Courtrai and dropped bombs on the railway line near that station. On starting the return journey he was mortally wounded, but succeeded in flying 35 miles to his destination at a very low altitude and reported the successful accomplishment of his object.

RICHARDS, Sgt. A. No. 1293, 1st Lancs. Fusiliers. (See Willis).

RICHE, Commander H. P., R.N. Nov. 28, when in command of searching and demolition operations at Dar-es-Salaam, East Africa, and although severely wounded several times, continued his duty, inspiring all, until wounded for the eighth time and rendered unconscious.

RIVERS, Pte. J. Late 1st Batt. Notts and Derby Rgt. At Neuve Chapelle, March 12, on own initiative crept to within a few yards of enemy massed on flank of an advanced company of his bat-

talion and hurled bombs, causing the enemy to retire. He performed a similar act again during the same day, forcing the enemy to withdraw again; on this occasion he was killed.

ROBINSON, Lieut. Com. (now Commander) E. G., R.N. Lieut. Com. Robinson on Feb. 26 advanced alone, under heavy fire, into enemy's gun position, which might well have been occupied, destroyed a four-inch gun, returned for another charge with which second gun was destroyed. would not allow members of his demolition party to accompany him, as their white uniforms rendered them very conspicuous. Lieut. Com. Robinson took part in four attacks on mine-fields—always under heavy fire.

ROBSON, Pte. H. H., 2nd Batt. Royal Scots, Lothian Rgt. Near Kemmel on 14 Dec., '14, during an attack on the German position, he left his trench under very heavy fire and rescued a wounded non-commissioned officer; subsequently made attempt to bring another wounded man into cover, under severe fire; in this attempt he was wounded, but persevered until rendered helpless by being shot a second time.

ROCHFORD, Sec.-Lieut. G. A. B., Special Reserve, 1st Batt. Scots Guards. In trenches between Cambrin and La Bassée, Aug. 3, '15, at 2 a.m., German trench mortar bomb landed on side of parapet of communication trench in which he stood, close to small working party of his battalion. He might easily have stepped round corner into perfect safety; but, shouting to his men to look out, rushed at bomb, seized it, and hurled it over parapet, where

it exploded. Presence of mind and courage saved many lives.

ROUPELL, Lieut. G. R. P., 1st Batt. East Surrey Rgt. On April 20, '15' he commanded a company of his battalion in a front trench on Hill 60, which was severely bombarded throughout the day. Though wounded in several places he remained at his post and led his company in repelling a strong German assault. During a lull he had his wounds hurriedly dressed, and then insisted on returning to his trench, which was again being subjected to severe bombardment. Towards evening, his company being dangerously weakened, he went back to battalion headquarters, represented the situation to his commanding officer and brought up reinforcements, passing backwards and forwards over fire-swept ground. With these reinforcements he held position until his battalion was relieved next morning. This young officer was one of the few survivors of his company.

RIPLEY, Capt. J., 1st Batt. Black Watch (R.H.). At Rue de Bois, May 9, he was the first man of his battalion to ascend enemy's parapet. Directed the attackers to gaps in the wire and after leading his section through a breach established himself in the enemy's second line. In the attack he was severely wounded in the head.

REYNOLDS, Capt. D., 37th Bty. R.F.A. Saved two guns under heavy fire at Le Cateau, Aug. 24, '14. At Risseloup, Sept. 9, reconnoitred at close range and discovered the position of hostile artillery holding up British advance, thus enabling his battery to silence it. Wounded Sept 15, '14.

SCRIMGER, Capt. F. A. C., Canadian Army Med. Service. Medical officer, 14th Batt. Royal Montreal Rgt. On April 25, '15, in the neighbourhood of Ypres, when in charge of an advanced dressing station in some farm buildings which were being heavily shelled, he directed under heavy fire, the removal of the wounded, and himself carried a severely wounded officer out of a stable in search of a place of greater safety. When unable alone to carry this officer further he remained with him under fire till help could be obtained. During the very heavy fighting, April 22-25, displayed, day and night, the greatest devotion to duty amongst the wounded.

SHARPE, Acting Corpl. C., 2nd Batt. Lincoln Rgt., at Rouges Bancs, May 9, '15, when in charge of a blocking party was first to reach enemy and succeeded in clearing their trench with bombs; by this time all his party had been killed or wounded, but joined by four other men, he again bombed the enemy and gained another trench 250 yards long.

SOMERS, Sgt. J., No. 10512, 1st Batt. Royal Inniskilling Fusiliers. On night July 1-2, in Southern Zone of Gallipoli Peninsula, when, owing to bombing, some of our troops had retired from sap, remained alone on the spot until a party brought up bombs. Then climbed into Turkish trench, and bombed Turks with great effect. Later on advanced into open under very heavy fire and held back enemy by throwing bombs into their flank until barricade had been established. During this period he frequently ran to and from our trenches to obtain fresh supplies of bombs.

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Largely instrumental in effecting recapture of portion of trench which had been lost.

SMITH, Actg. Cpl. I., No. 168, 1st Batt. Manchester Rgt. On April 26, '15, near Ypres, left his Company on his own initiative, went well forward towards enemy's position to assist severely wounded man, whom he carried a distance of 250 yards into safety, exposed whole time to heavy machine-gun and rifle fire. Subsequently displayed great gallantry, when casualties were very heavy, in voluntarily assisting to bring in many more wounded men.

SMITH, Pte. J., 3rd Batt. Border Rgt. (Attached 2nd Batt). On Dec. 21, at Rouges Bancs, voluntarily went with Pte. Abraham Acton, V.C., from his trench and rescued a wounded man who had been lying exposed against the enemy's trenches for 75 hours; on the same day again voluntarily left his trench under heavy fire to bring into cover another wounded man. He was under fire for 60 minutes whilst conveying wounded into safety.

SMITH, Lieut. J. G. 15th Ludhiana Sikhs Indian Army. Near Richebourg, L'Avone, May 18, '15, accompanied by ten volunteers, conveyed 96 bombs to within 20 yards of the enemy's position after two other parties had failed.

TOMBS, Lance Corpl. J., 1st Batt., The King's (Liverpool Rgt.). Near Rue du Bois, June 16, '15. On own initiative crawled out repeatedly under very heavy shell and machine gun fire to bring in wounded men lying about 100 yards in front of our trenches. Rescued four men, one of whom he dragged back by means of a rifle-sling placed round his own

neck and the man's body. This man so severely wounded that, unless immediately attended to, he must have died.

TOLLERTON, Pte. R., 1st Batt. Queen's Own Cameron Highlanders. On Sept. 14, '14, at battle of the Aisne, carried wounded officer under heavy fire as far as he was able into a place of greater safety; then, although himself wounded in the head and hand, struggled back to the firing line where he remained till his battalion retired, when he returned to the wounded officer and lay beside him for three days until both rescued.

UNWIN, Comdr. E., R.N. In transport River Clyde, observing lighters which were to form bridge to the shore had broken adrift, he left the ship, and, under murderous fire, attempted to get lighters into position. Worked on until, suffering from effects of cold and immersion, was obliged to return to ship, where he was wrapped up in blankets. Having in some degree recovered, returned to his work against doctor's order and completed it. Was later attended by the doctor for three abrasions caused by bullets, after which he again left ship, this time in lifeboat, to save some wounded men lying in shallow water near beach. Continued at this heroic labour under fire until forced to stop through exhaustion.

UPTON, Corpl. J., 1st Batt. Sherwood Foresters, Notts and Derby Rgt. Near Rouges Bancs, May '9, '15, repeatedly rescued wounded men close to enemy's position. Also showed great gallantry in attending wounded in exposed position.

VALLENTIN, Capt. J. F., 1st Batt. South Staffordshire Rgt. On 7 Nov., '14, at Zillebeke, when leading attack

against Germans under very heavy fire was struck down, and on rising to continue the attack, was immediately killed. Capture of enemy's trenches which followed was in a great measure due to confidence the men had in him, as result of many previous acts of bravery.

WALFORD, Capt. G. N., Brigade Maj., Royal Artillery, Mediterranean Expeditionary Force. April 26, subsequent to a landing having been effected on the Gallipoli Peninsula, during which both Brigadier Gen. and Brigade Maj. had been killed, Lieut. Col. Doughty-Wylie and Capt. Walford organized and led an attack through and on both sides of the village of Sedd-el-Bahr, on the Old Castle at the top of the hill inland. Enemy's position was very strongly held and entrenched, and defended with concealed machine guns and pom-poms. Was mainly due to the initiative, skill and great gallantry of these two officers that attack was complete success. Both killed in moment of victory.

WARNEFORD, Flight Sub-Lieut. R. A. J., R.N. Attacked and destroyed a Zeppelin between Ghent and Brussels at a height of 6,000 feet. Dropped six bombs, and as a result of the explosion of the Zeppelin his Morane monoplane turned upside down. Succeeded in righting the machine, but was obliged to land in enemy country, where he restarted his engine and returned safely. Killed shortly afterwards in a trial flight.

WARNER, Pte. E., 1st Batt. Bedfordshire Rgt. Near Hill 60, May 1, after a trench had been evacuated by us during a gas attack he entered it and, single-handed, attempted to prevent the enemy

taking possession. Relief impossible owing to the gas, so he returned and, when the fumes had cleared led a party which successfully held the trench. Died subsequently from effects of gas.

WHEELER, Major G. G. M., late 7th Haryana Lancers, Indian Army. At Shaiba, Mesopotamia, April 12, asked permission to take out his squadron and attempt to capture flag, which was centre point of group of enemy firing on one of our picquets. Attacked enemy's infantry with lance. Retired while enemy swarmed out of hidden ground and formed excellent target to our R.H.A. guns. April 13, '15, led his squadron to attack of "North Mound." Was seen far ahead of his men riding single-handed for enemy's standards. Was killed on the Mound.

WILLIAMS, Able Seaman W. C. O.N. 186774 (R.F.R. B. 3766). Held on to a line in water for over an hour under heavy fire, until killed.

SAMSON, Seaman G. M., R.N.R., O.N. 2408A. Worked on lighter all day under fire, attending wounded and getting out lines; eventually dangerously wounded by maxim fire.

WILLIS, Capt. R. A., 1st Lancashire Fusiliers. On April 25, '15, three companies and the Headquarters 1st Batt. Lancashire Fusiliers, in effecting landing on Gallipoli peninsula to west of Cape Helles, were met by very deadly fire from hidden machine-guns, which caused great number of casualties. Survivors, however, rushed up to and cut wire entanglements, notwithstanding terrific fire, and, after overcoming supreme difficulties, cliffs were gained and position held. Among many very gal-

lant officers and men engaged in this most hazardous undertaking, Capt. Willis, Sgt. Richards, and Pte. Keneally have been selected by their comrades as having performed the most signal acts of bravery.

WILLSON, Pte. G., 2nd Batt. Highland L.I. Sept. 14, '14, near Verneuil, accompanied by one man, attacked hostile machine gun. When the man was killed he continued attack alone. After shooting an officer and six men, captured gun.

WOOLLEY, Sec. Lieut. G. H., 9th (County of London) Batt., The London Rgt. (Queen Victoria's Rifles), T.F. On Hill 60 during night of Apl. 20—21, '15, although only officer on the Hill at the time, and with very few men, successfully resisted all attacks on his trench, and continued throwing bombs and encouraging his men until relieved.

WRIGHT, Capt. T., R.E. At Mons, Aug. 23, '14, twice attempted to blow up bridge, although subjected to heavy

fire and wounded. Was mortally wounded at Vailly, Sept. 14, '14.

WOODROFFE, Sec.-Lieut. S. C., late 8th Batt. Rifle Brigade (the Prince Consort's Own). On July 30, '15, at Hooge, enemy having broken through centre of our front trenches, consequent on use of burning liquids, this officer's position was heavily attacked from flank and rear; he managed to defend his post until all his bombs were exhausted, and then skilfully withdrew his remaining men. Immediately led his party forward in counter-attack, and was killed whilst cutting wire obstacles in open.

YATE, Maj. C. A. L., 2nd Batt. King's Own (Yorkshire L.I.). Commanded one of two companies that remained in the trenches to the end at Le Cateau, Aug. 26, when all other officers were killed or wounded and ammunition spent, led 19 survivors in bayonet charge. Severely wounded and died a prisoner.

The Allies' Engagement

On September 5, 1914, the following declaration was signed and sealed in triplicate by Sir Edward Grey, M. Paul Cambon and Count Benckendorff:

"The British, French, and Russian Governments mutually engage not to conclude peace separately during the present war. The three Governments agree that when terms of peace come to be discussed no one of the Allies will demand conditions of peace without the previous agreement of each of the other Allies."

After a year of war this declaration was orally reaffirmed by the rulers of the three countries, and rumours as to the possibility of a separate peace were emphatically denied by M. Sazonoff, who said (August 22)

"The only foundation for these stories are the repeated attempts to inaugurate the discussion of a separate peace which have been made both to France and to ourselves on the part of the enemy. However, these attempts were met both by us and by the French with an absolute negative. Our enemies' idea that they can sow dissension among the Allies will in no event be realized. The bonds continually grow stronger."

German "Frightfulness"

FROM the very beginning of the war the newspapers have surfeited the public with reports of outrages and horrors perpetrated by the Germans in pursuit of their methods of "frightfulness." The outrages began with the shooting of fugitive civilians and burning of villages in Belgium on August 4th, 1914, and were continued in one form or another on land and sea right down to the deliberate shooting of the crew of the stranded British submarine, E13 in August last. Official reports were issued by both the Belgian and the French Governments; well-authenticated as they were, the British Government, nevertheless, in December, 1914, appointed a Committee consisting of Viscount Bryce, Sir Frederick Pollock, Bart., K.C., Sir Edward Clarke, K.C., Sir Alfred Hopkinson, K.C., Mr. H. A. L. Fisher, and Mr. Harold Cox to take evidence, report and advise on these alleged outrages. The Committee investigated the depositions of 1,200 witnesses, and came to conclusions in substantial accord with those of the Belgian and French Commissions. After making all possible allowances in favour of the German troops, the Committee declared that the acts of brutality differed "rather in extery than in kind from what has happened in previous though not recent wars." It was held by Lord Bryce and his colleagues to have been proved

- "(i) That there were in many parts of Belgium deliberate and systematically organised massacres of the civil population, accompanied by many isolated murders and other outrages.
- (ii) That in the conduct of the war generally innocent civilians, both men and women, were murdered in large numbers, women violated, and children murdered.
- (iii) That looting, house burning, and the wanton destruction of property were ordered and countenanced by the officers of the German army, that elaborate provision had been made for systematic incendiarism at the very outbreak of the war, and that the burnings and destruction were frequent where no military necessity could be alleged, being indeed part of a system of general terrorization.
- (iv) That the rules and usages of war were frequently broken, particularly by the using of civilians, including women and children, as a shield for advancing forces exposed to fire, to a less degree by killing the wounded and prisoners, and in the frequent abuse of the Red Cross and the White Flag.

"Sensible as they are of the gravity of these conclusions, the Committee conceive that they would be doing less than their duty if they failed to record them as fully established by the evidence. Murder, lust, and pillage prevailed over many parts of Belgium on a scale unparalleled in any war between civilised nations during the last three centuries."

The Submarine "Blockade"

IN his review of the work of the Imperial Navy, Mr. Fred T. Jane makes special reference to the so-called submarine blockade. The submarine is of quite recent development for, though inventors, from the time of Fulton, strove to evolve reliable underwater craft, it was not until the beginning of the present century that the difficulties of the problem were overcome and development could proceed on the lines which have resulted in the evolution of the E boats of the British and the U's of the Germans. It is an interesting coincidence that with their advent the Americans should have relegated to desuetude one of the earliest Holland boats, the prototype of the A's of the British Fleet and very largely too of the submarines of other nations. Until the present war the underwater boat was regarded as a legitimate adjunct to modern war fleets to be employed in accordance with the accepted usages of honourable civilized warfare.

Until the close of 1914, there was no indication that the Germans would use their submarines in ways other than those authorized by the Hague Convention. Mr. Jane advances the interesting suggestion that they have adhered to the letter of International law. A wave of horror flashed over the civilized world when the *Amiral Ganteaume* was torpedoed without warning despite the fact that she was laden with helpless French and Belgian refugees. What British ship-owners had to expect was shown by the torpedoing without warning of the *Ikaria* and *Tokomaru*. These events were followed by a clumsy effort on the part of the Germans to legalise such acts of brutal piracy, for they announced that a submarine blockade of the British Islands would commence on February 18. At first it seems to have been left to the discretion or humanity of the commanders of the U boats as to whether they notified merchant vessels of their intention of sinking them, and thus give them warning to leave their ship or not. On February 28, ten days after the "blockade" had been declared, the steamer *Thordis*, a boat of 500 tons, rammed and sunk a German submarine off Beachy Head. Her captain was honoured by the King, and he and his crew received an award of £500 offered by the *Syren and Shipping* to the first unarmed British merchantman which should accomplish this feat and so demonstrate the vulnerability of the submarine to collision with a merchant vessel. Thereupon the Germans to excuse a dastardly practice they had already put into operation maintained that as British merchant ships were thus encouraged to attack German submarines, the latter would in future be justified in sinking *without* warning.

From February onwards the work of destruction continued with varying results. There was one week during which no vessels were sunk, while during the week ending 25th August, 23 British and 8 neutral ships were reported as sunk. It is impossible to account for this variation of the toll. It appears, however, tolerably certain that the excellent patrol system (as to which a very interesting story will someday be told), and the arrangements made by the Admiralty,

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has driven the enemy further afield for his victims. "The losses of German submarines, important though they have been," was the phrase used by the Secretary of the Admiralty in reporting the sinking of a U boat in August by bombs from an aeroplane off Ostend by Com. A. W. Bigsworth. It is dangerous for the German submarine commander to show his periscope near the British coasts, and with German submarine crews, regard for their own safety has only been equalled by disregard for the lives of others. But the wide distances of the North Sea; the approaches to our coasts from the southward and westward; the length of the route to Archangel; make it a physical impossibility that all these sea routes can be effectively controlled. The increased radius of action of the modern submarine enhances the difficulty of the task. Our boats can find their targets in the Sea of Marmora, and the Germans in the Aegean where the torpedoing of the transport *Royal Edward*, lamentable in its life loss, brings out in bold relief the success of the methods we have employed to guard our transport fleets from submarine attacks. The sinking of the *Royal Edward* was a legitimate act of war, the sinking of the *Lusitania*, with its awful death-roll of 1,100, was not, and neither was the sinking of the *Falaba*, on March 28, nor the slaughter of numerous crews by shell-fire.

Now what is the sum total of the damage inflicted on British shipping by Germany's inhuman methods of warfare? According to a return made in September, the number of vessels torpedoed during seven months of "blockade" was 104 ships, aggregating over 300,000 tons, exclusive of 105 trawlers. It may be argued that this is not a serious amount considering our marine business. Lloyds' Register credits British owners, exclusive of colonial owned vessels, with 19,541,368 tons of steam, and sail over 100 tons. Of course, the vast bulk of this lost tonnage has been insured in the Government War Risks Insurance Scheme. But assuming that the owner does not suffer any pecuniary loss, the country loses the services of this destroyed tonnage at a time when it requires it most, and at present there is little opportunity for British builders to replace the wastage. Yet it is true, as Mr. Balfour said in September, that "while the losses inflicted upon German submarines have been formidable," British mercantile tonnage is greater than when the war began.

The case of the Cunard liner *Lusitania* (40,000 tons) was one of such importance and gravity that it demands more detailed notice. The ship was torpedoed without warning at 2 o'clock in the afternoon of Friday, May 7, when some 25 miles off Queenstown; she sank about 20 minutes after being struck. Her passengers and crew numbered 1,906, and of these 1,198 perished, among them being Mr. A. G. Vanderbilt, Mr. Charles Frohman, and several other well-known men. Previous to her departure from New York the German Embassy inserted in some American papers a warning to travellers against embarking in British ships, and the leading American passengers received telegrams advising them not to sail by her. The news profoundly shocked all civilized nations, rousing the utmost anger both in the United States and in Great Britain, and producing many anti-German riots.

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In a speech at Philadelphia on May 10, President Wilson outlined his "peaceful policy," observing that "there is such a thing as a man being too proud to fight, such a thing as a nation being so right that it does not need to convince others by force that it is right." Two hundred and eighteen of the passengers on the *Lusitania* were Americans, and only 79 of these were saved. The first American Note on the subject addressed to Germany on May 15, pointed out that the sinking by German submarines of the *Falaba* when an American citizen was drowned, the attacks on the *Cushing*, the torpedoing of the *Gulflight*, and the sinking of the *Lusitania*, were viewed with growing "concern, distress, and amazement" by the Government of the United States, which held the German Government "to strict accountability" for any infringement of the rights of Americans in ships of belligerents. A protest was entered against the employment of submarines in the destruction of commerce, and the Note ends with a confident expectation that the Imperial German Government will disavow these acts, make reparation as far as possible, and prevent the recurrence of anything so "obviously subversive of the principles of warfare." This was signed by Mr. Bryan, who subsequently resigned his office, owing to disapproval of President Wilson's attitude.

The German Reply, dated May 28, attributed the sinking of the neutral vessels by submarines to "mistakes in identification" due to the "British Government's abuse of flags," or to the disobedience of captains to the submarine-commanders' orders. With regard to the *Lusitania*, it was contended that she was armed as an auxiliary cruiser with concealed cannon; that the British Admiralty had incited merchant ships to destroy enemy submarines by ramming; that British merchantmen could not be regarded as "undefended"; that the *Lusitania* carried Canadian troops and 5,400 cases of ammunition; finally, that the Cunard Company was to be blamed for embarking American subjects on a ship bearing explosives; being thus "wantonly guilty of the death of so many passengers." The Reply attributes the loss of the *Lusitania* to the explosion of her own ammunition caused by torpedo.

The second American Note, signed by Robert Lansing, the new Secretary of State, dated June 10, pointed out that the *Lusitania* was not armed for offensive action, was not serving as a transport, and did not carry any cargo prohibited by the statutes of the U.S.A. The Government of the United States contended "for something much greater than the mere rights of property and the privileges of commerce"—for, in fact, the rights of humanity. Renewing "very earnestly, very solemnly," the representations of the first Note, this despatch asked for assurances that the German Government will adopt the measures necessary to safeguard American lives and American ships.

On June 15, the Board of Trade Inquiry into the loss of the liner was opened by Lord Mersey, partly *in camera*. The captain in his evidence said the ship had no weapons of offence or defence and no masked guns. The report of the Court, published on July 17, found that "the loss of the ship and lives was due to damage caused by torpedoes

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fired by a submarine of German nationality, whereby the ship sank. In the opinion of the Court the act was done, not merely with the intention of sinking the ship, but also with the intention of destroying the lives of the people on board." The conduct of the master, officers, and crew was found satisfactory; there were on board 5,000 cases of cartridges, but no arms or other explosives, the assertions to the contrary of the German Government being "baseless inventions." "The whole blame," said Lord Mersey, "for the cruel destruction of life in this catastrophe must rest solely with those who plotted and with those who committed the crime."

The German Reply, dated July 8, to the second Note breathes the heartiest satisfaction at the earnestness of the United States Government in vindicating the principles of humanity, Germany having "always permitted herself to be governed by the principles of progress and humanity in dealing with the laws of maritime warfare," and having always held "tenaciously" that in war "the enemy civilian population must be spared as far as possible." The German Government "has no guilt" in these matters, the whole blame being still put upon England for whatever maritime damage has occurred; Germany is simply "conducting the war in self-defence and for the sake of a peace of assured permanency." "The case of the *Lusitania*," proceeds this amazing Reply, "shows with horrible clearness to what jeopardizing of human lives the manner of conducting war employed by our adversaries leads." German submarines are to be instructed to permit the passage of American passenger steamers when they are recognizable and when "notified a reasonable time in advance." Also, Germany offers to allow "free and safe passage" to a few passenger steamers, either neutral or enemy, which shall definitely fly the American flag. This despatch, with its impudent assumption that Germany controls the seas, was received with marked contempt by the greater part of the American Press.

The third Note from the United States, dated July 22, intimates that the above Reply is most unsatisfactory, refuses to discuss the policy of England save with England herself, and considers much of what Germany says as irrelevant. The United States Government still presses that the German Government should "no longer refrain from disavowing the wanton act of its naval commander in sinking the *Lusitania*," declines to accept the suggestion that certain designated vessels should be free on the seas "now illegally proscribed," and concludes by saying, with regard to neutral rights, that "repetition by the commanders of German naval vessels of acts in contravention of those rights must be regarded by the Government of the United States when they affect American citizens as deliberately unfriendly."

On August 18, at 9.15 a.m., the White Star Liner *Arabic* (15,000 tons) was torpedoed without warning off the Fastnet lighthouse and sank in eleven minutes. Of the 429 passengers and crew on board, 390 were saved by the boats; among the victims were 21 of the crew and 18 passengers, two of whom were American citizens. This was a more wanton crime even than the *Lusitania*, because as the vessel was on its way from Liverpool to New York, it could not be pretended that she

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was carrying munitions and troops for Great Britain. The American Press with one accord demanded to know whether the sinking of the *Arabic* did not come within the definition of "deliberately unfriendly." As a result of the energetic expression of opinion in America and the fear that America might be drawn into the war against her, Germany was reported on August 27 to have given an undertaking that submarine commanders would sink no more passenger ships and attack no more merchantmen without warning. The precise value of this undertaking was realized on Saturday, September 6, when at 8.20 p.m. the Allan liner *Hesperian* (9,599 tons), from Liverpool for Montreal, was torpedoed without warning. Germany denies that this boat was torpedoed and suggests that she struck a mine. Eleven passengers and 13 of the crew, out of a total complement of 350 passengers and 250 crew, lost their lives. In a letter to a correspondent published simultaneously with the report of the sinking of the *Hesperian*, Mr. Balfour regarded "the amazing change" which had come over the diplomatic attitude of Germany towards America as a recognition that what were merely crimes in May, were blunders in September.

Shipping Gains and Losses

The return of shipping gains and losses to the end of July shows the following, captured, detained, sunk or damaged:—

	Ships	Tonnage
German	521	1,118,298
British	476	980,773
Neutral	418	593,820
Austrian	75	254,282
Allied, French, Russian Belgian ...	82	128,177
Turkish	56	18,508
	<u>1,628</u>	<u>3,188,858</u>

Sixty British vessels were in the port of Hamburg on the outbreak of war and 56 were sunk by the *Emden* and other enemy cruisers. German vessels are accounted for thus:—

	Ships	Tonnage
Detained in United Kingdom and Overseas British ports	146	315,181
Captured in German Colonial ports ...	21	43,367
Captured and sunk by British	8	29,424
Captured by British	75	186,765
Detained in Egyptian ports	18	86,088
" Belgian ports	89	186,920
" French and Russian ports ...	95	112,945
" Italian ports	86	158,876
Captured and sunk by Allies	4	8,822
Captured by Allies... ..	25	37,985
Sunk or damaged by submarines, mines, or explosions	4	6,975
	<u>521</u>	<u>1,118,258</u>

Official Documents

THE ENGLISH "BLUE" BOOK entitled "Great Britain and the European Crisis" contains documents telegraphic and otherwise, numbered 1—161, relating the full story of the negotiations between the English Government and Germany, France, Russia, Austria, Serbia, Belgium, and Luxemburg. Numbers 1—159 comprise the messages and despatches beginning with a Note dated July 20, 1914, from Sir Edward Grey to Sir H. Rumbold, British Chargé d'Affaires at Berlin, reporting a conversation with the German Ambassador in London, in which Sir Edward had expressed his hatred of the idea of a war between any of the Great Powers, and had enquired for news of what was going on in Vienna with regard to Serbia; continuing with the demands of the Austro-Hungarian Government upon Serbia, the reply from Serbia, the suggestion of Sir Edward Grey on July 26 to the Ambassadors at Paris, Berlin, and Rome (telegraphic) for an immediate conference "for the purpose of discovering an issue which would prevent complications"; proceeding then to give verbatim and in chronological order the entire correspondence. These documents show clearly the unceasing efforts made by the British Foreign Secretary to find some peaceful way out of the threatening quarrel—efforts admitted (No. 121) by the German Secretary of State; the steadiness with which France held back until the last; and the promise of Germany that she would "under no pretence whatever" violate Belgian territory. Numbers 1—159 have been published as a "White Paper" (Miscellaneous No. 6, 1914, Cd. 7467). Number 160, forming White Paper No. 8 (1914, Cd. 7445) is Sir E. Goschen's report of the final negotiations at Berlin; and number 161 (White Paper No. 10, 1914, Cd. 7596) is Sir M. de Bunsen's review of events at Vienna. The second part of this volume contains the historic speech of Sir Edward Grey before the House of Commons on August 3, 1914, and the speeches of Mr. Asquith in the House on August 4, 5, and 6, 1914. Among the official documents relating to developments which showed Germany's aim, none is more important than that published on September 1, '15 by the British Foreign Office as a reply to a speech by Herr Bethmann-Holweg on August 19, in which he stated that Germany had made proposals for an understanding with England which would have secured the peace of the world. "We were ready, England declined." The British Foreign Office statement shows that what Germany proposed in 1912 was an arrangement which would bind England to "benevolent neutrality" if Germany were not the aggressor. Sir Edward Grey at once saw the trap that was provided and made a counter-proposal that England should agree not to become a party to any treaty, understanding or combination, which aimed at unprovoked aggression upon Germany. As Germany could not secure an agreement guaranteeing neutrality of a far-reaching character she proceeded with her new Bill for the increase of her navy—a measure which in any event Count Metternich said could not be withdrawn, but might be modified.

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In his speech Herr Bethmann-Holweg said Germany was "the shield of peace and the freedom of big and small nations." Sir Edward Grey in a letter to the Press replied: "An iron peace and a freedom under a Prussian shield and under German supremacy. Germany supreme, Germany alone would be free."

THE FRENCH "YELLOW" BOOK opens with a section entitled "Warnings," reproducing certain letters which passed in 1913 between members of the French Embassy at Berlin and the French Foreign Office regarding military and public opinion in Germany at that time, describing the excitement in Berlin at the introduction of the three years' army service in France, and the ostentatious celebrations of the centenaries of the triumphs of 1813; showing also most vividly the secret schemes of Germany to open up relations with other countries with the express object of stirring up trouble and distracting the enemy's forces in case of war. Chapter II., "Preliminaries," gives the correspondence relating to the death of the Archduke of Austria at Serajevo on June 28, 1914, and the progress of Austria's resentment until the Note to Serbia was sent on July 23. Chapter III. deals with the Austrian Note and Serbia's reply, and more than one document emphasises Russia's desire for a peaceful solution of the problem. The following sections carry on the story of events chiefly by despatches between M. René Viviani, the French Premier and Foreign Minister, and the various Ambassadors, showing (No. 106) that Germany practically mobilised, cleared her western frontiers of obstacles and placed wire entanglements by July 25, secretly, in the hope (No. 105) that France might publish her mobilisation first and thus be saddled with the responsibility; giving the report of M. Eyschen, Minister of State for Luxemburg, as to the violation of that territory, and evidence (No. 139) that Germany's troops began hostile acts before the situation had reached its climax; also a protest by M. Viviani (No. 146) against the "German campaign of false news" which even then was encouraged by the Foreign Office at Berlin. The difficulties encountered by M. Jules Cambon, French Ambassador in Berlin, in leaving the country, are related in his official despatch. The book ends with the speeches of M. Poincaré and M. Viviani in the French Chamber on August 4, 1914, and the document by which the British, French and Russian Governments mutually engage not to conclude peace separately.

THE GERMAN "WHITE" BOOK, entitled "Germany's Reasons for War with Russia: How Russia and her Ruler betrayed Germany's confidence and thereby made the European War," begins with a lengthy document dated "Foreign Office, Berlin, August, 1914," which accuses Russia of deliberately deceiving Germany with regard to her mobilisation, explains why Germany could not consent to a Conference of the Powers, and reproduces the telegrams which passed between the Kaiser and the Tsar on July 31, and which crossed each other. After this the telegraphic despatches and Notes are printed, beginning with the Austrian

Note to Serbia, the reply, and Austria's comments in italics. Despatches from the Chancellor, von Bethmann-Hollweg, to the German Ambassadors at Paris, London, and St. Petersburg dated July 23, explain the position and request them to use their influence with each respective Government to localise the conflict. Several telegrams, from July 25 to July 27, deal with the rumours as to Russia's mobilisation; the Russian Secretary for War, M. Sazonoff, assuring the German Ambassador at St. Petersburg that only "general preparations" have been made, no reserves having been called up and no horses mustered. Other telegrams between the Tsar and the Kaiser sent on July 29 and 30 are given, the Kaiser placing the entire onus of war on the shoulders of the Tsar. "The Chancellor's instructions to the German Ambassador in Paris to enquire whether the French Government would remain neutral in a Russo-German war follow, a reply being requested within eighteen hours, and the documents conclude with the answer of the French Government that France would do "that which her interests dictated." The Appendix contains the famous speech delivered by the Chancellor before the Reichstag on August 4, 1914, in which he admits the wrong committed by the invasion of Belgium and Luxemburg, and asserts that Germany must "hack her way through."

THE RUSSIAN "ORANGE" BOOK (Cd. 7626, No. 11, 1914) shows more than anything else the desire of M. Sazonoff, Minister for Foreign Affairs, to avoid the break with Austria. The correspondence begins on July 23, 1914, with a report from the Russian Chargé d'Affaires at Belgrade to his headquarters as to the situation; includes a telegram from the Tsar to Prince Alexander of Serbia on July 27, in which the Prince is asked to neglect no step which might lead to a settlement (No. 40) and is assured of Russia's interests if the worst should come; a clear statement by M. Sazonoff on August 2 (No. 77), of the diplomatic discussions in view of the garbled versions which had appeared in the foreign Press, ending with the declaration of war on Russia by Germany on August 1. The Russian Minister explains finally, in a telegraphic despatch dated August 2, to Russian representatives abroad, that Germany was doing her utmost to foist upon Russia the responsibility for the rupture.

THE SERBIAN "BLUE" BOOK from the beginning condemns energetically the Serajevo outrage, and affirms the sincerity of the Serbian Government's wish that "good neighbourly relations" with Austria-Hungary shall be established. Dr. M. Yovanovitch, Chargé d'Affaires at Berlin, advises M. N. Pashitch, Serbian Premier and Minister for Foreign Affairs, that the hostility of German public opinion is growing, and is being fostered (June 30, 1914, No. 4) by false reports coming from Vienna and Budapesth. M. Pashitch announces to all the Serbian Legations abroad that Serbia can on no account permit Europe to be misled on this matter. The correspondence until July 23, the date of the delivery

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of the Austro-Hungarian demand by Baron Giesl, Minister at Belgrade, to Serbia, runs on these lines, considerable uncertainty being evident as to what the issue would be. On July 25 the Austro-Hungarian Minister for Foreign Affairs, Count Berchtold, advised M. Yovanovitch, Serbian Minister at Vienna, that he had instructed Baron Giesl to break off diplomatic relations. A despatch from Dr. M. Yovanovitch at Berlin to M. Pashitch informs him (August 6) that on the occasion of his visit to M. Zimmermann, Under-Secretary of State, for the purpose of ending diplomatic relations with Serbia, M. Zimmermann stated that Germany had always cherished friendly feelings towards Serbia, and blamed Russia only for the developments. The book finishes with a long despatch from the Serbian Minister at Vienna, giving a résumé of the course of events to M. Pashitch. There is an Appendix containing a despatch dated December 6, 1914, from the British Ambassador at Rome (Sir Rennell Rodd) to Sir Edward Grey, enclosing the translation of a speech by Signor Giolitti before the Italian Chamber of Deputies on December 5, on Italian policy regarding the war.

THE AUSTRO-HUNGARIAN "RED" BOOK has an Introduction setting forth the constant machinations of Serbia against the Austro-Hungarian Monarchy, blaming the Entente Powers for ranging themselves beside the "Kingdom (of Serbia) with its load of guilt," and asserting that Austria and Germany, "confronted with the choice of protecting their rights and their safety or of giving way before the threats of Russia, took the road pointed out by honour and duty." The first documents relate to the Serajevo murder and the "rejoicings" thereof in Belgrade, giving, in due course, the Austrian Note to Serbia, and the report of Count Mensdorff, Austrian Ambassador in London, to Count Berchtold on his showing the Note to Sir Edward Grey, who, on reading it, regretted the short time-limit and was apprehensive of war. A telegraphic despatch from Count Szápáry (Ambassador at St. Petersburg) to Count Berchtold is given, noting that in an interview between himself and M. Sazonoff on July 24, the attitude of the Russian Minister was "unaccommodating and hostile"; a second despatch of the same date stating that Russia regarded the Austro-Serbian dispute as a European affair. A lengthy dossier sent by Berchtold to his Ambassadors at Berlin, Rome, London, Paris, St. Petersburg, and Constantinople reviews the history of Serbian complications and misdemeanours since 1909, and gives in a series of appendices extracts from the Serbian Press, proceedings of various Serbian societies, the depositions of a suspect examined with regard to the assassination of the Archduke, the records of the Court at Serajevo touching the crime, and confidential reports on Serbian matters; this document fills over 35 pages. On the same date Baron von Giesl, Austro-Hungarian Minister at Belgrade, telegraphs to Berchtold that orders for general mobilisation were issued in Serbia, and, later, that he and his staff have left the Legation. The correspondence then turns upon the attitude of Russia. In a letter of July 28, from Count Berchtold to Count Szügyény,

Austrian Ambassador at Berlin, he informs the Ambassador that he has received a telegram from Mensdorff relating to an interview with Sir Edward Grey, who remarked that the British Grand Fleet would remain at Portsmouth instead of dispersing. Count Szögyény on August 2 telegraphs to Berchtold that Russian troops have crossed the German frontier and that the Russian Ambassador has received his passports; the documents then given, from August 4 to 24, relate to the breaking off of diplomatic relations with the several countries concerned, ending with Japan.

The second Austrian "Red" Book, issued on July 12, 1915, deals with the situation as it concerns Italy. On August 4, 1914, Count Berchtold promised Italy Tunis and the Savoy if she supported the Central Powers; on the same date General Cadorna intimated that Italy was firm for neutrality. From January 20 to February 9, 1915, the Duc d'Avarna, Italian Ambassador in Vienna, is reported to have discussed with Baron Burian the question of concessions from Austrian territory; this point forms the theme of various despatches until April 1. On April 28 an English loan was announced; the fall of the Triple Alliance and the crisis in the Italian Cabinet follow. The declaration of war was made on May 23.

THE 'BELGIAN "GREY" BOOK opens with a despatch dated July 24 from M. Davignon, Minister for Foreign Affairs, to the Belgian representatives at Paris, Berlin, London, Vienna, and St. Petersburg, announcing that the international situation was serious, and that Belgium was ready to defend her neutrality. The Notes discussing Germany's attitude to Belgium, and the proposals from Germany for "friendly neutrality" (permission to pass her troops over Belgian territory) are given. Interesting despatches between Holland and Belgium regarding the question of traffic on the river Scheldt and preserving the interests to the two nations, and the document (with translation) declaring the neutrality of the Netherlands (which appeared in the special edition of the Holland *Staatscourant*, August 6, 1914), are reproduced. The story of events covers much more than the first violation of the country by the German advance, proceeds to the documents concerning the neutrality of the Congo basin, and concludes with some correspondence on the subject of the transshipment of grain at Antwerp. The tragedy of Belgium does not appear, save by inference, in these official papers. In an Appendix several "Documents relative to the Relations between Great Britain and Belgium previously to the Outbreak of War" are given, in which the rumours of an "arrangement" between the two Governments to the effect that England was to be allowed to trespass on Belgian territory in case of war are refuted. (Cd. 7627, No. 12, 1914). A second "Grey" Book revealed that Germany some months before the war proposed to France that the Belgian Congo should be partitioned and Belgium removed from the list of independent nations. This proposal was made by Herr von Jagow, the German Foreign Minister. Despatches of dramatic interest from Belgian Ministers in Berlin and Vienna, written on the very eve of the war, are given. They show Germany con-

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vinced that war with Russia and France was inevitable at no distant date, and one despatch dated Berlin, July 26, 1914, contains the following illuminating passages: "Germany has completed her military reinforcements provided for by the Law of 1912, and, on the other hand, she feels that she cannot keep up indefinitely an armaments race with Russia and France, which would end in ruining her. The War-Levy (Wehrbeitrag) has been a disappointment for the Imperial Government, to whom it has shown the limit of the national wealth. Russia, before she had completed her reorganisation, has committed the mistake of exposing her strength. That strength will become formidable only some years hence; what she now lacks is the deployment of the necessary lines of railway. As for France, M. Charles Humbert has revealed the insufficiency of guns of great calibre; now it is just that arm that, so it seems, is to decide the fate of battles. England, finally, whom for two years past the German Government has been trying, not without some success, to detach from France and Russia, is paralysed by internal dissensions and her Irish quarrels."

THE TURKISH "WHITE" BOOK (English Official Paper, Cd. 7628) opens with Sir Edward Grey's instructions on August 3, 1914, to Mr. Beaumont, the British Chargé d'Affaires at Constantinople, to notify the Turkish Government that Great Britain wished to take over their battleship then building at Messrs. Armstrong's yards; this the Grand Vizier objected to as "unfriendly," Turkey not being at war, and explained that Turkey would be strictly neutral. On August 7 Sir Edward telegraphed to Mr. Beaumont to contradict the rumour that Egypt was to be annexed by Great Britain. The *Goeben* and *Breslau* entered the Dardanelles on August 11, and Mr. Beaumont reported that the German Consul had been in communication with them; Sir Edward Grey telegraphed that they should be disarmed in accordance with the laws of neutrality if they did not leave within 24 hours, but later in the same day (August 11) Mr. Beaumont wired that the Ottoman Government had bought the two ships. By August 15 he feared complications, and advised Sir Edward Grey that Admiral Limpus (English Naval Adviser to Turkey) and his staff were replaced by Turkish officers. Sir Louis Mallet, British Ambassador to Turkey, having returned to his post, found on the 18th that the situation was delicate, but that the Grand Vizier was most friendly; on the next day, however, he observed in another telegram that the precaution off the presence of the Fleet at the Dardanelles was wise. The Turkish Government on August 20 asked for the return of the two battleships acquired by England at the outbreak of war, and for several other favours, Sir E. Grey replying on the 22nd that the demands were excessive, but that if the Turkish Government would "repatriate" immediately the officers and crews of the *Goeben* and *Breslau* and promise in writing that free passage would be given to merchant ships the three Allied Powers would guarantee the independence and integrity of Turkey. German forces,

naval and military, began to arrive at Constantinople; on September 16 Sir E. Grey telegraphed to our Ambassador that Turkey "must not expect concessions from us while her present irregular conduct in the matter of the German officers and crews continues." Other despatches mention the activity of the two ships in the Black Sea, and the work of German agents in Egypt and Asia Minor; then comes the invasion of Egyptian territory and the bombardment of Black Sea ports by Turkish-German cruisers. On October 30 the Ambassador demanded his passports.

THE ITALIAN "GREEN" BOOK shows that Austria-Hungary held to the idea that Italy had no cause for complaint on the score of the occupation of Serbian territory by Austrian troops; Italy, however, regarded this as a violation of Clause vii. of the Triple Alliance. Baron Sonnino pressed this point, and on February 17, 1915, advised Baron Burian that Italy objected to "all Austrian military action in the Balkans, except in the case of a previous understanding," repeating this on March 4, setting out also the question of compensation; insisting, a few days later, that all negotiations must take place between the two Governments without the intervention of Germany. Prince Bülow suggested to Italy on March 17 the "terrible consequences in the near and distant future of a rupture between Italy and Germany," and early in April renewed his efforts to influence her; but Italy formulated an agreement which would give her by cession from Austria the Trentino and some Dalmatian islands, with other advantages. The Austrian Government refused to consider this on April 16, and on May 4 Baron Sonnino, apparently tired of the confusion and delay, announced that Austria-Hungary had violated the Triple Alliance by failing to keep Clause vii. War was formally declared by Italy, May 23, 1915.

Supplementary to the official documents are the revelations in the *New York World* and other American papers in August based on letters and documents which fell into the hands of journalists who had the courage to publish them. The German Foreign Office through its agents not merely attempted to capture the American Press by offers of large subsidies, but great munition works were brought under German control in order to prevent their completing contracts with the Allies, and arrangements were made to subsidise strikers. Captain von Papen, the German Military Attaché in Washington, was among those implicated. He was shown to have collaborated with Dr. Dumba, the Austrian Ambassador to America, whose plan for calling out or intimidating Austrian workmen was revealed by a letter which he despatched from New York to Vienna (White Paper, Cd. 8012). The discovery led President Wilson, in September, to demand his recall.

Official documents relating to the treatment of British prisoners in Germany will be found in "White" Book (Cd. 7817), which contains the results of American inquiries. British prisoners were often subject to insult and outrage, and at the best were not treated with the humanity shown to German prisoners in Great Britain.

Conscription: Pros and Cons

WHEN the Coalition Government was formed in May, 1915, the advocates of conscription predicted a speedy realization of their hopes. They saw in the National Register taken on August 5th the first step; the indexing of the nation was intended to provide Ministers with detailed information on which action could be based. The recruiting officers with their pink papers went to work in the latter half of September. On the result of their efforts turns the question of conscription. It was recognized from the first that compulsory service was a rock upon which any party might split. The question of conscription fell into the cockpit of the Press, which set about tearing it to tatters. Lord Selborne said the controversy created by the newspapers was "a national calamity."

Although many Liberals were known to be ardent advocates of conscription, and many Tories openly discountenanced it, and although the Cabinet itself was divided on its advisability, the question was understood to be the special prerogative of the Conservative party. Not that that party had any selfish interest to serve in demanding that every man of military age should do his share in the defence of his country. The best blood of the land had already been freely given and freely shed, and the fact that no fewer than some 200 scions of noble houses were in the fighting line, stirred with pride and satisfaction the pulse of the proletariat. But beyond this, it left unmoved a vast number of active, able-bodied men, on whom neither example nor admonition was likely to take effect. If one man were as good as another as a fighting unit, why should not all men play their part in the time of national danger? Was the country to be denuded of its ablest, its wealthiest, its most patriotic, while the idler and scoffer were to be left as the fathers of our future race, and the representatives of all that was best in the arts of peace?

Such in brief were the arguments of the conscriptionists while the "antis" absolutely declared that voluntarism was the very essence of military efficiency, that compulsion was repugnant to the free and independent Britisher, and that no interference with the liberty of the subject could for a moment be tolerated. They declaimed against the vicious and subversive agitation of a press that sought to "Prussianise" the people. At the Trade Union Congress at Bristol on September 7th, the subject was introduced, and dismissed with whirlwind rapidity. There was little discussion, and less argument, and the following resolution put to the meeting was unanimously and uproariously carried.

"We, the delegates to this Congress, representing nearly three million organized workers, record our hearty appreciation of the magnificent response made to the call for volunteers to fight against the tyranny of militarism. We emphatically protest against the sinister efforts of a section of the reactionary Press in formulating newspaper policies for party purposes and attempting to foist on this country conscription, which

always proves a burden to the workers, and will divide the nation at a time when absolute unanimity is essential. No reliable evidence has been produced to show that the voluntary system of enlistment is not adequate to meet all the Empire's requirements. We believe that all the men necessary can, and will, be obtained through a voluntary system properly organized, and we heartily support, and will give every aid to, the Government in their present efforts to secure the men necessary to prosecute the war to a successful issue."

When we come, said the President, "to this sinister, diabolical attempt to rush the country and force the hands of the Government, it is time for democracy to say that no one man, however powerful he may be in the Press shall supplant the free will of democracy, and the free expression of opinion of that democracy.... There is enough grit and manhood in the nation to face any eventuality provided we know what we are fighting for." In Parliament, September 16, Mr. Thomas, the Labour member for Derby, voiced the suspicions of the working classes, said compulsory service might mean an industrial revolution, deprecated an agitation which might involve an inconclusive peace, and demanded to be told "the exact position" by some responsible Minister.

At the beginning of the war the National Service League suspended its propaganda, but in August, 1915, a rousing call was made by Lord Milner, its Chairman. "The unprecedented intensity of the struggle," said his Lordship, "the absolute necessity of placing forces of unforeseen magnitude into the field, and the widespread demand throughout the country for a more equitable distribution of the burden of military service, render it necessary to reconsider the policy adopted under different circumstances a year ago. The existence of the British Empire depends upon success in this war. What we have to do now is to muster under arms all the manhood of the country of military age not required for other national service."

So strong was the line of demarcation between the two camps that it left little room for the man of moderate views, who was prepared to consider the matter dispassionately and always with an eye to his country's need. To him the problem was not one for public controversy or public opinion: it was one for the military authorities who would deal with it immediately the need became manifest. Even the most ardent conscriptionists were content to leave the matter in Lord Kitchener's hands. In Parliament on September 15, Mr. Asquith said that some 3,000,000 men had offered themselves for national service. The Army Vote passed in February was for forces not exceeding 3,000,000, all ranks. Mr. Asquith's statement left the country in doubt as to whom these three millions included, and certain authorities proceeded to show that, in any case, the numbers were inadequate to the needs of the situation. Mr. Amery and others estimated that there were 5,000,000 men of military age who had not heeded the call. The response of the country, said Lord Kitchener (September 15), had been little short of marvellous, but recruiting was falling off and the problem of how to keep up the supply for 1916 was an anxious one.

War Finance and the Budget

ON June 21 Mr. McKenna announced the terms of the most remarkable Loan ever floated. He said that up to the end of March last expenditure exceeded revenue by £334,000,000. To June 19, there was a further realized deficit of £184,000,000. The total of £518,000,000 was the amount to be made good by receipts other than revenue. The first War Loan in November, 1914, was for £331,000,000. With Exchequer bonds for £48,000,000 and Treasury bills for £235,000,000, borrowings amounted to £614,000,000. The New Loan was issued at par, and carries interest at $4\frac{1}{2}$ per cent. The State has the right to repay at par in 1925, or at any subsequent date, but the Loan will mature in 1945. A holder of the first War Loan issued in November, 1914, of Consols, and of $2\frac{1}{2}$ % and $2\frac{3}{4}$ % Government Annuities, might convert his holdings into New War Loan stock on the following conditions:—For every £100 in the New Loan he could have an equal amount of his holdings in the first Loan taken up at the price of issue, £95, and converted into New Loan stock by paying an additional £5. £75 in Consols could be converted into £50 in the New Loan by first applying for £100 stock of the New Loan: an arrangement making Consols exchangeable at 66 2-3. For the small Investor bonds of £5 and £25 were on sale at the post-offices. These bonds carry the same rate of interest, $4\frac{1}{2}$ per cent., as subscriptions through the Bank. For the working classes War Loan vouchers for 5s., or any multiple of 5s., were sold at the post-offices, and at the offices of trade unions, friendly societies, and factories and workshops. The interest on these vouchers is 5 per cent. per annum. The vouchers are exchangeable into money through the post-office savings bank.

Mr. McKenna gave the results of the issue as follows:—

Bank of England subscribers	550,000
Amount of subscriptions ...	£570,000,000
Post Office subscribers ...	547,000
Amount of subscriptions ...	£15,000,000

The gigantic total of the subscriptions through the Bank of England, the Chancellor of the Exchequer explained, represented new money; it did not include any stock which would be issued for the purposes of conversion. This total of nearly £600,000,000 was a record, but in September Germany claimed to have gone one better with £601,000,000. Germany's loans do not represent "new money."

On September 16 Mr. Asquith pointed out that

Votes of credit in the last financial year amounted to ...	£ 382,000,000
Vote on March 1, 1915	250,000,000
Vote on June 16	250,000,000
Vote on July 20	150,000,000
Vote on September 16	250,000,000
Making a Total	<u>1,282,000,000</u>

The rate of expenditure, £3,000,000 per day, at the beginning of July, had risen in September to £5,500,000.

War Finance and the Budget

mainly due to advances to our Allies. The daily cost of the Army was £2,000,000 and of the Navy £600,000.

Mr. McKenna introduced the postponed Budget for 1915-16 on September 21. He estimated:—

EXPENDITURE								£
Army	...	...	...	...	...	...	...	715,000,000
Navy	...	...	...	...	...	...	...	190,000,000
Civil services	...	...	...	...	...	...	...	170,000,000
Advances to allies	...	...	...	...	...	...	...	423,000,000
Liability on market bills	...	...	...	...	...	...	...	36,000,000
Food supplies and other items	...	...	...	...	...	...	...	50,000,000
Total								<u>1,590,000,000</u>
REVENUE								
On existing basis of taxation	...	...	...	...	...	...	...	272,110,000
From new taxation	...	...	...	...	...	...	...	<u>82,904,000</u>
Total								<u>305,014,000</u>
Leaving a deficit of								<u>1,285,000,000</u>

The new imposts include an increase in the tax on earned income from 1s. 6d. to 2s. 1d., and unearned from 2s. 6d. to 3s. 6d., the increase to take effect for the six months balance of the year. Exemption was limited to £130 and various abatements reduced, the highest now being £120. Thus, earned incomes of £131 will pay on £11; incomes of £160 (free before) will this year pay some £3 12s. 6d. and next year £4 3s. 6d. Incomes between £8,000 and £9,000 are taxed 2s. 10d., between £9,000 and £10,000, 3s. 2d., and the surplus above £10,000, 3s. 6d. in the £. War profits, in excess of £100 beyond the assessment for 1914-15, are taxed 50 per cent. Duties on sugar are raised from 1s. 10d. per cwt. to 9s. 4d., on tea from 8d. to 1s. per lb., on tobacco from 4s. 1d. to 6s. 1½d., cocoa from 1d. to 1½d., coffee and chicory from 2d. to 3d., and on dried fruits from 7s. per cwt. to 10s. 6d. Imported motor cars, kinema films, musical instruments, etc., are taxed one third *ad valorem*. Motor spirit bears 3d. extra, and patent medicines 3d. in the 1s. instead of 1½d. Postal rates (inland) are increased to 1d. for 1 oz., 2d. for 2 oz., and ½d. for every additional 2 oz.; postcards from ½d. to 1d., circulars and newspapers (registered) from ½d. to 1d., parcels by 1d. whatever the weight, small postal orders from ½d. to 1d., telegrams from 6d. to 9d. for the first 12 words. Inland press telegrams will be 2s. 6d. for the number of words sent hitherto for 1s.

In September an Anglo-French Commission went to America and arranged the issue of a £100,000,000 5 per cent. loan to maintain credits and steady the Exchange.

The Human Toll

EXACT figures as to the losses of the various countries in the war down to the middle of September cannot be compiled owing to the confusion and the doubling of returns as published. One compiler in July said that he had reckoned up Germany's account of Russian losses

and he made them about 15,000,000! Russia in the first 13 months had probably lost in killed, wounded and prisoners from 2,500,000 to 3,000,000. A careful estimate of German losses to the end of August showed killed from 400,000 to 450,000; wounded and missing, 2,000,000. A French official estimate of German losses in the spring put them at the rate of a quarter-of-a-million per month, but that rate could not have been maintained or Germany would have lost in the first 13 months 3,250,000. Austrian losses have undoubtedly been very heavy, and in the summer a Russian publicist said that the Tsar would soon have within his dominions a larger Austrian Army than the Emperor Francis Joseph: himself could command. They possibly amount to 500,000 killed and 2,000,000 wounded and missing. French losses were estimated (by Germany) at 2,000,000, including 300,000 killed: they were probably not much more than half that number. We are nearer exactitude in dealing with British casualties. For the first year of the war they amounted to 381,982. Killed: officers, 4,965; men, 70,992. Wounded: officers, 9,972; men, 241,086; Missing: officers, 1,501; men, 53,466. The losses in the Gallipoli Peninsula were 87,630. Heavy as it is, it is some 50,000 fewer in killed, wounded and missing than Germany's losses in killed alone. Twelve months of this world war must have involved the sacrifice of at least a million and a half men.

Liquor Traffic Control

ON 19th May, 1915, the Defence of the Realm Act was extended to state control of the liquor trade. Power was given to His Majesty to issue regulations by Order in Council, defining "areas" in which, during the continuance of the war, the supply of intoxicating liquor would be controlled. Under this Act various areas were proscribed, with a view to preventing "treating" to soldiers, sailors and Government workers, and hours during which liquor might be sold in licensed premises or clubs were more and more restricted. Officials, employers, doctors and others, all were agreed that better work was done where the opportunity for drink was smallest. Lord D'Abernon, Chairman of the Central Control Board (Liquor Traffic), in September reported that prosecutions for drunkenness declined in eight big scheduled areas by 40 per cent. following the Regulations. Numerous prosecutions within controlled areas were instituted against persons who bought drinks for soldiers and sailors, and heavy fines were imposed. In London the Liquor Control Regulations were not put in force until October 11. The Order in Council prohibiting "treating" contained the following definition of the "London area": "The area comprised is The City of London; The Metropolitan Police District; The Urban District of Watford, in the County of Herts; The Petty Sessional Division of Romford, in the County of Essex; The Urban District of Dartford, and the Parishes of Darenth, Stone, Sutton-at-Hone, Swanscombe, and Wilmington, in the County of Kent."

Food Supplies

THE question of food for the various nations engaged in the war has been the occasion of some anxiety and much speculation. The German Government early took control of supplies, fixed prices and made arrangements for maintaining a sufficient quantity of wheat, potatoes, etc. We have heard much of shortage in both Germany and Austria, and prices were quoted in July showing a net increase over July, 1914, of 65 per cent. Beyond increase in price and the necessity for avoiding waste or excess the enemy countries do not however appear to be running any risk of the failure which has been predicted. In Great Britain during the year the price of home beef advanced by 44 per cent., of mutton by some 17½ per cent. and of pork by 40 per cent.; the advance in the price of imported meat was much heavier per cent., the actual advance per pound being on a par with that for the normally dearer home-grown article.

The year's harvests have been bountiful, and most encouraging reports are to hand from Canada, India, and other countries within the Empire, including Australia notwithstanding a serious drought. A large quantity of Russian wheat was locked up in Black Sea ports, but India sent an exceptional quantity—some 2,000,000 tons—to Europe. An official statement of quantities sold and prices realised in the first week of August over eight years shows:—

Corresponding week in	Quantities sold			Average price		
	Wheat	Barley	Oats	Wheat	Barley	Oats
	Qrs. bus.	Qrs. bus.	Qrs. bus.	s. d.	s. d.	s. d.
1908	64,067 4	1,087 6	11,248 5	81 6	23 10	18 1
1909	3,496 2	368 3	2,455 7	44 9	24 9	21 8
1910	41,271 0	1,289 6	4,492 6	33 5	20 4	19 0
1911	26,157 6	1,354 7	6,703 4	31 6	26 9	18 0
1912	5,463 4	909 0	1,144 7	39 2	30 7	22 4
1913	14,974 7	378 1	3,544 2	34 1	24 9	19 0
1914	7,036 0	5,347 7	5,095 7	34 9	25 2	19 1
1915	12,355 2	1,718 3	3,074 0	55 4	35 7	31 5

An excellent and well-informed article in the *London Grain, Seed and Oil Reporter* in August estimated that the world's wheat crop in 1915 would total 518,500,000 quarters. The surplus supply was expected to be 132,500,000 quarters, of which after various deductions and reservations, 92,500,000 would be available for export. As Europe would need only 55 millions of this and non-European countries eight millions, there would be an excess of some 30 million quarters. In round figures 26 million quarters are needed by the United Kingdom. As Canada, India, and Australia should have 33 million quarters available, the British Empire would obviously be self-supporting in wheat. The satisfactory character of the world's harvests in 1915 is shown by a comparison with the previous four years:

The British Dominions Year Book 1916

(In Quarters of 480lbs., 000 omitted)

	1915	1914	1913	1912	1911
Austria	7,500	7,500	8,600	8,900	7,500
Hungary	20,500	16,500	21,000	23,000	24,000
Belgium	1,000	1,700	1,900	1,900	1,800
Bulgaria	6,500	5,700	6,600	7,000	8,500
Denmark	600	700	500	450	500
France	35,000	39,200	39,900	41,800	40,800
Germany	20,000	18,800	21,400	20,000	18,700
Greece	600	700	700	700	750
Holland	600	650	600	700	700
Italy	23,000	21,150	26,100	20,800	24,000
Portugal	700	900	800	800	1,000
Roumania	12,800	5,800	10,800	11,100	12,500
Russia	115,000	101,000	119,500	90,500	87,000
Serbia	1,500	1,200	1,500	1,700	1,900
Spain	16,000	14,500	13,900	13,700	18,500
Sweden	900	900	1,100	900	1,000
Switzerland	600	400	450	400	500
United Kingdom ...	8,500	8,100	7,100	7,100	8,000
Total for Europe ...	271,300	244,900	281,950	251,450	247,150
Algeria and Tunis ...	5,500	4,500	5,300	3,000	5,500
Argentina	22,000	22,000	14,000	21,000	20,700
Australasia	12,000	3,800	13,500	12,000	9,900
Canada	28,000	20,000	29,500	28,000	27,000
Chili	2,500	2,800	2,000	2,500	2,200
Egypt	4,500	4,100	4,000	3,600	4,700
India	47,900	39,300	45,300	45,800	46,300
U.S. America	120,700	111,400	95,400	91,000	78,000
Uruguay	1,200	1,000	700	1,200	1,200
Japan	2,900	2,700	3,000	3,000	3,100
Total out of Europe ...	247,200	211,600	212,700	211,100	198,600
Grand total	518,500	456,500	494,650	462,550	445,750

In June Lord Selborne appointed a Committee, under the Chairmanship of Lord Milner, "to consider and report what steps should be taken, by legislation or otherwise, for the sole purpose of maintaining and, if possible, increasing the present production of food in England and Wales, on the assumption that the war may be prolonged beyond the harvest of 1916." At an early stage the Committee were agreed that the only method of effecting a substantial increase in the gross production of food in England and Wales for the harvest of 1916 and later consists in restoring to arable cultivation some of the poorer grass land that has been laid down since the 'seventies. The Interim Report says:—

"To obtain any substantial increase in the production of wheat, oats and potatoes in England and Wales, it will be necessary for farmers to sacrifice the comparative certainty of their present profits, to change some of their methods, to alter their rotations, and to increase their area of arable cultivation in the face of a shortage of labour. In addition, they will have to run the risk, not only of uncertain seasons, but

also of a fall in the price of wheat at the conclusion of the war. The best consideration we have been able to give to the matter leads us to the unanimous conclusion that a guarantee of a minimum price of 45s. a quarter for all marketable home-grown wheat for a period of four years would lead to a very substantial increase in the area of wheat harvested in 1916 and to a further increase in the succeeding years. No exact forecast is possible, but it does not seem an over-sanguine estimate that, if the guarantee were given, the area cropped with wheat, which is now just under two million acres, would be increased by at least another million acres next year. In that case we should have four to five million quarters more wheat grown at home—or fully six weeks' additional supply for the whole of the United Kingdom."

The day the report was issued Lord Selborne announced that the Government did not propose to adopt its recommendations mainly on the ground of financial stringency after the war and of the need for making a call on agricultural labourers for the army. Later he said the Minister for War would exempt from enlistment skilled agricultural labour.

4.

The Port of London

THE war has brought about many changes in the Port of London. Southampton was taken over by the Government, and London was called upon to accommodate much of the displaced traffic. The Port Authority has extended storage space at the docks by 400,000 square feet involving an outlay of over £90,000. Warehousing accommodation soon became heavily taxed by Government demands. The annual report down to March 31 gives instructive details. For instance, during a few weeks the Government brought 100,000 tons of sugar to the Port. Shipping paying tonnage dues declined from 30,616,381 to 26,642,730 tons. Import goods increased by 169,762 tons, whilst export goods decreased by 72,791 tons. On March 31 the stocks in the warehouses directly controlled by the Authority were 550,132 tons, as compared with 536,990 tons on the corresponding date in 1914. Grain and seed, sugar, meat, and wool show the largest increases, and the few items in which decreases have occurred, such as dried fruit, paper, and wood, are mainly imported from the areas affected by the war. Special services rendered to the Government included: The Secret Examination Service of all incoming vessels; the construction for the Army Council of a pontoon bridge between Tilbury and Gravesend; the services of 235 men and 22 officers from the Authority's dredging service and the recruiting of 262 stewards for the discharge of transports in France; assisting in recruiting 770 dock labourers for enlistment for the Army Service Corps; the discharge and storage (free of expense) of large gifts of foodstuffs from Colonial Governments and other sources; and extensive dredging operations on the north-east and south coasts.

Coal Troubles and Problems

OF the various labour difficulties which have marked the past year, notwithstanding the country is at war, by far the most serious was that in South Wales. Trouble in the coal trade, brewing since the beginning of 1915, culminated in June when the representatives of the men put forward a new scale of wages for underground workers which the colliery owners rejected practically in its entirety. The Miners' Federation accordingly "served notices" upon the colliery proprietors that work would cease on a given date in all the mines in South Wales unless the demands of the men were acceded to. A series of negotiations between the parties ended in a decision on the part of the proprietors to adhere to their original refusal to discuss the proposed wages advance on the basis put forward by the Miners' Federation. With the object of preventing a stoppage of work in these mines, the Government, through the President of the Board of Trade primarily, but through the Ministry of Munitions of War actually, proclaimed the South Wales coal-mining area under Section 3 of the Munitions of War Act, 1915. The effect of this proclamation was to make it an offence to take part in a strike or lock-out unless the difference between the parties involved in the dispute had been reported to the Board of Trade and the Board had failed within 21 days of such report to refer the matter for settlement by one of the methods prescribed by the Act. The leaders of the South Wales Miners' Federation recommended the men who had already been on strike for some days to return to work immediately; the men rejected this advice on a card vote by a majority of 45,000. The men remained on strike, defied the Government and seriously hampered the national coal supply as well as placed our Allies, notably France, in a serious position. On July 20th Mr. Lloyd George proceeded to Cardiff, and the colliery proprietors having placed their interests entirely in his hands, was enabled, by conceding practically all the men's demands, to arrange for the immediate resumption of the production of the commodity which Mr. Lloyd George at a subsequent Miners' Conference in London (July 29th) described as "life for us and death for our enemies." Thus a strike that had lost the country over one million tons of coal, which at the current prices would have enriched the nation by some £700,000 and the workers in wages by over £450,000 was brought to an end, and as matters were left at the time of the settlement it was open to the men practically to fix their own rate of wages while a state of war exists. This was proved within a month. Certain points, the chief being the "bonus turn" (that is six turns pay for five done by night-men), were left to Mr. Runciman whose decision both sides undertook to accept. Mr. Runciman's Award, though it conceded the men large increases in wages, did not give the bonus to enginemmen, stokers, and some others. Instantly it was repudiated by the men who contended that Mr. Runciman had made a mistake, and a new strike was threatened.

Coal Troubles and Problems

A considerable number of men as a matter of fact "downed tools." The new crisis was settled on August 31 after days of anxious negotiation by the undertaking of the men to sign the agreement under the Runciman Award and by the masters undertaking to conclude a supplemental agreement giving the "bonus turn" to the enginemmen and others. The men's representatives demanded that the new wages standard should operate as from July 22, the owners offered September 1, and eventually August 21 was agreed to.

While the workers' demands for higher wages were based mainly upon the increased cost of living, the masters' profits, that perennial bogey of a certain type of trade unionism, played the principal part in bringing about the crisis. A considerable number of people are under the impression that the bulk of the difference between the pit-head price of coal and the price the consumer (either wholesale or in domestic quantities) has to pay, goes into the pockets of colliery owners as "profits." Facts, however, compiled from incontrovertible data and put forward by men of unquestioned integrity do not justify that view. The following statement is based upon confidential returns from 79 colliery firms in South Wales and Monmouthshire, compiled by a well-known firm of Leeds chartered accountants. This statement shows that the 79 firms are responsible for an annual output of 33,983,829 tons and employ 121,722 men. The total profit for the year ending December 31st, 1914 (or in the financial year ending nearest to that date), after payment of interest on debentures or other loans and preference shares, was £1,712,047 5s. 3d., which works out at 1s. .09d. per ton on the above output.

The following analysis of the returns is furnished:—

PROFITS

No. of Firms	Profit per ton	No. of Men employed	Output, Tons
3	Under 3d.	6,106	1,620,087
12	3d. and under 6d.	10,547	3,209,123
4	6d. „ „ 9d.	6,331	1,788,589
6	9d. „ „ 1s.	10,756	2,783,379
10	1s. „ „ 1s. 6d.	13,545	4,602,930
8	1s. 6d. „ „ 2s.	26,720	8,033,746
2	2s. „ „ 2s. 6d.	1,420	432,776
5	2s. 6d. and upwards	18,676	4,802,074

LOSS OR NO PROFITS

No. of Firms	Loss per ton	No. of Men employed	Output, tons
16	Under 1s.	22,303	5,606,230
9	1s. and over	3,648	781,042
4	Amount not disclosed	1,670	323,903

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By far the greater proportion of the collieries are situated within the steam coal area of South Wales. Of the total quantity produced at the collieries controlled by these 79 members 6,711,175 tons, or 19.8 per cent., was produced either at a loss or without profit on the ordinary capital, while the proportions of the total output making profits under 1s., 1s. 6d., 2s., and 2s. 6d. per ton are shown in the following statement: 47.4 per cent. (16,112,303 tons) of the total production of nearly 34,000,000 tons made a profit of less than 1s. per ton; 60.9 per cent. (20,715,233 tons) of the total output yielded a profit of under 1s. 6d. per ton; 84.6 per cent. (28,748,979 tons) yielded a profit of less than 2s. per ton. Only on an output of 5,234,850 tons, or 15.4 per cent. of the total production, was there earned a profit of 2s. 6d. and over per ton on the ordinary capital, while nearly three times this quantity, produced by 29 colliery concerns, was marketed either at a loss or at a profit of less than 6d. per ton. A fact of great importance, but one which perhaps is not generally known, says the report, is that the steam coals requisitioned for naval purposes are supplied by the colliery owners at prices fixed by the Admiralty.

On July 13th the Government introduced the Price of Coal (Limitation) Bill. This measure proposed to limit the addition to the price of coal paid by the non-existing contract consumer; the limit being fixed at 4s. per ton in excess of the price ruling in the various producing districts on June 30th, 1914. The Bill was severely handled in the House of Commons and was generally regarded as an inadequate measure by the public whom it is intended to protect and benefit.

The Government by an Order in Council forbade the export of coal as from August 13th to any destination other than British possessions, but permitted exporters to the prohibited areas (*i.e.*, neutral countries) to apply for licenses to export on "special forms." A semi-official statement explained that no restrictions would be placed on shipments of coal to our Allies, particularly to France. It is assumed that this prohibition will end what amounted to a veritable scandal, namely the enormously increased shipments to Northern Europe of coal which the importing countries could not possibly consume, shipments, too, which were rendered safe by the domination of the British Fleet.

Since the war began the output of coal in the United Kingdom has fallen off. A return issued in September gives the following figures:—

		Tons	Tons
Half-year to June 30, 1913	...	145,923,000	
" " Dec. 31, 1913	...	141,489,000	281,763,000
" " June 30, 1914	...	140,274,000	
" " Dec. 31, 1914	...	125,869,000	253,195,000
" " June 30, 1915	...	128,826,000	
A shortage in the first 12 months of war of			<u>28,568,000</u>

Trade in War-time

COTTON AND CONTRABAND

MR. Edgar Crammond in his estimate of *The Cost of the War* refers to the Trade Returns, which reflect one phase of that cost. The value of imports into the United Kingdom during the twelve months to 31 July, 1915, was £766,813,713, an increase compared with the corresponding months of 1913-14 of £2,779,927; the value of exports during the same period was £348,712,133, a decrease of £172,392,258. Comparative figures for the two years show:—

TABLE A.

IMPORTS			EXPORTS (Re-exports excluded)	
Month	1913-14 £	1914-15 £	1913-14 £	1914-15 £
August ...	55,975,704	42,342,707	44,110,729	24,211,271
September ...	61,355,725	45,006,607	42,424,864	26,674,101
October ...	71,730,176	51,379,435	46,622,699	28,601,815
November ...	68,467,075	55,518,180	44,756,188	24,901,619
December ...	71,114,874	67,316,898	43,326,920	26,278,928
January ...	68,005,009	67,401,006	47,806,165	28,247,592
February ...	62,053,651	65,268,814	41,261,797	26,176,937
March ...	66,947,315	75,590,918	44,518,661	30,176,066
April ...	61,626,830	73,678,288	39,946,822	32,169,733
May ...	59,099,290	71,644,966	42,051,190	33,608,992
June ...	58,281,653	76,117,797	39,872,976	33,233,568
July ...	59,376,484	75,548,147	44,406,380	34,721,511
TOTALS	764,038,786	766,813,713	521,104,391	348,712,133

Expressed in percentages these monthly totals—the exports of manufactured goods and re-exports being also shown—are as follows:—

TABLE B.

Month	IMPORTS + = Inc. — = Dec. Percentage	EXPORTS + = Inc. — = Dec. Percentage	MANUFACTURED EXPORTS + = Inc. — = Dec. Percentage	RE-EXPORTS + = Inc. — = Dec. Percentage
August ...	- 24·32	- 45·11	- 44·83	- 45·77
September ...	- 26·57	- 37·12	- 36·29	- 23·04
October ...	- 28·12	- 38·65	- 37·73	- 24·86
November ...	- 18·23	- 45·03	- 43·73	- 29·46
December ...	- 5·00	- 39·34	- 37·07	- 39·65
January ...	- 0·88	- 40·91	- 43·63	- 23·14
February ...	+ 5·18	- 36·31	- 33·44	- 33·42
March ...	+ 12·91	- 32·21	- 35·12	- 15·40
April ...	+ 19·55	- 19·46	- 22·47	- 7·71
May ...	+ 21·22	- 20·00	- 22·02	- 1·23
June ...	+ 30·60	- 16·65	- 17·52	+ 6·81
July ...	+ 27·23	- 21·80	- 21·90	+ 20·22

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In Table A export values shown are those of British exports only; if re-exports are added to the monthly figures the total for the year ended July 31, 1915, is £437,831,197; when compared with the corresponding period of 1913-14, the falling off amounted to 32.2 per cent.

The value decline under exports and re-exports was heaviest in August, 1914, the first month of the war, when it amounted to £23,630,124, and lightest in June, 1915, at £6,042,503, when the first effects of national conservation of energy in the direction of the systematic out-turn of munitions of war were experienced. The *excess of imports over exports*, however, especially during the latter part of the year ended 31 July, 1915, was pronounced, the more so as the import figures for May, June and July are unreliable to the extent that in these monthly totals certain goods, the property of the Government or of the Governments of the Allies are not included. The value excess of imports from August, 1914 to July, 1915, inclusive of bullion and specie, was £342,479,486, and compares with an excess of only £142,000,000 for the corresponding twelve months. Stated month by month these excesses of import values over exports were as follows:—

TABLE C.

Month	EXCESS IMPORT VALUES over TOTAL Exports £	INCREASES compared with corres- ponding months £
August	13,711,603	9,997,127
September	13,058,455	980,607
October	15,597,763	86,430
November	25,278,534	9,563,266
December	35,167,424	17,107,993
January	32,257,949	21,656,048
February... ..	32,222,707	21,719,294
March	37,847,719	24,455,360
April	31,551,501	20,660,737
May	27,782,655	21,111,074
June	33,523,890	23,868,647
July	31,417,846	24,272,658
Bullion and Specie 12 Months	13,566,440	5,438,424
TOTAL ...	342,479,486	200,867,665

Against the normal excess of import over export values it is impossible to show the usual offset in the shape of profits accruing to this country arising from the freight charges of our mercantile marine which, despite international competition, has been in the past responsible for a very high percentage of the total ocean-borne traffic of the world. On the other hand our national expenditure in neutral countries both for foodstuffs and munitions of war is favourably affecting British investments in these countries, and ultimately a proportion of our present expenditure in these countries will return to us in the shape of dividends and increased

profits earned upon British capital invested in or employed in these neutral countries. The excess of import values shown in Table C has been enhanced, of course, by the higher prices that have ruled throughout the world for the bulk of the commodities indicated as the inevitable outcome of the European struggle.

Apart from the Baltic sea-borne traffic between her northern ports and those of Scandinavian countries, Germany's sea trade abruptly ceased on the outbreak of hostilities, while that of Austria-Hungary was reduced to trivial dimensions in the Adriatic. The effective control of the main ocean routes by the British fleet precluded the possibility of the Dual Alliance receiving direct supplies from the great producing countries overseas, and as the original enemy plan of campaign had been upset to the extent that stocks of certain essential commodities threatened to give out, German diplomacy speedily arranged to receive these necessary imports through neutral countries. Orders in Council by the Allied Governments declaring many of these commodities contraband or forbidding the export of them from their own territories, had the ultimate effect of restricting enemy supplies in these directions. In the case of cotton, however, no obvious attempt was made during the first year of the war by the British Government to preclude supplies of this commodity reaching European neutral countries. The result is seen in the following table covering the United States exports of raw cotton during the first ten months of the war. These figures, based upon the U.S. Department of Commerce Statistics, were supplied by *The Morning Post's* Washington correspondent, in August last. The correspondent shows that in the fiscal year 1913-14, 8,008,300 bales (of 500 lbs. each) of raw cotton were exported to Europe; in the first ten months of the war 7,269,073 bales were exported, the shipments being divided as follows:—

Country	1913-14 Bales (of 500 lbs.)	1914-15 Bales (of 500 lbs.)
Austria	97,689	Nil.
Germany... ..	2,664,033	242,661
Denmark	100	35,257
Italy	526,073	1,018,469
Netherlands	33,822	501,760
Norway	3,525	54,666
Sweden	46,266	741,637
Spain	249,185	411,322
TOTAL ...	3,556,693	3,004,722
Great Britain ...	2,290,342	3,593,612
France	1,072,582	611,480
Russia in Europe ...	88,688	59,200
* TOTAL ...	4,451,607	4,264,301

These figures were roughly confirmed by statements made in the House of Commons in June and July. It was assumed that the excess supplies which have reached neutral countries

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since the war broke out have found their way to Germany. On the part of Denmark, Holland and Sweden it was contended that hitherto they had obtained their supplies *via* Germany; this view did not obtain general acceptance. It is, however, to some extent borne out by the Foreign Office Return issued in August of the import of raw and waste cotton into Scandinavia and Holland during May, June, and July, 1915, compared with the normal average:—

	Imports in				Normal imports for three months		
	May	June	July	May to July	Total	Total, less all exports	Total, less exports to enemy countries
	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Norway	532	1,018	482	2,032	966	945	966
Sweden	444	2,945	3,138	6,527	5,900	5,679	5,832
Denmark... ..	156	293	1,087	1,536	1,617	1,581	1,599
Holland	924	1,935	4,390	7,249	26,820	8,352	11,004
Scandinavia and Holland	2,056	6,191	9,097	17,344	35,303	16,557	19,401

As cotton plays so important a part in the manufacture of explosives, leaders in the cotton industry like Sir C. W. Macara, scientists like Sir William Ramsay and others, insisted that the British Government should make cotton absolute contraband. The question however was, as any one who has inside knowledge realised, by no means so simple as it appeared. Time will doubtless divulge some of the reasons which hampered action by the British Government until August, 1915, when, after negotiations with America, cotton was declared absolute contraband. The magnitude and delicacy of the economic problem are shown in the expert estimate that the cotton output of the world is worth £350,000,000 annually. In regard to cotton and other commodities arrangements were made with a Netherlands Overseas Trust which undertook that none of the goods delivered to them under a Board of Trade license should pass into enemy countries.

A similar agitation was maintained in connection with the metal market over which Germany held control though so much of the trade was derived from British possessions. (See Sir Leo Chiozza Money on "A Business-like Empire.") This was especially true of spelter, and owing to arrangements of long-standing Great Britain found that she could only obtain supplies from her own possessions through firms closely and directly associated with Germany. In July, 1915, when spelter was worth £30 per ton in Germany it was realising £100 per ton in Great Britain. The Australian Government showed itself especially anxious to discover some means of escape from the control which Germany had secured over the Australian metal market and it was proposed to create an Australian Metal Exchange controlled by the Government. The matter has actively engaged the attention of the Australian section of the London Chamber of Commerce.

The Ministry of Munitions

ON June 9, 1915, an Act of Parliament was passed creating a Ministry of Munitions in connection with the present war. The Minister was given powers to take over the duties of any existing office concerned in the supply of munitions; his annual salary is £5,000, and the office is not to be continued beyond a period of 12 months after the conclusion of hostilities.

On July 2 an Act was passed providing for the efficient manufacture, transport and supply of munitions. It prohibited strikes and lock-outs, as a result of differences as to wages, hours of work, etc., on the part of any one engaged in the manufacture or supply of munitions, made the Board of Trade referee and gave the Minister of Munitions power to make certain establishments controlled establishments for the purpose of limiting profits and dealing with the proposals for change in conditions of service on the part of the employees. Any rule, practice or custom not having the force of law which tended to restrict production or employment was to be suspended, and employer and employee were to comply with any regulations made by the Minister. Net profits were to be divisible under the Act if they exceeded by one-fifth the standard amount of profits calculated on an average of the two years previous to the war, such excess being paid to the National Exchequer. Penalties for offences under the Act not to exceed £5 for each day or part of a day during which contravention continues, or if the employer be guilty for each man in respect of whom such contravention takes place. Any departure authorised from the practices of workshops prior to the war is for the period of the war only; nothing is to prejudice the position of employers or employed after the war. War Service Badges may be worn by authority from the Minister of Munitions; for wearing unauthorised badges the penalty not to exceed £50.

On July 28 Mr. Lloyd George, the Minister of Munitions, explained the work already done in setting up ten large National Arsenals and sixteen factories, arranging co-operative areas for the turn-out of munitions and the starting of an Inventions Branch which should do for inventions for land warfare what Lord Fisher's board will do for sea warfare. By September 30, 1,000 establishments had been declared "controlled" under the Act. No information as to which establishments these are was given, "since the Naval and Military authorities consider it undesirable to publish" information concerning those engaged in munitions.

At the end of July the announcement that Sir Percy Girouard had severed his connection with the Ministry of Munitions caused some discussion, but it was stated that he had his own department, though on the score of accommodation he was no longer at the offices of the Minister of Munitions, 6, Whitehall Gardens. Sir T. Salter Pyne, K.C.S.I., was appointed to a post in the Ministry in connection with the manufacture of fuses and cartridge cases.

The Munitions Inventions Branch of the Ministry of Munitions was constituted in August with Mr. E. W. Moir,

M.Inst.C.E. and M.Am.Soc.C.E., as comptroller. The Branch considers projects for inventions relating to munitions for warfare on land, or matters appertaining thereto. The Comptroller and staff of the Branch are assisted in their work of examination, and, if thought necessary, in the investigation and development of any projects considered worthy of being developed, by a panel of honorary scientific and other experts. The following gentlemen act on this panel: Colonel Goold Adams; Horace Darwin, Esq., F.R.S.; Macdougall Duckham, Esq.; W. Duddell, Esq., F.R.S.; Sebastian Z. de Ferranti, Esq., D.Sc.; Professor Glazebrook, F.R.S.; Sir Robert Hadfield, F.R.S.; Professor J. S. Haldane, F.R.S.; Colonel N. B. Heffernan; Sir Alexander Kennedy, F.R.S.; F. W. Lanchester, Esq.; Professor A. P. Laurie, M.A., D.Sc.; Professor Vivian Lewes, M.A.; Michael Longridge, Esq.; W. H. Maw, Esq., M.I.C.E.; Sir Hiram Maxim; Captain Moore, R.N.; Sir Henry Norman, M.P.; F. G. Ogilvie, Esq., C.B.; Major-General G. K. Scott Moncrieff; Wilfrid Stokes, Esq.; James Swinburne, Esq., F.R.S.; Sir Joseph John Thomas, F.R.S.; A. J. Walter, Esq., K.C.; C. J. Wilson, Esq.

Science and Trade Organisation

AN agitation was started immediately after the declaration of war to re-capture the trade which German organisation and German genius for adapting other nations' discoveries had secured. One instance was the aniline dye industry. In March, 1915, British Dyes Limited was issued with a capital of £2,000,000, half to be subscribed by the public, half by the British Government on mortgage. The scheme was much criticised, particularly by experts like Sir William Ramsay and Sir Henry Roscoe, on account of its want of adequate scientific control and of its failure to promise future exclusion of German dyes. It went through in a modified form. The directors have established a Research Department under the direction of Dr. G. T. Morgan, F.R.S., of the Royal College of Science for Ireland, Dublin. They have also appointed a Technical Committee, under Dr. M. O. Forster, F.R.S., and an Advisory Council, under Professor Meldola, F.R.S.

On July 26 a White-paper was issued by the Board of Education outlining a scheme to establish a permanent organisation for the promotion of industrial and scientific research, with a view to enabling British trade and industry to compete successfully with its most highly organised rivals. The scheme provides for the establishment of:—(1) A committee of the Privy Council responsible for the expenditure of any new moneys provided by Parliament for scientific and industrial research. (2) A small Advisory Council responsible to the Committee of Council, and composed mainly of eminent scientific men and men actually engaged in industries dependent on scientific research.

The Committee of Council includes the Lord President, the Chancellor of the Exchequer, the Secretary for Scotland, the President of the Board of Trade, the President of

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the Board of Education (Vice-president of the Committee), and the Chief Secretary for Ireland, with such other Ministers and Privy Councillors as it may be thought desirable to add. The first non-official members of the Committee are:—Lord Haldane, Mr. Arthur H. D. Acland, and Mr. Joseph A. Pease, M.P.

The first members of the Advisory Council are:—Lord Rayleigh, O.M., F.R.S., LL.D.; Mr. G. T. Beilby, F.R.S., LL.D.; Mr. W. Duddell, F.R.S.; Professor B. Hopkinson, F.R.S.; Professor J. A. McClelland, F.R.S.; Professor R. Meldola, F.R.S.; Mr. R. Threlfall, F.R.S.; Sir William S. McCormick, LL.D. (Administrative Chairman).

The primary functions of the Advisory Council are to advise the Committee of Council on:—

Proposals for instituting specific researches. Proposals for establishing or developing special institutions or departments of existing institutions for the scientific study of problems affecting particular industries and trades. The establishment and award of research studentships and fellowships.

Discoveries made in the course of these researches will be made available for the public advantage. The Advisory Council will work in conjunction with learned societies and professional associations.

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Wireless and the War

WIRELESS operations have played a vastly important part in the war. Wireless telephony has undergone remarkable developments at the front, and its advantages, so invaluable to men who may have to move at any moment, over a system which involves the re-arrangement of many miles of wires are obvious. What wireless telegraphy has done, any newspaper reader may estimate for himself. It has enabled fleets at sea to locate each other; it was a wireless message that enabled the *Sydney* to round up the raider *Emden*; it is by wireless that the Allies have learned immediately what reports the enemy issues to his own people, and it was to wireless that the Germans on the outbreak of war owed the safety of so large a part of their mercantile marine. It was only in 1896 that Signor Marconi applied for his first British patent, and an official demonstration showed the possibility of sending wireless messages a couple of miles. The Germans in 1914 had wireless stations in the Pacific, in West and South West Africa, in America, even in the Arctic regions, most of which have been either captured or destroyed. At the annual meeting of Marconi's Wireless Telegraph Company on July 26, 1915, Mr. Godfrey Isaacs outlined the efforts made by Germany to secure control of wireless telegraphy throughout the world, and told a story which shows how vital to Great Britain and her Dominions are the stations which connect them up in a wireless chain. Five years ago, said Mr. Isaacs, the German company, thanks to the large subsidies it obtained from the German Government, had obtained the preponderating position in every part of the world.

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with the exception of Italy, France, and Great Britain. The English company had to contend not only with the German agents, but with the German Ambassadors. The German company had the German Government behind it, and it mattered little on what conditions it entered into contracts for the construction of stations. The British company in April, 1910, applied to the British Government for the right to erect high-power stations in all the British possessions, but this right was refused them at the time, although out of this was born the Imperial chain. Immediately the idea was suggested, the German Government resolved to build, and at once without discussion proceeded to erect a chain of wireless stations in all German colonies. Mr. Isaacs was informed that the price which the German Government paid for each of these stations was three times the price which the British company had asked of the British Government. Further, the German company obtained a subsidy equal to three times the amount the British company ever contemplated they would get in any year from the royalty they were to receive on their stations. The German stations were estimated to have cost the German Government two millions sterling. It was a good investment. Great Britain declared war on Germany on August 4. At five o'clock in the afternoon of that day Germany sent out a message to all its wireless stations, which passed it on from one to another; each station sent it out to sea, covering a radius of something like 2,000 miles or more. to this effect: "War declared upon England; make as quickly as you can for a neutral port." By that message, which occupied but a few minutes, Germany contrived to save the greater part of its mercantile marine. If it had but saved one of its big ships, the *Vaterland*, or any one of that class it would, said Mr. Isaacs, have paid for the whole cost of its wireless stations.

The Army Medical Services

AMONG the marvels which will ever be associated with the war, none will rank higher than the achievements of the Army Medical Services. We hear comparatively little of them now, but experiments and results are being carefully noted, and some day, no doubt, a full record will be forthcoming of the miracles worked at the front and in the hospitals by those greatest of Allies, Science and Humanity, in the shape of the doctor and the Red Cross nurse.

The achievements of sanitation alone would make this war remarkable among all wars. Never were such numbers of men engaged before: never, in the British Army at least, have fewer men died from sickness and disease. In the South African War of 22,000 lives lost, 14,000 were due to disease, which also accounted for 57,000 invalids. Serbia has been the exception in the present war. But there, too, a great work has been accomplished: typhus had the Serbians in its fell grip, but the doctors have practically eliminated it, so that it may be said what they could not prevent they have cured. Stories reach us of the most wonderful operations. Men who in other days would certainly have died of their wounds have

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been provided with artificial parts, have been patched up in the most amazing way, and given a chance to continue life as useful members of society. Even nerves shattered by shrapnel and modern artillery are said to have been successfully treated by neural surgery. At the Académie des Sciences recently, Professor Landouzy and others explained some of the discoveries which have been made in antiseptics, the application of which hitherto, essential to the saving of life, has nevertheless done irreparable mischief to tissues. Dr. Alexis Carrel and Mr. Henry Dakin, of the Rockefeller Institute, have, by adding boric acid and carbonate of lime to hypochloride of lime, robbed the most powerful of antiseptics of its harmful qualities without reducing its efficacy. Thousands of lives again are reported to have been saved by the Polyvalent serum for wounds, discovered by MM. Leclanche and Vallée.

To Col. Sir Almroth E. Wright, M.D., F.R.S., Consulting Physician to the Expeditionary Force, the Army owes the discovery of a serum for preventing typhoid, and France gratefully awarded him the Leconte prize of £2,000. In an address on Wound Infections (published by the University of London Press, Ltd.) he alluded to the brilliant results achieved by both anti-typhoid and anti-tetanus inoculation. He suggests that an Advisory Committee, acting with the services, for the treatment of the sick and wounded "should be charged with the duty of synopsising the clinical experience won in the war; of finding out what results the various therapeutic procedures had given, and of drawing up on the basis of these inquiries general instructions and recommendations for the treatment of different categories of cases." Lord Moulton's Medical Research Committee and its Advisory Council will have been provided with ample scope for its efforts at co-ordination by the experience gained in the greatest of wars.

Naval Inventions Board

EARLY in July, Admiral of the Fleet, Lord Fisher of Kilverstone was appointed Chairman of the Inventions Board established to assist the Admiralty in co-ordinating and encouraging scientific effort in relation to the requirements of the Naval Service. The Board is assisted by (a) a Central Committee and (b) a Panel of Consultants composed of scientific experts, who will advise the main Committee on questions referred to them.

The Central Committee with Lord Fisher as President consists of: Sir J. J. Thomas, O.M., F.R.S.; Sir C. A. Parsons, K.C.B., F.R.S.; and Mr. G. T. Beilby, F.R.S.

The Consulting Panel comprises the following: Professor H. B. Baker, F.R.S.; Professor W. G. Bragg, F.R.S.; Professor H. C. H. Carpenter; Sir William Crookes, O.M., F.R.S.; Mr. W. Duddell, F.R.S.; Professor Percy Frankland, F.R.S.; Professor Bertram Hopkinson, F.R.S.; Sir Oliver Lodge, F.R.S.; Professor W. J. Pope, F.R.S.; Sir Ernest Rutherford, F.R.S.; Mr. G. Gerald Stoney, F.R.S.; and Professor R. J. Strutt, F.R.S. Such further names are added as experience show to be necessary.

Railway Returns

The Board of Trade Railway Returns for the year 1914 were issued in the briefest form in September last. They showed the total paid-up capital to be:—

1918	£1,834,011,000
1914	£1,341,222,000
Increase in 1914	<u>£7,211,000</u>

The receipts and expenditure were:—

	1913 £	1914 £
Total Receipts	139,451,000	139,098,000
Expenditure ...	87,320,000	88,173,000
Net income	<u>52,131,000</u>	<u>50,925,000</u>

The decline in the net income in 1914 was £1,206,000. The total receipts in 1914 included the estimated amount receivable by the companies under agreement with the Government in respect of the control of British railways during the war period, August 5—December 31.

London's Water

The report of the Metropolitan Water Board for 1914-15 shows that the daily average of water supplied to London was 245 million gallons; or 89,420 million gallons in the year. The estimated daily average per head of the population was 36.08 gallons. This was drawn from the Thames, the Lea and various wells and springs. The net water rental received was approximately £2,938,400.

Britain's Growth Since 1850

A Board of Trade Return issued in August gives particulars of Britain's growth since 1850. The population in 1851 was just over 27 millions; in 1914 it was 46 millions. In 1871 the death rate per 1,000 was 21.5; in 1914, 14.14; the birth rate was 33.8 in 1871, and 23.9 in 1914. British shipping tonnage has increased from 3,662,344 to 12,415,204, imports from £182,955,000 to £601,161,000, exports from £74,448,000, to £430,721,000, and the yield of the Income Tax per penny, from £1,162,250 to £3,108,809. Imported grain, flour, and meal was valued at £41,629,000 in 1861, and at £142,951,000 in 1914. Paupers in 1861 numbered 1,054,099 and cost £7,058,000; in 1914 they numbered 925,626 and cost £17,941,000. In 1851 the money in the post office and trustees' savings banks amounted to £30,278,000; in 1914 they were £273,750,000. The clearings of the London Clearing House were £4,826,034,000 in 1871 and £14,655,048,000 in 1914.

Events During Printing

- October 4.** Russia demanded dismissal of German officers from Bulgarian army. No reply was given.
- October 6.** French captured Tahré and took 1,000 prisoners.
- October 7.** German-Austrian force under von Mackensen invaded Serbia, suffering heavy losses. Serbians abandoned Belgrade, but stubbornly opposed further advance of the enemy.
- October 8.** British and French began to land troops at Salonika to support Serbia, and Allies' representatives left Sofia.
- October 11.** Bulgarian troops invaded Serbia at two points.
M. Zaimis said that Greece would maintain neutrality for the present. M. Venizelos in reply showed dangers to Greece if nothing was done to prevent the aggrandisement of Bulgaria.
Sir John French inflicted a "very severe reverse" on the Germans. Over 7,000 German dead counted.
- October 11-12.** Russians assumed vigorous offensive in neighbourhood of Dvinsk, and Gen. Ivanoff followed up his success in Galicia by breaking enemy's line at Strypa.
- October 12.** Mr. Herbert Samuel announced that Budget proposal to abolish halfpenny postage was to be dropped.
- October 13.** Zeppelin raid over London area and Eastern Counties. Casualties: 15 military killed, 13 injured; 41 civilians killed, 101 injured.
- October 14.** M. Delcassé, French Foreign Minister, resigned.
- October 15.** Gallipoli casualties to October 9 announced: 1,185 officers 17,772 men killed; 2,632 officers, 66,220 men wounded; 383 officers, 8,707 men missing. These included Australian and New Zealand losses, 29,121, of whom 335 officers and 5,664 men were killed. Great Britain declared war on Bulgaria.
Lord Derby inaugurated his great recruiting canvass as final effort to make the voluntary system a success.
- October 18.** Resignation of Sir Edward Carson, Attorney-General.
Gen. Sir C. C. Monro, K.C.B. succeeded Gen. Sir Ian Hamilton in the Gallipoli command.
- October 19.** Italy declared war on Bulgaria.
News of inhuman execution of Nurse Cavell by the Germans in Brussels shocked the whole civilised world.
- October 20.** South African elections resulted in great triumph for Gen. Botha and the Loyalists.
- October 21.** Allies reported to have offered Cyprus to Greece if she would join them. The offer was not accepted.
- October 23.** The King appealed to his people voluntarily to join the army. "The end is not in sight."
- October 27.** Germans and Bulgarians reported to have linked up forces on the Danube, and Serbia's position to be growing desperate.
- October 28.** M. Viviani and his colleagues resigned, and new French Ministry formed under M. Briand.
Von Hindenburg continued to strain every nerve to capture Riga. Accident to the King whilst inspecting troops in France.
- November 1.** Germans reported capture of great Serbian arsenal.
Sir F. E. Smith appointed Attorney-General.

During October more than 30 German vessels, including one cruiser, were reported to have been sunk in the Baltic by British submarines.

British Trade Returns Jan.-Sept. 1915: imports £643,888,258, an increase of 23%; exports £282,091,686, a decrease of 19% on Jan.-Sept. 1914.

INDEX

[As "The Countries of the World," Biographies ("Who's Who in the War") and "V.C.'s" are arranged alphabetically it is unnecessary to include most of the references in the index. See also "Events During Printing" page 333.—EDITORS.]

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