# IMPERIAL BRITAIN

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# IMPERIAL BRITAIN

An Illustrated Record of Services
rendered during the War
for Freedom

1914-1918



## Volume II. BIOGRAPHICAL

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# IMPERIAL BRITAIN
## 1914-1918

## INTRODUCTION

THIS, the second volume of IMPERIAL BRITAIN, reflects in a comprehensive manner the individual services which were rendered during the terrible years of 1914–1918. The records in this volume show very clearly how, in every direction and in every class, the efforts of the country were turned towards assisting in the prosecution of the war. The sacrifices which were made, from the King to the lowest of his subjects, in contributing to the efficiency, welfare, and comfort of the troops on land, sea, and in the air, and by those whose abilities enabled them to engage in the higher branches of organisation and administration, are reflected through the records of services included in this volume. The volume, indeed, is one of the finest testimonies to the people of this country, who in the large majority of cases swept aside all ideas of personal aggrandisement and profit, in order that the country might be equipped in the most efficient manner for defeating the enemy's schemes against us. Many hundreds of instances are known which could not, however, be recorded in this volume, of the sacrifice of leisure and comfort, made with the sole object of serving the interests of humanity. It is obvious, however, that where, with comparatively few exceptions, every individual throughout the whole country devoted a portion, if not the whole, of his or her time to work of some description during this period, a volume with very definite limitations in regard to space would be totally inadequate to compass anything approaching a complete history of this varied work. In one direction especially is this limitation conspicuous, namely, in recording the services so generously and efficiently rendered by women in many branches of work, either in

their own homes, in hospitals, or in certain contributive services associated with industrial and transport work. The unexampled manner in which women replaced men in industrial operations of varied descriptions is fully set forth and illustrated in Volume I. of this work. The records which, however, do appear in the present volume may be regarded as typical of the whole of the country. Its publication is undoubtedly justified, and the two volumes will stand as a permanent memorial of the great personal sacrifices made and the achievements attained.

## HIS MAJESTY KING GEORGE V.

No monarch in any period of the world's history has ever been called upon to fill such an exacting rôle as was King George V. during the period of the Great War. There can, however, be no doubt that by his consistent tact and forethought he exercised a very influential power in those directions which held the nation together. Removed as the monarchy is in this country from participation in any direct military or naval action, King George realised immediately that it was the humanitarian aspects of the struggle in which he could most beneficially serve the interests of his people. With this realisation clearly before him, he endeavoured to the utmost of his opportunities to express as far as possible his sympathy with, and support of, his people engaged on the various fields of battle, on the seas, or in the air, as well as with those engaged in providing the necessary weapons of warfare at home. His visits to the battlefields of France and Flanders heartened his troops in the desperate struggle in which they were engaged, even as did his many visits to the industrial centres of the country urge the workers to put forth their utmost endeavours to meet the requirements of the fighting men at the Front. To King George V. the nation owes an inestimable debt of gratitude for the exercise of those qualities and abilities which were vital to the cohesion and stability of the people during those terrible years.

## HER MAJESTY THE QUEEN

With that ready response which has always characterised Her Majesty's efforts in the years of peace, Queen Mary placed herself in the forefront of women's work of every description during the war. Her sympathies with the wounded and bereaved, and with those women who had so courageously filled in the gaps caused by the withdrawal of such enormous numbers of men from industrial life, were expressed not only by word and official visits, but by active participation in the works which contributed so largely to the comfort and welfare of our fighting forces, and of those who had been left behind in their homes. Her visits to the hospitals in France and at home, and to industrial workshops throughout the country, inspired a spirit of mutual trust and sympathy, and served a most vital purpose in those times of suffering and loss.

## HIS ROYAL HIGHNESS THE PRINCE OF WALES

At the outbreak of war His Royal Highness was Lieutenant in the Grenadier Guards. He was promoted Captain, 1916; Major, 1918. From 1914 till 1915 he acted as A.D.C. to Sir John French; was Staff-Captain on Staff of General Sir A. J. Murray, K.C.B., commanding Forces in the Eastern Mediterranean, 1916; and D.A.Q.M.G., and General Staff Officer 2nd Grade, 1916. With that sportsmanlike spirit which characterises his life, he exhibited a great desire to associate himself with those who were in the fighting line, and accompanied his regiment to the Front. Throughout the whole period of his service in France he exhibited that spirit of adventure and courage which endeared him to the hearts of all the troops with whom he came in contact. His example of pluck and cheeriness undoubtedly inspired our men, and in this manner His Royal Highness rendered very conspicuous services to the country and the Empire. Mixing with officers and men as such, not only among the troops of the Motherland, but also among those of our overseas Dominions, he welded the ties between these more firmly by his consistent bonhomie and friendliness. His Royal Highness' war decorations include the Military Cross, and Orders of the Golden Fleece, Grand Croix de la Légion d'Honneur, Knight's Cross of Military Order of Savoy and of Annunziata (Italy), of the Elephant of Denmark, the Grand Cross of St Olav (with chain) of Norway, of St George, 3rd class (Russia), Roumanian Order of Michael the Brave, the Croix de Guerre (France), Knight of Justice of the Order of St John of Jerusalem in England.

## HER ROYAL HIGHNESS PRINCESS MARY

With the admirable example of Her Majesty before her, Princess Mary also rendered conspicuous and valuable services to the Empire during the war. Her continual activities among the wounded, and institutions organised for the purpose of contributing to the comfort and welfare of women and children throughout the war, ably supplemented the good work which was carried out by the whole of the Royal Family during the years of war.

VISCOUNT ALLENBY. Field-Marshal Sir Edmund H. H. Allenby, G.C.B., G.C.M.G., K.C.B., C.B. Was in command of cavalry in 1914. On 21st June 1917 he assumed command of the Egyptian Expeditionary Force. Beersheba was captured 21st October; Gaza, 7th November; and Jerusalem, 9th December. Jericho was occupied 21st February 1918, and the destruction of the 7th and 8th Turkish Armies was effected by 20th September 1918. By the end of October 1918 the enemy's army was destroyed and Palestine and Syria liberated. Decorations: Grand Officer, Legion of Honour; Grand Cordon, Order of the Nile.

EARL BEATTY, cr. 1919. Admiral of the Fleet Sir David, R.N., O.M. 1919; G.C.B., cr. 1914; G.C.V.O., K.C.B.; C.B., 1911; K.C.V.O., 1916; D.S.O., M.V.O. Commanded 1st Battle Cruiser Squadron, 1912–1916. He opened the attack on the German Fleet off Jutland in 1916, and in the same year was promoted to the command of the Grand Fleet. For his brilliant services he was created an Earl and was voted £100,000 by Parliament. He received the surrendered German Fleet at Scapa Flow in 1919. Decorations: Grand Officer, Legion of Honour; Order of St George of Russia, 4th class.

VISCOUNT FRENCH OF YPRES. Field-Marshal John Denton Pinkstone French, O.M., K.P., K.C.M.G., G.C.B., K.C.B., G.C.V.O., D.C.L., LL.D.; Lord Lieutenant of Ireland, 1918; Chief of Imperial General Staff and Inspector-General of the Forces, 1918; Commander-in-Chief of the Expeditionary Forces in France, 1914–1915. He conducted the great retreat from Mons, and the first battle of the Marne. He resigned his position of Commander-in-Chief in France in December 1915, and was appointed Commander-in-Chief of the troops stationed in the United Kingdom, 1915–1918. First Military Member, Army Council. Decorations: Grand Cross, Legion of Honour; Order of St George, Russia; Médaille Militaire of France.

EARL HAIG OF BEMERSYDE. Field-Marshal Douglas Haig, O.M., K.T., G.C.B., K.C.B., K.C.I.E., G.C.V.O., K.C.V.O., C.B., A.D.C.Gen. to H.M., 1914–1917. Commanded 1st Army, France, 1914–1915; Commander-in-Chief of the Expeditionary Forces in France and Flanders, 1915–1919; Field-Marshal Commander-in-Chief, the Forces in Great Britain, 1919. Conducted operations of British forces in conjunction with the French until March 1918, when Marshal Foch was given supreme command of all Allied forces on the Western Front, and with him achieved the ultimate overthrow of the enemy. Decorations: Grand Cordon, Legion of Honour; Grand Cross, Order of Leopold; Grand Cross, St Maurice and St Lazarus; Obolitch Gold Medal (Montenegro) and 1st Class Order of Danilo, 1917; 4th Class of St George (Russia).

VISCOUNT JELLICOE OF SCAPA. John Rushworth Jellicoe, R.N., O.M., G.C.B., K.C.B., K.C.V.O., C.B., G.C.V.O., C.V.O.; Admiral of the Fleet, 1919. He was in command of the Grand Fleet from 1914 to 1916; First Sea Lord, 1916; Chief of Naval Staff, 1917. He was voted £50,000 by Parliament for his naval services during the war. Decorations: Order of St George of Russia, 3rd class; Grand Cross of the Legion of Honour; Grand Cordon, Order of the Rising Sun with Paulowina; Grand Cordon, Order of Leopold; Grand Cross, Military Order of Savoy.

## SIR WESTCOTT S. ABELL, K.B.E., Lloyd's Register of Shipping

In May 1914 Mr W. S. Abell resigned the Professorship of Naval Architecture at the University of Liverpool, which he had held from 1910 onwards, in order to become Chief Ship Surveyor to Lloyd's Register of Shipping. Previous to his appointment at Liverpool, he was Professor of Naval Architecture at the Royal Naval College, Greenwich, being appointed thereto in 1907, at which time he was Professional Secretary to the Director of Naval Construction at the Admiralty.

It was natural, in view of Mr Abell's early training in the Navy (both as naval architect and marine engineer), that soon after the outbreak of war, when it was found necessary to construct a number of auxiliary vessels for special purposes, his old association with the Navy service should result in his being consulted by the Naval Construction Department on this subject. Mr Abell's first war work may, therefore, be described as assisting the Admiralty in the design and construction of what were at the time called "single-screw sloops," originally designed for mine-sweeping purposes, but subsequently, owing to their excellent behaviour under service conditions, employed as convoy vessels and armed patrol vessels. In this first type simplification of construction was particularly aimed at, while the practice involved in merchant shipbuilding was embodied in such a manner that material could be delivered in bulk and the number of patterns of different structural parts reduced to a minimum.

The Admiralty entrusted to Lloyd's Register, under the direction of the Chief Ship Surveyor, the entire responsibility for the construction and production of this special type of vessel, both as regards the ships themselves and also as regards delivery of all accessories necessary for the complete working of the ship. Altogether some 144 vessels of the sloop type, including subsequent modifications, were constructed and delivered at a very rapid rate. The first twelve vessels were put into service within six months of the placing of the orders, while the average for the first eighty was a period of only thirty weeks, including all delays. These vessels were 250 feet in length, of 1260 tons displacement, and were designed for a speed of about 17½ knots.

As the war progressed, many other types of auxiliary vessels came under the direction of Mr Abell in his official capacity at Lloyd's Register, including armed patrol vessels, twin-screw mine-sweepers, patrol gunboats, trawlers and drifters, as well as many other fleet auxiliaries. In addition to these a special class of oil tankers, termed "fleet oilers," which were capable of fuelling ships at sea, were supervised on behalf of the Admiralty, while other vessels were

converted for the purpose of fuelling at sea or for the carriage of fuel oil. This conversion involved a considerable amount of detailed attention, as in many instances it was more difficult to effect than the construction of a new ship. Altogether the fleet auxiliaries constructed under the supervision of Lloyd's Register for the Admiralty approached nearly 1000 vessels, with an aggregate gross tonnage of nearly 700,000, and involving a total outlay of nearly £50,000,000.

In the early stages of the war also the French Government placed contracts with a large number of steelworks in the United Kingdom for the supply of a special quality of shell steel under particularly exacting requirements, and during the war a total of 1,400,000 tons of this material was examined on behalf of the French Government by Lloyd's Register.

Apart from his duties in an official capacity with Lloyd's Register, Mr Abell was consulted by the various Government departments concerning the production of merchant ships, his first connection beginning with the Board of Trade about the middle of 1915, when he was associated privately with Mr Runciman in a study of the effect which submarine warfare was likely to have on the mercantile marine.

In the early part of 1916 Mr Abell assisted the Board of Trade privately in the operation of regulations issued by this department, in order to obtain the best results for the country, the aim being to secure the maximum output of ships of sizes from two to six thousand tons gross.

An admirable review of the shipping conditions during the war is contributed by Sir Westcott S. Abell to the Industrial volume of this work.

The position as regards output of new ships became more and more serious, and ultimately, in November 1916, Mr Runciman obtained the permission of the Cabinet to take further drastic steps to secure improved attention being given to merchant shipbuilding. Mr Runciman asked Mr Abell to assist him directly in this matter, and as a result a committee was appointed, consisting of Mr Abell, Mr Sanders (of the Board of Trade), and two Admiralty officials, whose duty it was to allocate the shipbuilding resources of the country in such a manner that better attention should be given to merchant shipbuilding. This new scheme was hardly in operation when Mr Lloyd George was made Prime Minister, and the Ministry of Shipping was founded under Sir Joseph Maclay, who, however, continued the arrangements made by Mr Runciman as to the allocation of shipbuilding facilities.

During the year 1916 Mr Abell assisted Mr Runciman in several directions, more especially in regard to a consideration as to the possibilities of standardisation of merchant ships, and the question of fabrication of material in places other

than shipyards. Mr Abell was also appointed a member of the Shipbuilding and Reconstruction Committee of the Board of Trade to consider the questions which had to be safeguarded in order to maintain the interests of the shipping community of the British Empire after the war, which committee reported at considerable length in March 1918.

When the Shipping Controller was appointed, he instituted the Merchant Shipbuilding Advisory Committee, under the chairmanship of Mr (now Sir) George Carter. Of this body Mr Abell was one of the original members and, as an executive officer, "Technical Adviser to the Shipping Controller." This committee, as originally formed, consisted of the chairman, two shipbuilders, two marine engineers, and an administrative officer of the Board of Trade (Mr Sanders), and Mr Abell, with Mr A. R. Duncan as secretary. The committee was entrusted with the task of putting into operation the standard ship programme of the Government, and selected five original types, varying in length from 400 to 285 feet, for which they placed orders in many shipyards, in accordance with the capacity of the establishments. This committee remained in existence in its original form for six months, until May 1917, during which time it prepared designs, plans, and specifications for five types—two types for vessels carrying 8000 tons deadweight, one type for 7000 tons deadweight, one type for 5000 tons deadweight, and one type, 285 feet in length, of 3000 tons deadweight, to be used more particularly for collier work. In the design of these vessels the number of patterns of material was reduced to a minimum in order to avoid delay caused by the changing of the steelworks arrangements, and also to obtain large stocks of necessary sections which could be drawn on with advantage by any shipbuilding locality. The committee also regulated the supply of steel material for shipbuilding and other purposes for the various establishments, and, in general, put into operation such details as would ensure the minimum expenditure of labour and material, keeping in mind the purpose intended.

The question of the output possible during 1917 was a matter that received the very earliest consideration of this committee, and the estimate prepared by Mr Abell in 1917 indicated that it was only possible to produce something like 1,200,000 gross tons of standard merchant ships during that year, while, if the labour at the shipyards, then amounting to 180,000 men, was increased by from 10,000 to 20,000, the output could be expanded to about 1,600,000 gross tons, due regard being paid to the urgent need for the construction of vessels required for Admiralty purposes.

During the six months referred to considerable attention was also paid by Mr Abell to the question of protection and design of merchant ships, with a view

to adopting such safeguards, involving the minimum of cost and labour, as would improve the chance of escape of a merchant ship from submarine attack. These questions were considered under two phases, viz. the protection afforded by external alterations, such as variation in the appearance and form of the vessel, with protective colouring in various designs; and, secondly, the protection that might be afforded by internal arrangements in the ship. In regard to the first phase, Mr Abell was asked by the Admiralty to collaborate with them, in the school they set up under Lieut.-Commander Norman Wilkinson, in the production of protective colour schemes. In connection with the last phase, Mr Abell's work indicated that for the standard ships in question the right policy to adopt (assuming that the war lasted no longer than three years) was to require the subdivision to be such that the vessel might float with any one compartment open to the sea. This feature was subsequently adopted for all standard ships up to 400 feet in length. Mr Abell's work showed conclusively that any additional protection beyond this limit would involve so high a cost that, having regard to the need of bringing the maximum quantity of goods into the country in a given period, no advantage would have been gained from the higher degree of protection until some three years had elapsed from the time at which the vessels with additional protection commenced to be built, or two years after these protected vessels had come into operation.

Special attention was also given, and several minor devices adopted, tending to preserve the intactness of the watertight bulkheads. For the purpose of this work it was necessary to estimate the numerical chances of loss of a bulkhead under conditions arising from a torpedo explosion, and Mr Abell succeeded in arranging the calculation in such a form as would give definite results. The principle of these calculations is embodied in a communication to the Royal Society. This calculation has since been extended to the more general case of passenger vessels with varying degrees of damage, and has been embodied in a suggestion put forward to the Board of Trade as superior in effect to, and more suitable to economic requirements of passenger vessels in general than, the present regulations drawn up by the International Conference on the Safety of Life at Sea, following the *Titanic* disaster.

About May 1917 the rivalry between the Admiralty and the Shipping Controller, arising out of the demands of each department on the shipbuilding resources of the country, led the War Cabinet to decide on the creation of a department which should control shipbuilding and supply ships to the best of its ability for both the Admiralty and the Ministry of Shipping. At the request of Sir Eric Geddes, then First Lord of the Admiralty, the Merchant Shipbuilding Advisory

Committee continued to act with the new department, until such time as it became possible for an organisation to be set up to take its place, and Mr Abell continued to serve on this committee, although the changes in administration caused him to resign his position of Technical Adviser to the Shipping Controller.

About November 1917 the Shipbuilding Advisory Committee was enlarged by the Admiralty Controller (Sir Alan Anderson) into the Admiralty Shipbuilding Council, which now included three additional shipbuilders and engineers, and the heads of sections of the Merchant Shipbuilding Department. The Council existed in this form, and Mr Abell continued his services thereon, until March 1918, when it resigned, and Lord Pirrie took over the responsibility for the output of merchant tonnage, under the title of Controller-General. It may perhaps be mentioned here that the cause of so many changes arose from the relatively small output of merchant ships, which, although increased from nearly 540,000 gross tons in 1916 to 1,160,000 gross tons in 1917, under the auspices of the Merchant Shipbuilding Advisory Committee, yet only amounted to just over 1,500,000 gross tons in 1918. It was the published intention of the Government to work up to a maximum annual output of 3,000,000 gross tons, already referred to; but, owing to the great and increasing demand for fighting men for the Army, it was not deemed possible to increase the labour supply for shipbuilding purposes. The entry of the United States, however, in April 1917, eased the shipbuilding question to some extent, and ensured that the supply of merchant ships would ultimately have been sufficient.

During his connection with the Admiralty Controller's Department, Mr Abell was asked to advise specially on many important questions, among which may be mentioned: the extent to which the structural requirements of merchant ships could be reduced, alternative forms of construction suitable for purposes of fabrication by bridge-builders, and various arrangements of double-bottom construction. In addition, he did considerable work as a member of the Departmental Committee which investigated the possibilities of large submarines for cargo-carrying purposes. Various emergency measures for reduction of auxiliaries and equipment were also considered during these periods, and, in particular, it was found possible to make an appreciable reduction in the length of ships' cables, articles which required much labour to manufacture. In addition, modifications of the statutory requirements for freeboard were discussed, some of which were adopted where climatic conditions were deemed suitable.

Mr Abell also continued to be actively and directly concerned in all matters appertaining to the improvement of the safety of merchant ships, and was a member of the Allied Sub-Committee dealing with such subjects. He was on

several occasions consulted by the United States authorities on questions of organisation and estimates of shipbuilding output, on the manufacture of cast-steel chain cables, and the possible reduction of the flash-point for oil (carried in the double-bottoms of merchant ships) from 150° F. to 100° F. Of this last proposal he advised rejection on account of the large increase of risk involved.

In view of the importance of labour-saving devices, Mr Abell obtained permission in 1917 to carry out a series of exhaustive tests on the possibility of electrically welding the main structure of a vessel, and was satisfied, from the results of the experiments, that it was possible in the present state of knowledge to apply electric welding to the construction of merchant ships up to 300 feet in length. The results of this investigation are contained in a communication read before the Institution of Civil Engineers in 1919, for which that body awarded a " James Watt " Gold Medal.

Mr Abell was also consulted in great detail regarding the construction of ferro-concrete vessels, and was largely responsible for the various tests employed to ascertain the suitability of material for shipbuilding purposes. The detail work was very great, and involved much consideration; and although perhaps it cannot be said that this plan of shipbuilding output proved a marked or a lasting success as a war-emergency measure, there was undoubtedly justification for the adventure, and certainly some of the unsatisfactory features were due to the novelty of the application.

## THE RIGHT HON. LORD ASHFIELD OF SOUTHWELL,

43 South Street, London, W. 1

On the outbreak of war Sir Albert Stanley, as he then was, occupied the important and responsible position of Managing Director of the Underground Railways and the London General Omnibus Company. The work involved in these great undertakings was a guarantee of his powers as an organiser; and, in order to assist, as far as possible, mobilisation in those early days, he arranged that members of the forces should be carried free on the lines he controlled, at the same time providing a large fleet of motor omnibuses and other vehicles required for military operations. During the year 1915 he continued to co-operate with the military authorities in the organisation and provision of the transport requisite during the period when the armies of Great Britain were being brought into

being. In January 1916 he was made a member of the Committee set up by the Home Office to consider the employment of men disabled in the war, as motor drivers, and was subsequently appointed Director of Mechanical Transport. In December of that year, when Mr Lloyd George formed his first Cabinet, Sir Albert was offered, and accepted, the position of President of the Board of Trade. The confirmation of the ministerial choice was ratified by his being elected as a Member of Parliament for the Ashton-under-Lyne division. With a wide experience of the necessity of organisation behind him, Sir Albert proceeded to effect a general tightening up and extension of the war-imposed measures for which the Board of Trade was responsible, and the restrictions which had been placed on the civil use of articles requisite for military operations were rigorously enforced. The Irish railways, at that time uncontrolled, were also taken over; and the unstable situation in regard to coal, cotton, and paper was eased, and eventually tided over, by these commodities being brought under Government control. The task of winding up enemy businesses in this country, which had for so long remained in abeyance, was pressed forward and completed; and Sir Albert was responsible for the introduction of legislation having as its object the frustration of surreptitious German influences on British trade. This legislation took the form of compulsory registration under the Business Names Act, and the important and far-reaching Non-Ferrous Metals Act. The scheme for the development of the British dye industry also received Sir Albert's strong and consistent support. He also created and developed the Road Transport Board, and inaugurated a special department of the Board of Trade for fostering British commerce, and the promotion of new spheres of trade and industry. His tact and business experience were exercised successfully in carrying through the negotiations with the leaders of the railwaymen's unions in regard to wages and hours of labour, as well as in adjusting other labour troubles which were threatened during the later stages of the war. He also took up, after the Armistice was declared, the vital matter of obtaining the early release from the forces, of men who had been engaged in pivotal occupations, endeavouring, wherever possible, to avoid any dependence on the State. The removal of Government control from certain commodities as soon as conditions permitted, was also a subject to which Sir Albert devoted great attention.

Prior to his accepting a ministerial position, and during the time he was engaged in official work, his efforts and abilities were concentrated on coping with the traffic problems of the Metropolis, which necessarily became aggravated by the increased demands made upon the railways during the formation and transport of the huge army that Britain eventually built up. It would seem a reasonable

conclusion to come to that, in consequence of the withdrawal of such enormous numbers of men, as well as of women, from the great centres, the transport problems would be reduced; but official figures indicate that the conditions were of a reverse character, for in 1914 the total number of passengers carried on trains, buses, and trams amounted to 1,107,992,723, while in 1918 the total stood at 1,230,334,898, and in 1919 rose again to 1,467,244,726. The great burden of this increase fell upon the railways. Shortly after war broke out, when it was realised by the military authorities that a vast system of transport would have to be established, the Company of which Sir Albert Stanley was the head was called upon to meet the immediate demands not only of the War Office but of the Admiralty. The first hint of what the war would mean in this direction emanated from the Admiralty, who required a considerable number of motor ambulances transformed and equipped for this purpose, and supplied with drivers and officers, to be dispatched to various naval bases. Within twenty-six hours the number asked for were taken off the streets, the necessary alterations made, and the adapted buses were *en route* for Chatham, Dover, and Plymouth. Difficulties arose also in regard to the personnel employed on the various bus routes, and within a couple of days the Companies had lost 3500 men who had joined the colours, and throughout the whole period of enlistment the total number drawn from the London General Omnibus services amounted to 9648 men; while from the Underground Railways 3481 men, and 2850 from the tramways and workshops, had joined up. It was under these circumstances that Sir Albert Stanley looked to the assistance that might be given by women in the various occupations which the men had quitted, and eventually 1868 women were employed on the railways, and 3683 on the buses. It is interesting also to note that no less than 1319 buses were dispatched on war service, 1223 more being held in reserve for emergency transport, while, in addition, 233 were scheduled for employment on London defence work, and 52 engaged on special air-raid service.

Not only, however, in the supply of men and vehicles did these Companies justify their importance as an essential part of the great war machine. The demands of the War Office on the various motor manufacturers of this country were so great that supplies were never quite up to requirements, and the L.G.O.C. contributed from their works a considerable number of lorries and chassis for various purposes. Although details of this contribution are given in the Industrial Volume of this work, under the name of the Associated Equipment Company, it may be stated that no less than 6175 three-ton lorry bodies, 250 two-ton lorries, 122 light lorries, 36 heavy tenders, 178 stores wagons, and over 400 complete

mobile workshops were turned out jointly by these Companies. At the same time the railway workshops at Ealing, Lillie Bridge, and Golders Green, and the tramway depot at Chiswick, were producing munitions on a considerable scale, one of the most remarkable items being the forging of the 6-inch howitzers which played so important a part in the closing stages of the war. From these brief particulars it will be realised how onerous and responsible was the work which devolved upon Sir Albert Stanley and his colleagues, and the result and victory of the Allied forces indicate in what manner this work was carried out.

## LADY ASKWITH, 12 Hans Crescent, S.W. 1

In the autumn of 1914, when the first steps were being taken to organise the nation for war, Lady Askwith was appointed a member of the Women's Unemployment Committee, formed under the Local Government Board, and rendered valuable service to the Committee in its successful efforts to cope with the many problems brought before it. Eventually this work was placed under the control of the Ministry of Labour.

Lady Askwith also served on the Queen's Collecting Committee, the Imperial War Museum Committee (under H.M. Board of Works), and the Women's War Savings Committee, and in addition to these activities joined the Y.M.C.A., becoming a member of their Munition Workers' Committee. In that capacity she organised and worked six canteens at the London Docks for the benefit of the workers in that area. She also organised the Horseferry Road Canteen, one of the largest hostels for soldiers in London, which was subsequently taken over by the Australians, and assisted in organising the Y.M.C.A. at Ciro's. To Lady Askwith belongs the credit of having initiated and assisted in organising the first National Kitchens in London. These were started in the East End, where their need was greatest, one of the first kitchens being opened by Her Majesty the Queen. Two of these National Kitchens are still being carried on in that district with marked success.

For her devoted services Lady Askwith was awarded the C.B.E., being one of the first Companions of the new Order.

## LORD ASKWITH (First Baron), GEORGE RANKEN ASKWITH, of St Ives, in the County of Huntingdon, K.C.B., K.C.

For many years prior to the war Lord Askwith's name was very closely associated with labour problems and their solution. In August 1914 he held the office of Chief Industrial Commissioner, his department acting under the authority of the Conciliation Act of 1896, for the purpose of conciliation and arbitration in disputes arising between capital and labour. Many serious disputes were threatened before the autumn of 1914, such as the claim by the engineers for an eight hours' day, and demands by railway, mine, and transport workers, and almost every trade in the country. The representatives of labour generally decided to defer their principal demands for the period of the war, but various disputes had already commenced on the eve of the conflict. The Chief Industrial Commissioner and his staff were busily occupied during August and September in closing these disputes and making suggestions for the avoidance of pending difficulties. As time progressed, the shortage of labour increased the difficulties of manufacture, and it became evident that the war would last longer than had been anticipated. The cost of living increased, and at an early date anger was evinced at profiteering. Uncertainty in the supply of labour was enhanced when employers bribed men to remain or bought them from rival firms, thus introducing a system which caused an increase of wages without regard to any policy or principle. These factors of cost of living, profiteering, and unequal advances caused numerous disputes, which the Chief Industrial Commissioner was continuously called upon to settle. In November 1914 Lord Kitchener requested his aid for the arrangement of the supply of clothing to the Army; and other examinations, where influence was required to solve difficulties with employers and workpeople, rapidly followed. In the result the Government decided that questions of wages must be placed on an organised basis, with greater co-operation between the Army and Navy, and that hindrance to necessary production was caused by the continuance of the prevailing restrictions entailed by the rules of the trade unions. A joint board, known as the Committee of Production, was appointed, the members being Sir George Gibb, a member of the Army Council, and Sir Francis Hopwood from the Admiralty, with the Chief Industrial Commissioner as Chairman. After many consultations with the shipping and engineering trades, they issued four reports which laid the foundation for the Treasury Agreement and the Ministry of Munitions, and on which the Munitions of War Acts were practically based. The work of the Committee on these reports was interrupted by a serious outbreak on the Clyde,

which led to the demand from the Committee that the trade union leaders should insist on a return to work, and a reference of the wage question to arbitration. The members of the Committee were appointed arbitrators in this dispute, and acted by consent of the parties in many other disputes. They were finally appointed to act as the Chief Court of Arbitration under the Munitions of War Act of July 1915, for the trades subject to the provisions of this Act. Coincidently with this work, the Chief Industrial Commissioner was continuously engaged, in all parts of the United Kingdom, in settling disputes of trades, such as dyes, chemicals, cotton, and mines, which were outside the terms of the Act. He was also chosen as umpire by the coal-owners and miners of Scotland under the Coal Mines (Minimum Wage) Act. These different classes of disputes involved the hearing and settlement of many hundreds of cases during 1915 and 1916. The expressed object of the Chief Industrial Commissioner was to establish a policy for settlement of wages in all trades throughout the country, and a consistent method of meeting the cycles of demands which arose with the rapid increases in the cost of living. In 1916 he effected an agreement in South Wales between the coal-owners and miners on the non-union question, which was one of the many causes of difficulty in the supply of Welsh coal; and in 1917 another agreement between the Engineering Employers' Federation and fifty-three trade unions for a periodical revision of wages at intervals of four months. This latter agreement was followed by nearly all the principal trades of the country, and formed the basis upon which changes of wages have been settled, both under the Interim Wages Arbitration Act of 1918–19 and the Industrial Courts Act of 1919. At the end of 1917 the Department was transferred from the Board of Trade to the new Ministry of Labour, and in the spring of 1918 the Committee of Production was enlarged by the addition of employers and representatives of employees. Owing to the large number of cases which had to be dealt with, the Chief Industrial Commissioner ceased to act as arbitrator, and concentrated upon the work of conciliation, which had become more and more necessary, either for the settlement of disputes between employers and labour, or the preparation of cases for the Courts of Arbitration. After the Armistice, when the Labour Departments of the Ministry of Munitions were transferred to the Ministry of Labour, Sir George Askwith retired from the Civil Service, receiving a peerage in recognition of his services.

In addition to the strenuous and complicated tasks referred to above, Lord Askwith acted as Chairman of Council of the "Institut Français" (the French University in London), and established classes for the education of French and Belgians in this country, and *lycées* for the education

of 600 to 800 Belgian and French children. These services were recognised by the appointment of Lord Askwith as a Commander of the Légion d'Honneur by the French Parliament, and Commander of the Crown of Belgium by King Albert.

## LIEUT.-GENERAL SIR F. J. AYLMER, V.C., K.C.B.

At the outbreak of war Major-General F. J. Aylmer was Adjutant-General in India. The immediate calls on that country were very heavy, and the losses on service exceeded all previous official estimates; but, though the organisation of the Army was in no way calculated for a war of this nature, India was able to meet these demands and to maintain the personnel of her quota of combatant forces in the field, as well as the troops necessary for frontier and internal defence. For his services as Adjutant-General, Major-General Aylmer was promoted to the rank of Lieutenant-General, and received the K.C.B. on the 1st of January 1916.

At the end of November 1915 he was ordered to Mesopotamia. The position of affairs at the beginning of December was very critical. After the battle of Ctesiphon, Major-General Townshend had been forced by greatly superior numbers to fall back on Kut-al-Amara, which was at once invested by the Turkish army. His cavalry brigade had been sent back to Ali-al-Gharbi. Very few of the original troops remained in the rest of Mesopotamia, every man who could possibly be spared having been taken for the advance on Baghdad. Some reinforcements were being sent from India, and two Indian divisions, which had suffered very heavily in France, were being hurried from that country to Mesopotamia, and hastily reconstituted in Egypt. On the 9th December Major-General Aylmer was appointed to the command of the relieving force which was to be formed. Judging from the reports received from Kut during December, it was considered imperative that an attempt to relieve that place by the middle of January should be made, though it is seldom that a force has been so poorly organised and equipped to undertake such an arduous task, medical units, land and river transport, modern artillery, bridging equipment, aeroplanes, and many other things being far below the essential requirements of a modern army.

On the 4th January the Cavalry Brigade and the 7th Division, under Major-General Sir G. Younghusband, started from Ali-al-Gharbi, our most advanced post, for Shaikh-Saad, some thirty-two miles distant, with the object of drawing away from Kut as many of the Turkish army as possible, so as to relieve the pressure

there, and of being nearer that place in case the position of the garrison became desperate. The remainder of the force, which then amounted to nearly two brigades and some artillery units, followed under General Aylmer on the 6th. On the afternoon of the 6th General Younghusband became engaged with considerable Turkish forces on both banks of the Tigris, a few miles below Shaikh-Saad.

General Aylmer reached the field of battle early on the morning of the 7th, and after the arrival of the two brigades and additional artillery the attack was resumed. During the course of the day the Turkish entrenchments on the right bank were carried by Major-General Kemball, and 600 prisoners and two guns were taken, our troops having displayed great valour in the assault. On the left bank the attempt to outflank the Turkish entrenchments was unsuccessful, though the troops attacked with marked gallantry. Little progress was made on the 8th, but during the night 8th–9th the Turks retired from their entrenchments to a new position behind the Wadi stream, which joins the left bank of the Tigris, some twelve miles back. At the battle of Shaikh-Saad the strength on either side was approximately equal, and our total losses were 4500, those of the Turks being about the same.

Owing to these heavy losses (amounting to 30 per cent. of the infantry), the grave insufficiency of medical arrangements, and the bad weather, it was impossible to follow up the Turks beyond Shaikh-Saad for several days, during which practically the whole force was concentrated on the left bank.

On the 13th, after a night-march, the 7th Division and the Cavalry Brigade forded the Wadi stream above the Turkish position, and attacked the enemy in flank, attempting to cut their line of retreat on Kut, while the 28th Brigade operated against the front, with the 9th Brigade in reserve. Though considerable progress was made by the 7th Division, it did not get far enough to prevent the escape of the Turks during the night of the 13th–14th. Our losses in the Wadi battle amounted to 1500, and were severe in the 28th Brigade, which had made a very determined effort to reach the hostile entrenchments.

The Turks took up a very strong position some four miles farther back, closing the entrance to the narrow defile leading to Kut between the marshes and the river. In spite of our heavy losses and the very bad weather, which rendered movements most difficult and which had destroyed nearly the entire bridging material, the condition of the garrison of Kut appeared to demand a supreme effort. Consequently, on the 21st January an attempt was made to capture the Turkish position; but, though the enemy's trenches were reached in several places and the troops displayed the greatest gallantry, the attack eventually failed, with a loss of 2500 men.

On the 24th and 25th information was received from Kut that native food-supplies had been discovered which would allow of rations for eighty-four days more. Though this gave the Tigris Corps some time for reconstitution and the arrival of reinforcements, the period within which an advance offered much chance of success was limited by the rise of the Tigris, and, according to all records, it might be expected that, on any day after the 15th March, the overflow of the Tigris would stop any advance away from the river. With the forces available it was impossible to break through the several lines of entrenchment prepared by the Turks within the Sawaicha defile on the left bank, and it was determined to make an attempt to relieve Kut by an advance on the right bank. The extreme right of the Ess-Sinn position, where it was thrown back to the Shatt-al-Hai, was therefore chosen as the portion to be assaulted, and in this the most important point was the Dujaila redoubt.

On the 8th March, after a long night-march, the position was attacked; but, though the attempt to capture it was renewed several times during the day, and the troops engaged made the most valiant efforts, it was not successful. General Aylmer decided that the renewal of the attack on the 9th presented no prospect of success and would seriously imperil the forces under his immediate command, and he therefore ordered a retirement on to the positions previously occupied, and this was carried out during the day. In these operations our losses amounted to 3500.

On the 11th March General Aylmer, by orders from England, handed over command of the corps to Major-General Sir G. Gorringe, K.C.B. Lieut.-General Sir P. Lake, K.C.B., K.C.M.G., took over command of the forces in Mesopotamia on the 19th of January, and in his dispatch, dated 12th August 1916, refers to the services of General Aylmer in the following terms :—

"I desire to place on record my appreciation of the services rendered by Lieut.-General Sir F. Aylmer. Faced by great climatic and other difficulties, and unable, for reasons already referred to, to allow himself the time for re-organisation and preparation which, under other circumstances, he would have deemed essential, he applied himself to a difficult task with an energy, ability, and determination which enabled him twice to defeat a brave enemy at least equal to himself in numbers, and which would in all probability have carried him to success at the Umm-al-Hannah position but for weather conditions which proved an almost insurmountable obstacle."

Lieut.-General Aylmer was given the command of the 5th Mhow Division in India, which he held until the end of March 1917.

FRANK BAILEY, M.Inst.C.E., City of London Electric Lighting Co., Ltd., Bankside, London, S.E. 1. (*Chairman of the Metropolitan Munitions Committee and Chairman of the Directing Board of the Perivale No. 3 Filling Factory.*)

WHEN the nation became alarmed at the shortage of munitions and urged to strenuous action by the appeal of Mr Lloyd George in May 1915, it was suggested that the Public Utility Works could assist by concentrating their resources. This suggestion took practical form on the proposal of Mr W. A. Harper to convene a meeting with the assistance of the President of the Institution of Civil Engineers (then the late Mr B. Hall Blyth), supported by Dr Unwin, then President of the Institution of Mechanical Engineers. Mr Frank Bailey was appointed Chairman of an Inquiry Committee, and collected information regarding the available resources of plant, labour, and buildings within the Metropolitan area. The Committee discussed the available possibilities with Mr Lloyd George on the 15th June 1915, and on that date received an authority from the Army Council to proceed with full powers. Mr Bailey was appointed as one of the Trustees by authorisation of the Army Council, and gave constant attention to the work for about four years, which involved payments amounting approximately to £25,000,000.

The success of the Committee was largely due to the technical and commercial skill of the staff employed. Mr Cecil Partridge (afterwards Sir Cecil Partridge, K.B.E.) was appointed General Manager in July 1915, and, although an extensive staff was employed, the total expenses of administration did not exceed 1 per cent. of the value of the work done. Most of the Munitions Committees in the country were formed for co-operative manufacture, but in the case of the Metropolitan Munitions Committee no member of the Management Board had any monetary interest in any of the contracts placed; and not only was their time given voluntarily to this work of national importance, but they also defrayed their own expenses.

It was difficult to secure a satisfactory output from a number of comparatively small workshops equipped only with plant of general utility, and it was found advisable to encourage the concentration of labour in well-equipped workshops, with the provision of the necessary skilled supervision and the adoption of strict methods of inspection. The demand for automatic machine tools of the special kind required for this work was greater than the supply, and much ingenuity was shown by many firms in adapting their plant to these special

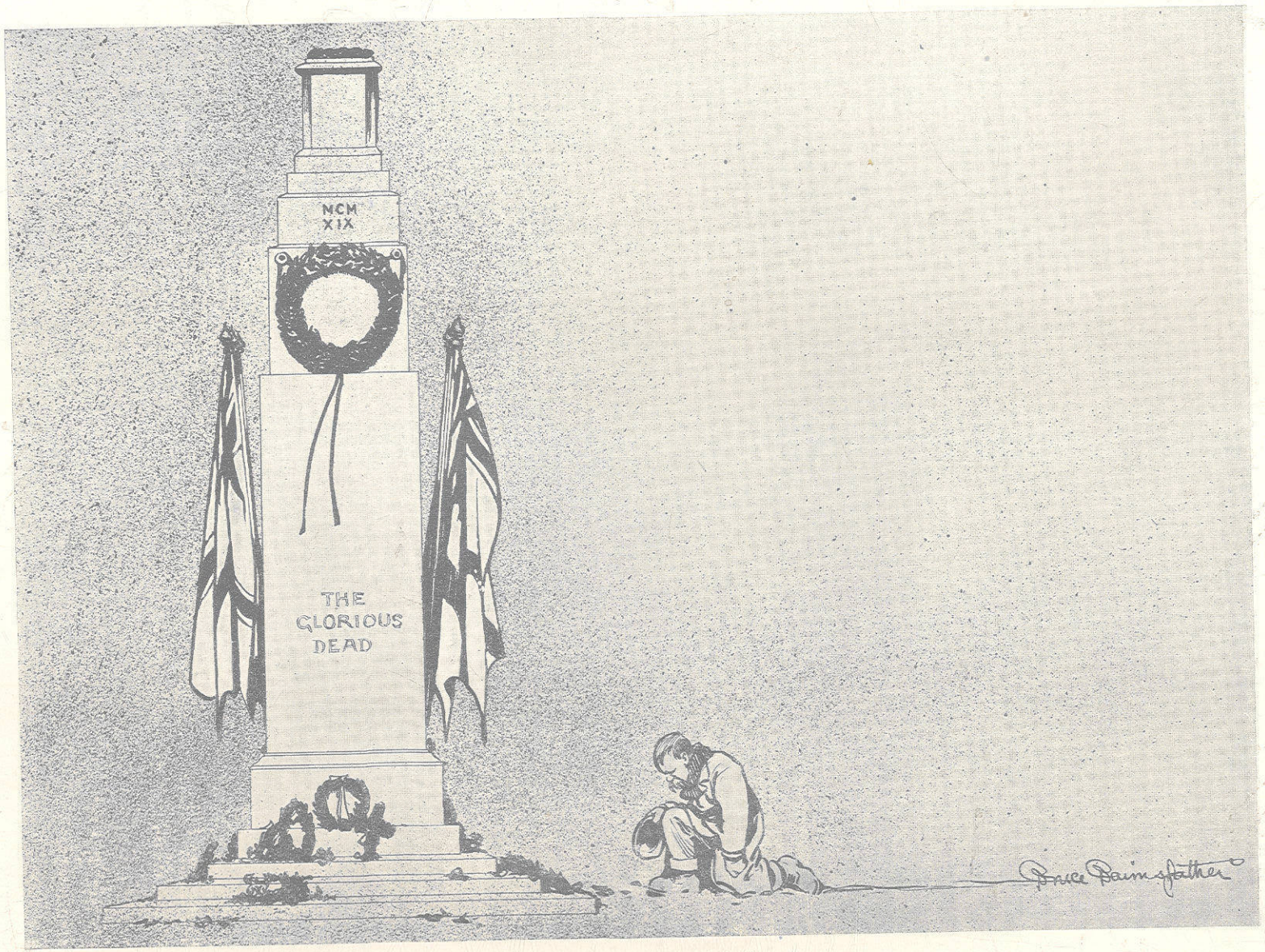
requirements. The skilled mechanics in London more than justified their high reputation, and when the younger men were enrolled in the Army much semi-skilled work was ably carried out by women operators under the supervision of the mechanics. The cost of the munitions produced was considerably below the standard price adopted by the Ministry of Munitions, the greatest loyalty being shown by the London workshops in accepting contracts at the lowest price and overcoming all difficulties arising from shortage of material, uncertain deliveries, defects in material, and difficulties of manufacture.

Mr Frank Bailey succeeded Mr Hall Blyth as Chairman of the Perivale Directing Board soon after the construction of the building was commenced. Every effort was made to erect the factory in the shortest time, and within four months of taking possession of the ground the first portion of the factory was available for useful work. The factory consisted of four bays, each of fifteen working rooms, together with the necessary safety buildings for unloading, storing, and drying explosives. The Directing Board were fortunate in obtaining the services of Mr W. B. Allcock, who possessed a complete knowledge of factory organisation, and successfully managed the whole factory, which ultimately employed about 8000 women workers. In addition to the filling factory, railway receiving sheds and inspection accommodation were provided for about 2000 operatives, the whole of this portion of the site being under the supervision of the Inspection Department, where millions of fuses were examined prior to filling. During the war no case of fire or explosion occurred in the factory, and in spite of the severity of the winters the requisite temperature was maintained, often with considerable trouble—a matter of some importance when dealing with explosives.

Four years of strenuous work at considerable sacrifice were entailed by this contribution to the national effort, and the success of the work undertaken was some reward for these voluntary efforts.

## CAPTAIN BRUCE BAIRNSFATHER, Bishopton, Stratford-on-Avon

Captain Bruce Bairnsfather is a Captain in the Royal Warwicks. He was born at Murres, in India, July 1887—the son of Major T. H. Bairnsfather—and was educated at the United Service College, Westward Ho!, and Trinity College, Stratford-on-Avon. His early childhood in India was one of singular adventure and travel, which, throughout his career, has influenced his outlook on men and




THE LAST TRIBUTE.

matters. He served in the Warwickshire Militia prior to the war, but the routine of Army life under peace conditions did not appeal to him, and he went in for civil engineering. At the outbreak of hostilities, however, he rejoined his old regiment, crossed to France in November 1914, and served there with the First Battalion Royal Warwicks. He was made a captain in July 1915, and served in France till December 1916, when he was attached to the War Office for work abroad. His first drawing, "The Better 'Ole," appeared in *The Bystander*, and attracted great attention. His success with the soldier, for whom he showed a unique sympathy, was instantaneous, and throughout his useful work for the Allies he has retained the comradeship of the fighting man, and he inspired them with cheerfulness when the outlook appeared hopeless.

In propaganda work, and special duties for the War Office, he always made humour and sympathy his mediums. His *Bystander* drawings of phases of the war have appeared in five volumes, under the title of *Fragments from France*. His play, *The Better 'Ole*, carried on the same philosophy of good faith and humorous optimism in the darkest hour. His two books, *Bullets and Billets* and *From Mud to Mufti*, are in the same vein; and he also illustrated several war books, including *C'est pour la France* and *Back to Blighty*. In his creation of "Old Bill" he has given posterity an epitome of the human spirit of the British soldier, for which that character stands, aptly described as "the best-loved soldier of the British Army," and, in his touching drawing on the opposite page, this character typifies the British Army honouring those who have fallen in the great cause.

The success of *Fragments from France*, which could be no better described than as a "joy-ride of the trenches," led to his becoming founder and editor of a weekly paper entitled *Fragments*.

## LORD BALFOUR OF BURLEIGH, K.T., G.C.M.G., G.C.V.O.,
47 Cadogan Square, S.W. 1

THE vital importance of maintaining adequate supplies of raw material for war purposes and the apportioning of these, as well as the restriction of export of the same, led to the formation of representative committees to investigate the many intricate problems involved, and to advise the Government as to the best means to be adopted to attain the object in view. At the same time, these committees were responsible for protecting the interests of the various trades and industries concerned.

Not the least important of the raw materials which it was necessary to conserve for war purposes were rubber and tin, and to the Rubber and Tin Exports Committee, which was appointed in January 1915, Lord Balfour of Burleigh was appointed Chairman, and served in that capacity throughout the whole period of the Committee's existence. The Committee sat daily for over four years, and it is due to the highly efficient manner in which the task entrusted to them was handled that, throughout the period of the war, no serious shortage of either of these vitally necessary commodities occurred. In regard to rubber, the supplies available from the Far East which were in the hands of the British were equal to all demands. The difficulties which the Committee had to face were the prevention of supplies reaching the hands of speculators, and the safeguarding of leakages by devious means to enemy countries. In this connection the Committee received valuable co-operation from the Rubber Trade Association. Tin, however, presented a far more difficult problem. There was a world's shortage of that commodity, and it taxed the ingenuity of the Committee to the utmost to make the restricted quantity available fulfil all requirements. Some idea of the scope and magnitude of the Committee's work may be gathered from the following figures, which are taken from the final published report. In 1915, 130,000 tons of raw rubber were licensed from the United Kingdom and from British possessions overseas; in 1916, 125,000 tons; in 1917, 200,000 tons; and in 1918, 220,000 tons. The Committee licensed 79,000 tons of tin in 1915, 76,000 tons in 1916, 81,500 tons in 1917, and nearly 79,000 tons in 1918. In addition, large quantities of manufactured rubber goods were also licensed. The numbers of applications for licenses dealt with by the Committee during the four years of its existence were as follows:—55,717 in 1915, 83,517 in 1916, 61,053 in 1917, and 38,846 in 1918. The Committee was in constant communication with the Board of Trade, the Foreign Office, and the Colonial Office, and, under the chairmanship of Lord Balfour of Burleigh, succeeded in carrying out the important and arduous work entrusted to it in such a manner as to earn, not only the high appreciation of His Majesty's Government, but the thanks and goodwill of all branches of the industries concerned, whose interests were naturally affected by the restrictions it was found necessary to impose.

THE RIGHT HON. A. J. BALFOUR, M.P.,
4 Carlton Gardens, London, S.W. 1

THE services rendered by Mr Balfour during the war were of a high order, and called forth the finest efforts of his unrivalled abilities. Unfortunately, it is not possible to do more than generalise on the more important services he rendered, since they are intimately connected with the intricate and complex problems of international diplomacy, the secrets of which it is possible that this generation will never know. Certain it is, however, that there is no statesman of our time who had a wider or more subtle knowledge of foreign politics, or a keener grasp of the essential factors in the complex situation which presented itself on the outbreak of hostilities, than was possessed by Mr Balfour. His acceptance in December 1916, on the reconstruction of the Coalition Government under Mr Lloyd George, of the office of Secretary of State for Foreign Affairs was received with a sense of deep gratitude not only by his own countrymen of all shades of political opinion, but also by our Allies and by those neutral countries whose destinies were at stake.

At the outbreak of war Mr Balfour was a member of the Committee of Imperial Defence, which he had originally created, and as such attended the many important meetings held by that Committee during 1914 and 1915.

His chief work in the autumn of the first year of the war was in connection with the steps to be taken by the civilian population in the event of invasion. Many meetings were held and certain definite plans were adopted for meeting such an emergency. Mr Balfour personally interviewed the Lords Lieutenant of the counties affected, to whom was entrusted the carrying out of the scheme laid down, if, and when, the necessity arose.

In May 1915 Mr Balfour was appointed First Lord of the Admiralty in Mr Asquith's Coalition Government, and held that important office until December 1916, when, as has already been stated, he accepted the office of Secretary of State for Foreign Affairs. In the early part of 1915 the War Cabinet was constituted, and from then until the end of the war Mr Balfour was present at many meetings of that Cabinet. Though never an actual member, he was summoned to attend, first, by reason of his having been a member of the Committee of Imperial Defence; secondly, by reason of his having held the post of First Lord of the Admiralty; and thirdly, in his capacity as Secretary of State for Foreign Affairs. It was only natural that his wide knowledge and experience should be utilised to the full, and

he was asked to serve on numerous committees of the Cabinet appointed to consider special questions.

On 11th April 1917 Mr Balfour left London as the head of the British Mission to America, returning to London on 9th June with the object of that Mission attained.

In the early months of 1919 Mr Balfour proceeded to Paris as a member of the Peace Conference, and it is interesting to note that as far back as 1878 he served under his uncle, the late Marquis of Salisbury, at the historic Congress of Berlin.

The services Mr Balfour rendered as a member of the Peace Conference can only be adequately appreciated when the true history of that Congress is disclosed to the world. Only those who actually participated in those momentous discussions, when decisions of world-wide importance were taken and a new world was being modelled, can realise the value of Mr Balfour's statesmanship and diplomacy. But this much is common knowledge: he brought to the discussion of the most complex and difficult problems a longer knowledge of foreign affairs than was possessed by any other Foreign Secretary, and thereby maintained the prestige of his country on a high level, and won for it the admiration and respect of all nations.

LADY BARKER, Lowndes House, Lowndes Place, London, S.W. 1.

THE day following the declaration of war, Lady Barker took up work for the British Red Cross, and, in addition, offered hospitality to the British refugees from Turkey at her own house. She was a member of the Russian Red Cross, and had the distinction of being decorated by the late Czarina of Russia; and as a member of the Italian Red Cross she was instrumental in collecting a large sum of money for the fund. Throughout Belgravia great activity prevailed in providing necessaries for the men at the Front, and to this work Lady Barker also devoted a very considerable amount of time and energy. She also made a custom of inviting fifty wounded soldiers in hospital to tea at Lowndes House once a week, at which she provided an entertainment. At the same time a dance was arranged every Saturday night, which was restricted to men in khaki.

At a later date Lady Barker joined the Volunteer Motor Corps, and in this her special service was to meet the trains bringing in the wounded, and convey them to the hospitals to which they were allocated. In the year 1915, in con-

junction with others, she organised " Kitchener House " for the reception of wounded soldiers and sailors, and in November 1918 she founded the " Kitchener Educational Club " for wounded officers. It was at the latter that the Kitchener House Jazz Band, composed of disabled officers, which became quite famous, was initiated.

Apart from the activities already referred to, Lady Barker actively engaged in hospital work at Clersington and in London.

## HIS HIGHNESS THE MAHARAJA GAEKWAR OF BARODA, G.C.S.I., G.C.I.E.

At the outbreak of war the Maharaja Gaekwar immediately placed his troops and all the resources of the State of Baroda at the disposal of the Government of India, which patriotic offer was accepted by His Excellency the Viceroy in the event of the armed strength of India being utilised in the war. When that necessity arose, the Maharaja, in fulfilment of this generous offer, allowed 157 men from the State Regular Forces to join the British Army, while a further 200 troopers and six officers were placed at the disposal of the Indian Government to train remounts at the Remount Depot at Muttra. In addition to these trained troops, over 1400 recruits were obtained from the State for the British Army, and four regular European officers were granted special leave and financial facilities provided for them to join the British Expeditionary Force. The State Chief Medical Officer was also lent to the Indian Medical Service, and another medical officer was given special leave to join, temporarily, the same branch of the service.

Five lakhs of rupees were provided by the Maharaja for the provision and equipment of aeroplanes, and another five lakhs were contributed towards the War Gift Fund. Fifteen lakhs were given for the purchase of Ford vans, and a total amount of Rs. 5,16,000 was contributed towards the general expenses of the war, by monthly payments of Rs. 12,000. The State and its subjects also purchased altogether one crore and four lakhs of War Loan Bonds. The Maharaja's Palace at Bombay was placed at the disposal of the military authorities as a hospital for officers, and a large number of tents were given for hospital use with the Expeditionary Force in France. Large quantities of material—engines, rolling stock, and tugs—were liberated from the State services for use in Mesopotamia when the need there was most urgent. It is impossible to give in detail the many and various contributions, including large numbers of valuable horses,

which were made by the Maharaja Gaekwar during the whole period of the war, but it may be stated that the whole of the vast resources of the State of Baroda were unreservedly placed at the disposal of the Government of India and the military authorities, and that they were largely drawn upon as and when the need arose.

## SIR WILLIAM BEARDMORE, Bart. (LORD INVERNAIRN OF STRATHNAIRN), Parkhead Steel Works, Glasgow

The eminent position which Sir William Beardmore had attained in the iron, steel, and engineering industries of the country, and the high position to which he had brought his firm by constantly keeping it in the forefront of modern engineering practice, provided the authorities with an establishment which could be relied upon to assist them in the great manufacturing and engineering problems with which the country was faced at the outbreak of war. A continual drain upon industrial labour created a position of great difficulty in regard to maintaining output, and Sir William, realising the seriousness of the problem, introduced female labour into his engineering shops. His venture proved to be thoroughly justified, and his example was followed by employers of labour throughout the entire country.

In addition to co-operating with the Government through his own establishment, he served on various committees for the advancement of science as applicable to the exigencies created by the war. In spite, however, of the great demands made upon his time and energy, he was able to find opportunity to devote his attention to the human aspect of labour. One of the directions in which he carried out his ideas was in the formation of the Boys' Welfare Association, now known as the Industrial Welfare Society, of which he is Chairman. In the founding of this Association he took a very prominent part. Founded in 1918 to encourage study, among employers and managers of labour, of questions affecting the welfare of male persons engaged in industry, it now has on its roll over 600 firms throughout the country, representative of a great variety of trades. The Society has received the active personal support of H.R.H. the Duke of York, who is its President, and the scheme is regarded by a very large number of employers and able representatives of work-people as a most valuable contribution to the solution of many of the present industrial problems. The work of this Society is being carried out through an army of supervisors established at the various works.

## LIEUT.-COLONEL SIR JOHN GEORGE BEHARRELL, D.S.O.

Ministry of Transport, Gwydyr House, Whitehall, London, S.W. 1

At the outbreak of war he was Assistant Goods Manager of the North-Eastern Railway.

In December 1915 he joined Sir Eric Geddes at the Ministry of Munitions, where he was responsible for the provision of textile and other materials for empty cartridges, and later for the statistics of requirement and output of filled big-gun ammunition. In August 1916 he accompanied Sir Eric Geddes to France in connection with the transport problem, and became Assistant Director-General of Transportation, with the rank of Lieutenant-Colonel. He was also responsible for the whole of the statistics of this undertaking, and in 1917 was appointed Assistant Inspector-General of Transportation in charge of statistics for all theatres of war. In May 1917, Sir Eric Geddes having been appointed Controller of the Navy, Colonel Beharrell became Director of Statistics, and was responsible for the official statistics of personnel and matériel of the Navy, and also for all statistics in connection with the submarine campaign.

After the Armistice, Colonel Beharrell was associated with Sir Eric Geddes in the work of expediting demobilisation by the co-ordination of the various departments concerned, and was one of the small staff who assisted the Minister-designate in the passage of the Ministry of Transport Bill through Parliament.

When the Ministry of Transport was formed in August 1919, Sir George Beharrell was appointed Director-General of Finance and Statistics.

He was mentioned in despatches and awarded the D.S.O. In June 1919 he received the honour of knighthood in recognition of his services during the war. He is also an Officer of the Order of St Maurice and St Lazarus of Italy, and of the Order of the Crown of Belgium.

## LIEUTENANT-GENERAL SIR EDWARD CECIL BETHUNE, K.C.B., C.V.O.

General Bethune had a long period of valuable military service to his credit when war broke out.[1] He fought in the Afghanistan campaign of 1878–1880 with the Gordon Highlanders, for which he received a medal with one clasp.

[1] Originally gazetted as a Lieutenant in the Royal Artillery, he joined the 92nd Gordon Highlanders in 1875.

He also took part in the South African War of 1881, and again in the Boer War of 1899–1902. He received the King's Medal with two clasps, and the War Medal with six clasps, and was four times mentioned in despatches. In 1901 he was promoted Brevet Colonel, and raised and commanded Bethune's Mounted Infantry. In 1901 he commanded a cavalry brigade, and subsequently commanded a mixed mounted force to the end of that war. When the Great European War broke out he occupied the position of Director-General, Territorial Forces, which position he retained until 1917. In that year he accepted the position as Chief Organiser to the National Alliance of Employers and Employed, and was engaged in the work connected with this until the Armistice. This position he still holds.

## SIR WILLIAM BEVERIDGE, 27 Bedford Gardens, W. 8

At the outbreak of the war Sir William Beveridge was acting as Assistant Secretary to the Board of Trade, in charge of the administration of Employment Exchanges and Unemployment Insurance. These Employment Exchanges played a very important part in the mobilisation of labour during the whole of the war period, and in the early days of the autumn of 1914 the arrangements for extracting from and for preventing entrance into the Army of skilled workmen who were essential to the production of munitions, could hardly have been carried out without their machinery.

When the Ministry of Munitions was formed in June 1915, Sir William Beveridge was appointed the first Assistant General Secretary, and was responsible for the administration of the Labour Supply and Regulation Department. He was assisted in his new sphere by many of his former staff. The whole organisation of the Employment Exchanges was, indeed, called into requisition both at headquarters and in the provinces to carry out the administration of labour supply and regulation required by the Ministry of Munitions under the Munitions of War Act, 1915.

It was of incalculable importance to the Government to have ready at its hand the whole intricate organisation of Employment Exchanges, forming as they did a network all over the country of units grouped together into divisions under divisional officers who were in constant communication with headquarters at Whitehall. During the whole war period the output of munitions depended on the ready mobility of labour, the correct allocation to all the factories throughout the kingdom of their share of skilled labour, and the proportionate dilution of

skilled labour with unskilled labour. It is hardly too much to say that without the Employment Exchange organisation this complicated interference with the ordinary channels of labour supply could not have been carried out.

In September 1916 Sir William Beveridge, in his capacity of Assistant Secretary at the Board of Trade, was placed in charge of the administration which arose out of the recommendations made by the First Report of the Inter-Departmental Committee on Food Prices, set up by the Board of Trade. He was thus actually in charge of food administration for nearly three months before a Food

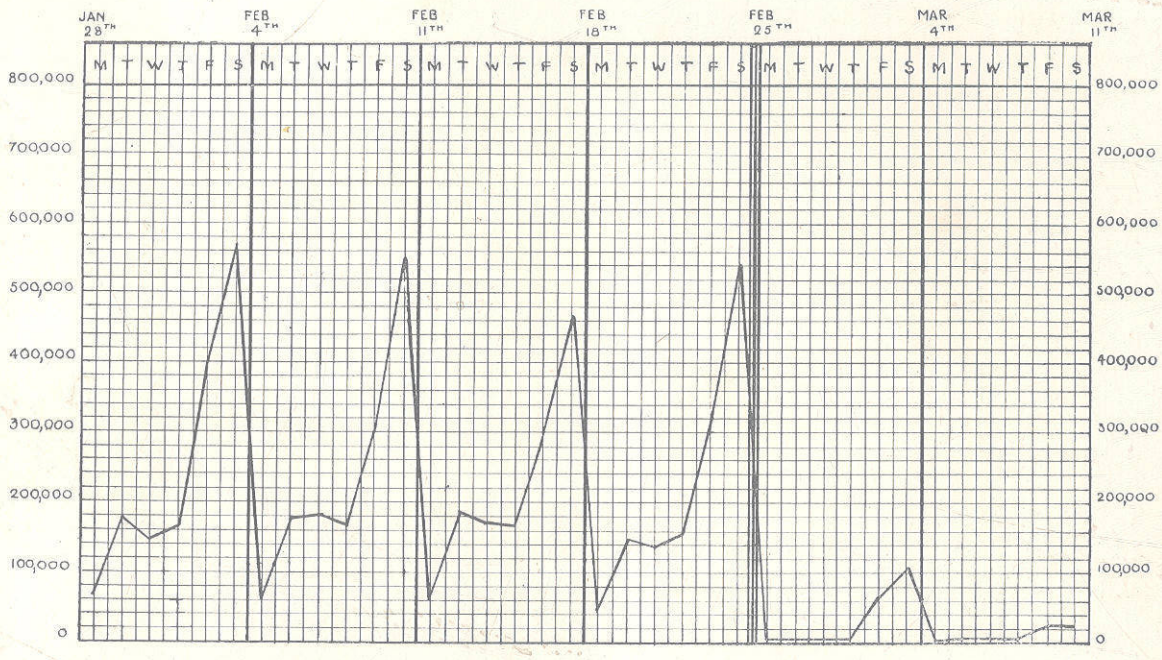



Diagram showing the gradual decline of food queues.

Controller was appointed. Regulations were made by the House of Commons during this time giving the powers under the Defence of the Realm Act to the President of the Board of Trade, which were subsequently transferred to the Food Controller, and various Orders dealing with the price of milk and the milling of flour were made during this period.

The first Food Controller, Lord Devonport, was appointed in December 1916, and Sir William Beveridge became Second Secretary to the new Department, and continued to hold this position under successive Food Controllers until January 1919, when he became Permanent Secretary to the Ministry of Food, under Mr Roberts. Perhaps the most notable part of the whole of the administration of the Ministry of Food was the scheme for compulsory rationing, for which Sir William Beveridge was directly responsible. The chart on this page shows

with what rapidity queues disappeared on the introduction of compulsory rationing into London and the Home Counties early in 1918.

Another very striking success was the decentralisation of administration carried out by the Ministry of Food in setting up Local Food Committees. The general plan followed the lines of the organisation of Employment Exchanges. That is to say, the Committees themselves, which were directly in touch with the general public, were grouped together under one divisional head, who in his turn was closely linked up with the Food Controller's staff at Whitehall. The success of this experiment in government deserves special consideration even in peace time, and may be cited, together with the rationing scheme, as typical of the administrative ability of Sir William Beveridge.

## ALFRED BIGLAND, M.P., Wexford Lodge, Birkenhead

Associating himself actively with recruiting work, on the outbreak of war Mr Bigland discovered that the standard of measurements adopted by the British Army did not allow of men under 5 feet 3 inches joining the colours. He recognised that the urgency of the times demanded that, as far as commercial and industrial circumstances would allow, old methods and standards must be abandoned if they stood in the way of national needs. He therefore wrote personally to Lord Kitchener, making the suggestion that battalions of men between 5 feet and 5 feet 3 inches should be raised. In response to this proposal Lord Kitchener instructed Sir Henry MacKinnon to take the matter up, and after consultation with the latter Mr Alfred Bigland proceeded to raise a battalion on these lines, the War Office giving him full power to recruit from all over the United Kingdom. They laid down, however, an important proviso, to the effect that he must bear the whole responsibility of housing, clothing, feeding, and equipment at the rate fixed by the authorities. Thus came into being the famous " Bantams."

So great was the response to the appeal made, that within three days after the announcement the full strength of the battalion was attained, and men were flocking to Birkenhead from all parts of the country. No less than 2300 men were enrolled in the first week. Other towns throughout the country adopted the same movement, and a grand total of 14,000 " Bantams " were enlisted. Of this number the Birkenhead " Bantams," including the reserves, mustered 4000 men. The magnificent part that these men played in the war is now historic,

the 16th Cheshires claiming to have more men and officers in the Honours List than any other battalion from Lancashire or Cheshire. The photograph reproduced here shows the late Lord Kitchener, with whom is Mr Bigland, reviewing the " Bantams " at Liverpool.

Mr Bigland then directed his energies into another channel, for in January 1916 the Government found themselves faced with a probable shortage of glycerine for the manufacture of cordite, and he was appointed Assistant-Director of the Propellants Branch, Ministry of Munitions. In this capacity he organised

Lord Kitchener reviewing the " Bantams."

the supplies of raw materials for the production of glycerine from all parts of the British Empire. The methods adopted by Mr Bigland were eminently successful, and stand as the first concrete instance of Imperial Preference. The salutary effects of these were visible in the fact that, while the price of glycerine in other countries soared as high as £290 per ton for dynamite glycerine, the price in this country, with ample supplies, was only £87, 10s. per ton.

Mr Bigland was subsequently invited to undertake duties of a wider scope, in the direction of organising the supply of seeds, oils, and fats necessary for the margarine trade. His department was accordingly transferred to the Ministry of Food, under Lord Rhondda. In this connection Mr Bigland was successful in obtaining from all parts of the British Empire such quantities of the requisite raw materials that, while France and all other countries were paying exceedingly

high prices for their fat foods, the people of Great Britain enjoyed supplies at, roughly, half the prices ruling elsewhere. In association with this department also he organised the supply of raw materials required in the manufacture of soap. The policy adopted resulted in exceptionally low prices ruling in England compared with those obtaining in all other European countries. This position Mr Bigland resigned on the death of Lord Rhondda. He also devoted a considerable amount of time to work on Parliamentary Committees relative to business questions concerning contraband and other problems upon which the Government had at that time to take action.

## GENERAL SIR WILLIAM RIDDELL BIRDWOOD, G.C.M.G., K.C.B., K.C.S.I.

When war broke out General Birdwood occupied the position of Secretary to the Government of India in the Army Department, and was a member of the Executive Council. He had been for nine years on Lord Kitchener's staff in that country. In his capacity as Military Secretary he was concerned in the dispatch of Indian troops to the different theatres of war, and continued this work until the capture of Basrah in November 1914. Immediately war was declared Australia offered 20,000 men, which was equivalent to a division, and these troops embarked for Egypt under divisional organisation. It was while these troops were *en route* that General Birdwood was appointed by Lord Kitchener to command the Australian and New Zealand Army Corps. General Birdwood joined this corps in Egypt in December 1914, and from this time up to the evacuation of Gallipoli was in charge of the Australian organisation, and of the training of the corps. He also conducted the preliminary reorganisation at Gallipoli when operations were decided upon against Turkey, and in April 1915 left for Gallipoli as G.O.C., having under his charge the combined forces at Anzac. In May 1915 he joined Major-General Sir W. I. Bridges, G.O.C. of the first Australian Division and the A.I.F. On the death of General Bridges, General Birdwood assumed command of the latter, and continued to hold this position throughout the war. The characteristic of General Birdwood which obtained for him the title of "The Soul of Anzac" was his custom of mixing freely with the men, and of visiting even the most dangerous parts of the line. This is instanced by an incident which occurred at Gallipoli, when, while looking from the parapet of the front line, he received a bullet in the head, which he did not have

extracted till after the evacuation of the peninsula. When the Mediterranean Expeditionary Force was reorganised the Dardanelles Army was formed, and the command given to General Birdwood. This army consisted of three corps at Helles, one at Anzac, and one at Suvla, under Lieut.-General Sir Julian Byng. The headquarters of this army were placed at Imbros, a distance of thirteen miles from the trenches. In spite of this distance, however, General Birdwood as army commander maintained close personal touch with his troops by spending a portion of every day on the peninsula. When the evacuation was decided upon, the responsibility of the arrangement fell upon him. This operation was carried out in two stages, the first from Anzac and Suvla on the 19th November, and from Helles on the 12th December. During the final night of the evacuation General Birdwood established his headquarters on a small cruiser, and was enabled to keep in touch with the operations by flying over the lines, the aeroplane being piloted by the well-known naval aviator, Commander Samson. For this great military achievement, by which no less than thirty divisions were withdrawn with few casualties from the peninsula, and during which not a single 75-mm. gun was lost, General Joffre conferred on him by telegram the Croix de Guerre and created him President of the Legion of Honour.

The Australian and New Zealand troops returned to Egypt in January 1916, and from these, together with reinforcements which had arrived, General Birdwood was able to form two divisions, while New Zealand also augmented their forces to the strength of a division, making five divisions in all. During the period of reorganisation the troops were employed on the defence of the Suez Canal and in training. On the 1st April of that year General Birdwood transferred the 1st Australian and New Zealand Army Corps to France, taking over a month later a portion of the line close to Armentières. The 2nd Corps, under General Godley, followed about a month later. These troops were engaged in action at Pozières and on the Somme, the General personally visiting their lines for six or seven hours at a stretch. Later on, the Australians were amalgamated in one corps of five divisions, known as the Australian Corps, under General Birdwood ; while the New Zealand Division, together with two English divisions, were formed into the 22nd Corps, under General Godley. General Birdwood relinquished the command of the Australian Corps on being appointed to the reconstituted 5th Army, retaining at the same time his administrative appointment of G.O.C., A.I.F. He then took over the sector of the line known as the Lys Salient, where the Germans were making preparations for a big offensive, which, however, did not eventuate, owing to the continual repulses they had received in the south. In the general advance the 5th Army moved up from

La Bassée Hill, Roubaix, Tourcoing. This advance relieved Lille, into which General Birdwood made his official entry, being created Citizen of Lille by the relieved town. In January 1919 he relinquished the command of the army to devote the whole of his time as G.O.C., A.I.F., with headquarters in London.

LORD BIRKENHEAD (1st BARON), FREDERICK EDWIN SMITH (now Lord Chancellor of Great Britain and Ireland), 4 Elm Court, Temple, E.C. 4

Prior to the war he was senior subaltern in the Oxfordshire Yeomanry, which he joined in 1907. As Sir F. E. Smith, he attained a foremost position at the English Bar, and had a very extensive practice. When war broke out, Sir F. E. Smith relinquished the whole of his private practice and, at the request of Mr Asquith, accepted the position as Director of Press Bureau in August 1914. Wishing to see active service in France, he handed this work over to Lord Buckmaster in September of that year and joined the staff of the Indian Corps in France, with the rank of Major, G.S.O. 2, holding this position until the formation of the Coalition Government in May 1915. The capacity he acted in was that of an eye-witness of Indian army work, which frequently led him into dangerous spots in the front line. When the Coalition Government came into power, Sir F. E. Smith became Solicitor-General (25th May 1915), and in November of the same year was appointed Attorney-General, which position he held until January 1919. He was then offered the high honour of the Woolsack and was created a Baron. As Attorney-General he was the chief adviser to the Crown, advising the Government in all legal matters which arose during the period he held this office. In order to enable him to deal with the numerous courts-martial which were held, he was created a Lieut.-Colonel on the General Staff, and these duties he conspicuously discharged until his elevation to the Lord Chancellorship. In December 1917 Sir F. E. Smith left for America, for the purpose, primarily, of entering into discussions with Washington on questions affecting international law. Combined with this, he organised and carried out a lightning oratorical campaign in many of the principal American cities, presenting the case of Great Britain's attitude and purposes in the war. He returned from America in February 1918, and in September of the same year visited Spain. The object of this visit was to arrive at a decision with the Spanish Government on the internment of the German vessels then lying in Spanish ports. Lord Birkenhead also served on the Empire

Battalion Enquiry, prosecuted in the plot to murder Mr Lloyd George, and also arraigned Sir Roger Casement for high treason. In addition to this strenuous record, he published a legal treatise on the Destruction of Merchant Ships under International Law, and a volume entitled *My American Visit*. He received the Mons Star, 1914, and was mentioned in despatches during his work at the Front.

### W. FRED BONSER, M.B.E., Central Markets, Smithfield, London, E.C. 1

When the Tribunal system was introduced for the purpose of assisting the War Office in its recruiting campaign, Mr Bonser accepted the position of Chairman of the Smithfield Advisory Committee, which was formed under the City of London Tribunal. This Committee was initiated for dealing with the employees engaged at Smithfield and the meat trade of London generally. In 1918 it was found necessary to institute the control of meat, and a Control Board was formed at Smithfield. The members were elected by a poll of Smithfield tenants, and Mr Bonser became Chairman. The Board acted under the Ministry of Food in controlling the meat supplies of London, as well as the distribution of these throughout the Metropolis. In addition to these services, he was appointed a member of the City Food Control Committee and of the City Profiteering Committee. An Association of the tenants of Smithfield was also formed, and of the council of this Mr Bonser was a member, as well as chairman of the finance committee, while he was also connected with various charities conducted for the benefit of the trade. His war activities were furthermore associated with the beneficent work of establishing a hospital for limbless men, Charterhouse Hotel, adjacent to many of the instrument-makers, being commandeered in 1918 for that purpose. This hospital, of which Mr Bonser was Chairman, was taken over by the tenants of Smithfield, a committee being formed to collect money for the purpose of pleasure and recreation for the 220 men it contained. A portion of this money was spent in setting up a workshop, for which benches were provided and a capable instructor engaged, so that the patients were not only able to obtain some form of recreation, but were also taught to use their artificial arms and hands successfully. This workshop was honoured by an official visit from the Lord Mayor and Sheriffs, and by their Majesties the King and Queen.

Mr Bonser also occupied the position of Chairman of a Committee formed for

the purpose of establishing some form of memorial in remembrance of those who left the Market and laid down their lives for their country. This Committee raised considerably over £4000—the memorial taking the form of the endowment of three beds at St Bartholomew's Hospital, and the erection of a suitable tablet recording the names of those who had fallen in the war.

Smithfield also rendered considerable assistance to the various funds that were started in connection with housing and feeding many refugees who came into this country, and Mr Bonser was one of the two representatives put forward by the Market to serve on the Committee of the National Food Fund.

## THE LATE GENERAL LOUIS BOTHA

THE death of Louis Botha leaves a serious blank in the long list of high-minded and long-visioned men who have made British Colonial history. He was admittedly the strong man of South Africa, and from the time he became the first Premier of United South Africa he strove fearlessly, often in the face of active opposition from his fellow-countrymen, for what he believed to be the good of the Union and the British Empire as a whole. As an antagonist in the days of the South African War he proved himself a military genius, and that same genius as a leader was displayed again in the Great European War on behalf of his former opponents. On 4th August 1914 he offered to undertake the defence of South Africa, so as to release the Imperial Forces for service elsewhere, and his offer was not only gladly accepted, but, within three days, the South African Government was asked by the Colonial Secretary to undertake the conquest and seizure of German South-West Africa. On 10th August General Botha's Government undertook the task, but before operations against the enemy could be begun the rebellion of Beyers and De Wet broke out and had to be suppressed. It has been said of General Botha that in the suppression of that rebellion of his fellow-countrymen he "slashed at his own heart in order to heal the wounds of his country." Whether that is true or not only he himself could say, but certain it is that, however hard the task was, his loyalty to the Empire never wavered, and, having completed it, he led Boer and Briton against the common enemy in German South-West Africa, and, after a brilliant campaign, gained a crushing victory. In addition to these activities in the field, General Botha brought the whole weight of his statesmanship and personality to bear on the side of the Allies, the value of which both to the Union and to the British

cause only history can gauge. It is safe to say, however, that as a result of his guidance South Africa has emerged from the struggle with its status raised and its destiny assured. General Botha represented his country at the Peace Conference, and returned to this country with the Prime Minister and British delegates for a short visit before returning to South Africa on 27th July 1919. In less than a month from the day he sailed this great South African had passed away.

REV. BASIL GRAHAM BOURCHIER, M.A., Vicar of St Jude-on-the-Hill, Hampstead Garden Suburb; Chaplain to the 4th Battalion City of London Royal Fusiliers, 1913.

Two days after the British Expeditionary Force landed in France the Rev. Basil Bourchier left England with a Red Cross unit for Belgium. The Germans were then pushing their attack against the fortified towns of Liège and Namur, and two days later—that is, on the 20th August 1914—the former of these fortresses fell into their hands. The Belgian Army retreated to Antwerp, and Brussels was evacuated. It was during this *débâcle* that the Rev. Basil Bourchier, in company with Mrs Stobart of Serbian fame, was taken prisoner by the invaders near Louvain, the pillage of which city, the burning of its best treasures, and the cold-blooded murder of many who lived there, he witnessed on the night of August 25–26, 1914. He was tried and sentenced to be shot at Tongres. The sentence was, however, commuted, and he was sent to Germany and imprisoned at Aachen. At this place, first at the Kaserne, then at the Strafansalte, he and his companions suffered many hardships and indignities, their food being brought to an irreducible minimum. Good luck, however, attended them. Their case was brought before the Military Governor of Aachen, who, proving a man of humane instincts, and realising (presumably) the fact that to take and keep prisoner non-combatants was contrary to rule, ordered their release.

During the years 1915–1916 Mr Bourchier acted as Chaplain to H.M. Forces, and subsequent to holding this responsible office he had the honour of being invited four times to go to the Front for the purpose of addressing the troops on subjects of general interest. In 1919, during a visit to the Army of Occupation, Mr Bourchier revisited Aachen.

In 1915 Mr Bourchier published *For All We Have and Are*; edited and

contributed to *What is Wrong?*, being seven essays by the Bishop of London and others, in 1916; and in the same year preached in Westminster Abbey and St Paul's Cathedral.

## THE HON. SIR EDGAR RENNIE BOWRING, KT.,
58 Victoria Street, London, S.W. 1

SIR EDGAR BOWRING has been a member of the Newfoundland Legislative Council since 1897, and represented this colony on the Dominions Royal Commission from 1914 till 1917.

The principal services rendered by him during the war were the foundation, in connection with others, of the Newfoundland War Contingent Association, and the prominent part he played in raising the first Newfoundland Regiment. At the time of the outbreak of war no military force existed in Newfoundland, although there was a pre-war establishment of 500 naval reservists, in addition to local Boys' Brigades. The raising and organisation of a military force in the colony was, therefore, a work demanding considerable effort and ability. The steps taken by Sir Edgar Bowring, and those associated with him, resulted in Newfoundland contributing to the fighting forces of the Empire no less than 11,922 of all ranks. This number embraced 9326 men for the Army, 2053 men for the Royal Naval Reserve, 500 men for the Forestry Corps, and 43 nurses. In addition to this, 3000 Newfoundlanders enlisted in the Canadian and other forces, apart from those referred to above. The fighting value of these forces is clearly indicated by the fact that casualties during their service were 3661 in number. Sir Edgar Bowring personally provided a convalescent home in St John's, Newfoundland, for soldiers and sailors, which was known as "Waterford Hall," and which was placed under the management of the Women's Patriotic Association. This institution was of great value during the later years of the war, between two and three hundred patients having received treatment there. In many other ways Newfoundland also contributed to the great necessities created by the war in every direction.

Sir Edgar Bowring was the first High Commissioner for Newfoundland in London, in 1918.

R. JUST BOYD, Messrs J. Keiller & Son, Ltd.,
15 Eastcheap, E.C. 3

THE outbreak of war placed a sudden and immediate strain upon practically every branch of industry in the country, necessitating the discarding of normal methods of trade and the prompt reorganisation of industries to meet war-time demands, the ultimate scope of which no one could foresee. Jam, and preserves of all kinds, being included in the authorised rations for all troops, the firms engaged in the production of these were among the first to reorganise in order to meet the enormous demands suddenly made upon them by the Admiralty and the War Office. Mr R. Just Boyd, Managing Director of Messrs James Keiller & Son, Limited, one of the largest of these producing firms, immediately took steps to meet the situation, and it was largely due to his foresight and management that the early demands, huge as they were, were met, and that the subsequent and ever-increasing output was maintained. The call had come at the most difficult time of the year. The " soft fruit " season was over and the greater part of the supplies disposed of, with the result that only the plum, damson, and apple crops could be dealt with : hence the early surfeit of " plum and apple," of record memory.

Meetings of the eight allied firms concerned were held weekly under the directorship of Mr Boyd, when, in addition to all questions concerning the purchases of home-grown and foreign crops, difficulties relating to raw materials (particularly sugar), packages, tins, cases, and labour problems were discussed, and representations made to the various Government departments concerned as to their solution. The expert advice so tendered proved of the utmost value, and materially assisted in the maintenance of adequate supplies. In 1916, the total contracts entered into by the eight firms amounted to over 2,000,000 tins of 1 lb. each per week, and even this huge total was subsequently increased to 17,000,000 lbs. a month. When the Food Controller's Department was formed, it was found necessary for the War Office to work in conjunction with it, and Mr Boyd's expert knowledge and executive abilities proved of inestimable value to the officials of both Ministries. He was appointed a member of the Advisory Committee of the Ministry of Food, and continued to serve in both capacities until the end of the war, giving unstintingly of his time and energies and helping materially to solve the many difficult problems with which the Government were faced during the most critical periods of the war.

## MAJOR-GENERAL SIR W. S. BRANCKER, K.C.B., A.F.C., K6 The Albany, London, W.1

FIRST commissioned in Royal Artillery, September 1896; served in South African War, 1900–1901; in Royal Artillery and in various staff appointments in India, 1902–1912. First flight as observer at cavalry manœuvres, Deccan, India, in 50-h.p. Gnome Bristol Box Kite, 1911; carried out 27-mile cross-country reconnaissance; considerable flying work, 1912. In March 1913 General Brancker was appointed by the War Office to the Department then dealing in a small way with military aeronautics. In May of the same year he took the Aero Club certificate at Vickers' School; qualified as a military pilot in the following August. In 1913–1914 he acted as Sir David Henderson's chief assistant, and in the latter year carried out a considerable amount of flying work. He was the first pilot to fly any distance across the country without using the controls. This he did in order to demonstrate the stability of B.E. 2 C.

On the declaration of war, Sir David Henderson having been appointed to command the Flying Corps in the field, General Brancker became Deputy Director of Military Aeronautics in the War Office, and was thus responsible for the development of the Flying Corps up to the middle of 1915. At the beginning of this year he was promoted Brevet Lieutenant-Colonel. By this time military aviation had undergone great changes and extensions, and he was appointed to command the Third Wing of the Flying Corps in France until the end of that year. Owing to the further reorganisation and expansion of the Corps, in December 1915 he was transferred to one of the new training brigades in England, and was promoted Brigadier-General.

During March 1916 he was again on active service, commanding the Flying Corps temporarily, after which he was appointed Director of Air Organisation in the War Office, a position he held until January 1917. He was also a member of Lord Curzon's Air Board during the year 1916. In June 1917 he was promoted full Colonel, and appointed Deputy Director-General of Military Aeronautics with the rank of Major-General. This position he held until October 1917. During this year he also served as a member of Lord Cowdray's Air Board. In the autumn of the same year he proceeded to Egypt in command of the Middle East Brigade, and was at the head of the R.F.C. during the Gaza-Jerusalem campaign. The organisation of the Aviation Department was becoming so extensive that it was recognised that a special Ministry would have to be set up in order to deal efficiently with the great work which has been carried out in the different

theatres of war. General Brancker was therefore recalled to England at the beginning of 1918, and was appointed Controller-General of Equipment under the Air Council. In June of the same year he proceeded to America on a special aviation mission, and in that month was awarded the Air Force Cross. Returning from America in August, he was appointed Master-General of Personnel on the Air Council in September of the same year, and this position he held until his retirement in January 1919.

Major-General Brancker was awarded the following decorations: Air Force Cross; Croix d'Officier Légion d'Honneur; Order of St Vladimir, 4th Class; Order of St Stanislas, 1st Class; Order of the Crown of Italy, Commander; Order of Leopold, Commander; and was created K.C.B. in January 1919.

### J. BOSWELL BROWN, A.D.W.T.P., 59 Gresham Street, E.C. 2

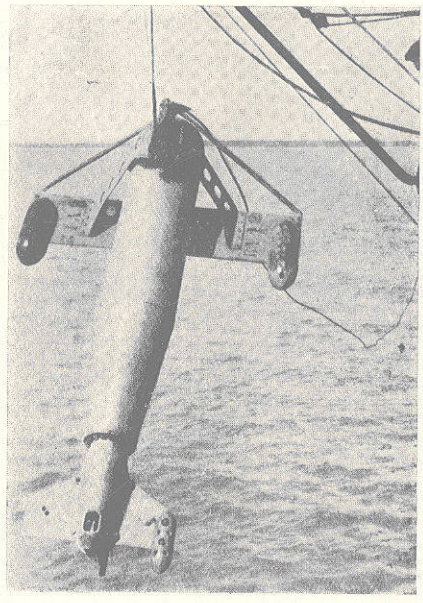
As Assistant Director of Wool Textile Production (Hosiery Section), Mr Boswell Brown brought to the aid of the Government his long experience and wide knowledge of the intricate details involved, which enabled them, in spite of enormous difficulties, to maintain an adequate supply of the essential articles of clothing for our armies on various fronts, and also to meet the huge demands of our Allies. As was the case in other key industries, control was of gradual development. Originating in the appointment in September 1914 of a Government buyer, with authority to conclude purchases on behalf of the Government both in this country and in Canada, it gradually emerged into full and complete control, operated by a special department. In 1917 this department undertook the responsibility for the conduct of the industry as a whole. Under Mr Boswell Brown's guidance, every factor bearing on production was examined in detail, and the necessary adjustments made and solutions suggested in the light of constantly changing conditions; and the report of the work of his department contains a mass of statistics of a highly technical nature, which indicates the vast amount of research work necessary for its presentation as a comprehensive whole. The maintenance of an adequate supply of skilled labour, in face of the demands made by the Army recruiting authorities, was one of the most difficult problems that had to be met, and the substitution of female for male labour could only have been achieved successfully by those possessing wide practical experience of the industry. In order that this control should be operated in the most effective and economical manner, the country was divided into two main areas—the Midland Area,

comprising Leicester, Notts, and Derby, with a local head office at Leicester; and the Northern Area, comprising the North of England, Scotland, and Ireland, with its local head office situated at Edinburgh. The administrative headquarters were retained in London, but this system of decentralisation and local control was of immense value to manufacturers, and represented a very considerable saving in both time and money. The internal organisation of this department embraced various sub-sections and interdependent departments, covering practically every phase of knitted textile production.

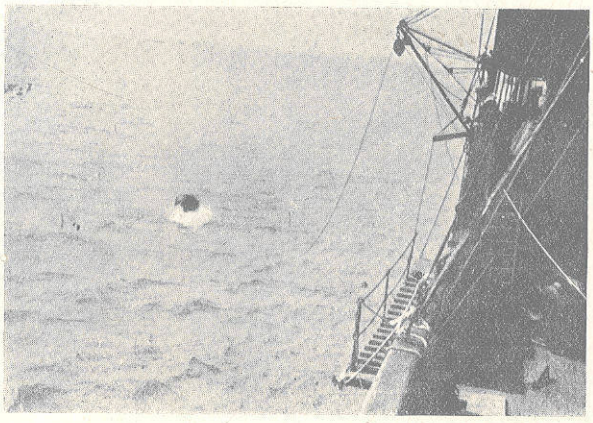
## COMMANDER C. DENNISTON BURNEY, C.M.G., R.N.,
22 Wilton Crescent, London, S.W. 1

In the year 1910 Sub-Lieutenant Burney was appointed to H.M.S. *Crusader* to work on the Anti-Submarine Committee formed in that year. Prior to this he had interested himself in subjects appertaining to the defence of this country by air as well as by sea. It was due to the gift of imaginative deduction that he was enabled to forecast the lines on which a future war would be likely to develop. In September 1911 he severed his connection with the Anti-Submarine Committee in order to pursue his investigations at the experimental aviation works of Sir George White of Bristol, and when war broke out Lieutenant Burney devoted all his spare time to studying the possibilities of the hydro-aeroplane or seaplane. It was these years of study in the particular direction indicated that provided him with that special knowledge of design and construction which served him so well in the direction of inventing a machine having as its object the destruction of the most insidious enemy against which Great Britain had to fight, namely, the submarine. The continual sinking of British merchant vessels during the first years of the war spurred the energies of Lieutenant Burney to devise some means of defence against these under-water craft, and from the time war broke out until February 1916 the whole of his efforts were directed towards solving the problem. In that month Commander Burney and another officer visited Scapa Flow, taking with them the result of the former's labour, which was subsequently called the "Paravane." This invention was placed before and explained to Admiral Sir John Jellicoe, and its possibilities so appealed to him, that he supported Lieutenant Burney in his endeavours to get the appliance adopted for war purposes, which it eventually was.

The Paravane itself consists of a buoyant torpedo-shaped body having a plane fitted across the nose, and is so constructed that when towed from a ship it floats at a certain depth below the surface, at which depth it remains while the ship is a-way, and is not affected by the fluctuations of course or speed of the ship. With the object of making the Paravane a destructive appliance for dealing with submarines an explosive charge was carried in it, which could be fired by impact or by other means. This form of Paravane was known as the high-speed Submarine Sweep. Commander Burney also recognised that the mine danger was one which similarly threatened the radius of the Fleet, and he introduced a second form of design for cutting the mooring wires and enabling a ship to pass through the mine-field untouched. The head of this Paravane was fitted with steel-teeth jaws forming a cutter. In both of these types the towing wire of the appliance was attached to the bows of the ship at the level of the keel, and was so arranged that they floated at a definite distance from the side of the vessel. The type of Paravane which was fitted to merchant vessels was known as the "Otter," in order to differentiate it from that used on vessels of war. The size of these appliances was from 6 to 12 feet long, according to the purpose for which they were used. It is, of course, impossible to give any mechanical details of this remarkable invention.



View of "Otter" Paravane being hoisted in.



View from forecastle of s.s. *Accrington*. The starboard "Otter" has just moored off submerged dummy mine. Mine is seen leaping to surface clear of ship.

The success, however, of the important work carried out is indicated by the following statistics. From March 1916 until October 1917 the Admiralty stated that the occasions on which the Explosive Paravanes have fired during service numbered fifty-three, some success being registered on twenty-one occasions. In five of these,

incontestable proof was forthcoming that the submarine had been sunk. Owing to the nature of the gear itself and the manner in which it works, however, it was impossible to ascertain in how many other instances the Explosive Paravane was the means of inflicting such damage upon the submarine as to prevent it returning to its base. With regard to the Mine-cutting Paravanes, statistics show that the total tonnage saved by the Protector Paravanes and Otters respectively was: Paravanes (H.M. ships), 525,333 tons; Otters (merchant ships), 244,374 tons.

The total estimated value of vessels and cargo saved to the British Empire by means of the Paravane gear was approximately £100,000,000. This figure does not, however, take into account merchant ships which did not report the cutting of mine moorings, nor of the Russian, French, American, Italian, and Japanese war or merchant ships which had secured immunity before submarine attack by the use of this service. Apart from those material advantages, many hundreds of lives were also saved.

The above photographs were taken by Commander G. S. Bowles, R.N., and are reproduced, by permission, from *The Paravane Adventure*, by L. Cope Cornford.

## COLONEL BURN, M.P., A.D.C. to the King, 10 Hill Street, Berkeley Square, S.W. 1

Colonel Burn served throughout the Hazara campaign of 1888 as A.D.C. to General Sir J. Macqueen, and was mentioned in despatches. He also served throughout the South African War in command of the Brigade of Mounted Troops under General Sir A. Hunter; and, at the request of the authorities, Colonel Burn raised the Scottish regiment of Imperial Yeomanry and went out to South Africa in command of that regiment, which was composed of four squadrons formed from the different regiments of Yeomanry in Scotland. He previously served as A.D.C. to the Viceroy of India, A.D.C. to the Duke of Connaught, 1891–96; and on his return from South Africa he raised the 2nd Battalion of Imperial Yeomanry, Westminster Dragoons, at the request of the War Office authorities. This regiment served throughout the war in Egypt and France.

The responsible and adventurous work, which even in normal times is associated with a certain amount of risk, of carrying despatches from one country to another, was naturally greatly intensified under war conditions. It was in

work of this character that Colonel Burn achieved considerable fame. On 15th August 1914 he rejoined the Army and was graded as General Staff Officer, being detailed to carry despatches between Headquarters in London and the General Officer commanding on all the different fronts. In the early days of the war he carried the despatches from G.H.Q. in France to Field-Marshal Sir John French and to Sir Douglas Haig's headquarters at the first battle of Ypres, the headquarters being established in a hovel by the roadside or at any place suitable for military work. During the fighting which was proceeding in Egypt in 1915, he carried British despatches to that country, picking up French despatches in Paris and conveying them to the headquarters in Egypt four times during that year. In 1916 he was detailed to carry British and French despatches to the Commander-in-Chief in Gallipoli on three occasions, and in addition he conveyed despatches to the British Commander-in-Chief in Italy, first to Sir H. Plumer and later to Lord Cavan; this duty he fulfilled on nine occasions. He also carried despatches from London and G.H.Q., France, for Egypt and Mesopotamia to Taranto, where they were handed over to the British Naval Commander-in-Chief for despatch by destroyer. During 1916 and 1917 he visited the Russian General Headquarters three times, and in January of the latter year, before returning to England, had an audience with the late Tzar of Russia, bringing home family messages to His Majesty the King, Queen Alexandra, and the Duke of Connaught. When carrying despatches to the Commander-in-Chief in France his duty necessitated going direct to G.H.Q. and receiving further instructions as to the exact position which the Commander-in-Chief occupied. Up to the time he was demobilised, on 5th February 1919, he crossed the English Channel no less than 392 times carrying despatches to the G.O.C. British Forces in France and Belgium. The great extent and variety of this work necessitated travelling through neutral countries, which involved the exercise of great secrecy and diplomacy. It was Colonel Burn who brought home the first full description of the movements and intentions of the Russian Army. This responsible and delicate work he carried out until the signing of the Armistice.

### DAME CLARA BUTT, Compton Lodge, Harley Road, South Hampstead

WHILST her husband (Mr Kennerley Rumford) was serving at the Front, Dame Clara Butt was rendering valuable service at home, giving generously of her time and her art for the benefit of the troops and of the many war organisations

and charities which needed help. At the outbreak of war her first thought was for her fellow-artists, to whom its coming meant serious loss of engagements and consequent hardships. She devoted the proceeds of her spring and autumn tour to the starting of the Clara Butt-Rumford Fund for the relief of fellow-artists in distress, and also organised touring concert parties, which were sent to hospitals, asylums, workhouses, and kindred institutions, in order to provide employment for the singers, their fees and expenses all being found by her. Later on Dame Clara Butt organised tours throughout the country, which lasted for four or five months at a time, the Clara Butt-Rumford Fund paying all the artists' fees and expenses, the proceeds of these being handed over intact to the British Red Cross Society. Dame Clara Butt also gave and sang at many concerts herself in aid of the Red Cross, and at one concert alone that was held at the Royal Albert Hall in May 1915, she succeeded in raising over £9000. It is not possible to particularise all the numerous entertainments she gave in aid of the Red Cross, the Three Arts Workrooms, the Queen's Work for Women Fund, and St Dunstan's, etc., all of which benefited by her generosity. By her unremitting efforts she raised approximately £100,000, the artists' fees, in every case, being paid out of the Clara Butt-Rumford Fund. Among the most conspicuous of these, mention may be made of a week's performance of Sir Edward Elgar's *Dream of Gerontius*, in 1916, and nine magnificent performances of Louis N. Parker's pageant, given at the Queen's Hall for the benefit of the Red Cross Society.

### MRS CHARLOTTE CAMERON, O.B.E., F.R.G.S., 36 Carlton Hill, N.W. 8

To Mrs Charlotte Cameron belongs the distinction of being probably the most travelled woman in the world. Having just completed a 27,000-mile journey, Mrs Cameron found herself in German territory in South Africa when war was declared. Being detained there, she had ample opportunities of studying first hand the German methods of colonisation, which knowledge she eventually put to good use by lecturing throughout America on the atrocities and cruelties she had witnessed personally in German territory. For this valuable propaganda work in a country which had a considerable pro-German population Mrs Cameron was awarded the O.B.E. and War Medal. A unique example of Mrs Cameron's war work was the initiation by her of a branch of the Red Cross among the Esquimaux, which rendered valuable service in collecting vast quantities of feathers for pillows, eider-downs, etc., and skins which were utilised in the manufacture of all kinds of articles. As a memento of this work Mrs Cameron possesses

what is probably the most primitive emblem of the Red Cross in existence. This is made of reindeer hide, with a crude Red Cross in the centre. On her return to England she gave a series of lectures in aid of the Prisoners of War Fund, and undertook arduous and useful work at the Free Buffet at Victoria Station.

## THE RIGHT HON. EVELYN CECIL, M.P.,
2 Cadogan Square, London, S.W. 1

Mr Evelyn Cecil's chief work during the war has been as Secretary-General of the Order of St John of Jerusalem. He took over the office, left vacant by the death of Sir Claude Macdonald, G.C.M.G., in 1915, and for the whole of the rest of the war he acted as working head of the Order, and was responsible for the smooth running of the central body in Clerkenwell. It was from there that the various activities of the Order emanated—the Brigade, with its tens of thousands of volunteer workers, and the large hospital at Etaples, in France; the Ambulance Department, and workrooms for the supply of requisites for the many hospitals and centres under the Order in England, in conjunction with the British Red Cross Society. The St John Hospital in Jerusalem was reorganised as soon as the Turks, who had used it as an ammunition dump, were driven back.

Mr Cecil held the position of Vice-Chairman of the Joint War Committee of the British Red Cross Society and Order of St John of Jerusalem, and was a member of the Joint War Finance Committee.

His work took him to France on several occasions to visit the various units connected with the Order along the Front, but it was chiefly in a daily round of arduous office administration at the centre that his work lay.

This necessary organisation continued after the war during the lengthy process of demobilisation, and the settling down to joint peace work also involved much readjustment, as, although the St John Brigade and Ambulance had always been active in peace time, the British Red Cross Society only arranged to participate in it on similar lines under a new charter obtained after the war, when a joint peace agreement between the two bodies was arrived at. The usefulness of the St John Ambulance Brigade in the London area was particularly conspicuous owing to the assistance it rendered during air raids.

In the early days of the war, before becoming Secretary-General, Mr Cecil was treasurer of King Albert's Civilian Hospital Fund for Belgium, and made arrangements in Belgium and at home for the aid of homeless and suffering Belgian civilians in the small corner of Belgium not occupied by the enemy.

As early as June 1915 he moved a resolution in the House of Commons for greater economy in the conduct of the war, and in consequence the Public Retrenchment Committee, of which Mr Cecil was a member, was set up by the Government, with the Chancellor of the Exchequer (Mr M'Kenna) as chairman.

One of the most valuable contributions of service rendered by Mr Cecil throughout the war was as an active member of the Inter-Allied Parliamentary


The Right Hon. Evelyn Cecil, M.P., opening a new First Aid Dressing Station at Acton Vale.

Committee, which consisted of twenty-five members of the Lords and Commons, with the same number of French and of Italian senators and deputies, together with one or two Belgian representatives. At the first meeting of this Committee in Paris in February 1916, he initiated a discussion on war finance and another on munitions; and on several occasions, as a member of the British delegations, he visited Paris and Rome, and took an active part in receiving the foreign delegates when they visited this country. The important work carried out by these delegations in maintaining the close sympathetic relations between the Allies was achieved so quietly as to be little known or heard of outside political circles.

## THE CENTRAL MEAT MARKETS, Smithfield, London, E.C. 1

THERE is probably no finer example of the manner in which certain branches of trade and industry grasped the necessities of the situation when war broke out than that reflected in the prompt action taken by the Central Meat Markets in connection with the food supply. It may also be regarded as one of the most remarkable achievements in organisation effected during those early days of uncertainty and excitement. In order to understand the difficult position in which the wholesale trade found itself, it should be stated that there were altogether 187 firms engaged at Smithfield in this work, and that their business varied in extent from handling 50,000 to 2,000,000 carcases a year. In order to cope fully with the conditions which they foresaw would certainly eventuate, they took the drastic step of amalgamating the whole of these firms, and placing them under the sole control of ten men appointed by the Ministry of Food. The ten selected were : Mr Fred Bonser (Chairman), Mr C. W. Clark, Mr H. M. Fitter, Mr Thomas Fraser, Mr Gordon Pool, Mr Pat Taylor, Mr W. H. Key, Mr A. F. Fitter, Mr J. Smith, Mr H. Reading. The following gentlemen were added as special members of the Board by Lord Rhondda as representatives of the retail trade and the labour interests in the Market respectively : Mr Fred. Griffiths, Mr D. Carmichael.

Mr A. P. Twigg, who to a great extent originated the scheme, occupied an official position at the Ministry of Food as Supervisor, which position involved acting as liaison officer between the Ministry of Food and the Central Markets. The decision to pool the whole of the meat supplies was arrived at and the whole work of unifying the varied interests was carried out in one night. This body of ten formed the Smithfield Control Board and directed the whole of the operations of the firms. There is probably no parallel in the whole realm of trade and industry with what was not only a most remarkable achievement, but was an expression of the greatest devotion to the interests of the country in those momentous days. Under this scheme every firm severed its connection between the sources of supply and the retailer. The meat was passed out in bulk, under the direction of the Board, to different districts, by which means they were able to provide every district in London with precisely the same percentage of British and imported meat. The old system of delivering direct to the butchers in London was completely suppressed, and in its place a Committee which had been appointed nominated an allocator in each district. The meat was handed out to groups of butchers, in bulk, and the allocator saw that it was distributed fairly according to the number of consumers which each butcher had to supply.

The butcher had no say in the matter whatever, but had to abide by the decision of the allocator. It should be stated that the only firms who were not drawn into this pooling scheme were the British firms who imported American meat, and the reason that these were not included was that they were in such a strong position that the Government could not compel them to come in. This American group, however, agreed to fall into line provided that the Government allowed them 20 per cent. of the retailers' requirements, no matter what conditions arose in the future. During the period of Government-controlled meat the American firms had a free hand, and thereby secured a large amount of business, which is even now militating against the efforts to regain the trade being made by the British firms. Some idea of how far this affected the latter may be gained from the fact that during the period of control the sale of meat amounted to 5000 tons per week, as compared with nearly 9000 tons in normal times.

The sacrifice which the wholesalers made in the interests of the country was also shown by the fact that they relinquished the whole of their profits, accepting the small remuneration of £750 a year for their services on the Committee.

Early in 1916 a Committee of the Meat and Allied Trades was formed to raise the sum of £100,000 for the Red Cross. This included some of the most influential gentlemen in the trade, and under the chairmanship of Mr Gordon Campbell—now Sir Gordon—they not only secured this amount, but were ultimately able to hand over the magnificent sum of £269,000.

When the Charterhouse Hotel was taken over by the Government for limbless men, the salesmen in Smithfield Market appointed a committee to look after their interests. A fund was collected in the Market through which these men were supplied with extras for breakfast and tea, billiard and bagatelle tables, cards, books, and cigarettes. Weekly concerts were also arranged. By the kindness of theatre and music-hall managers hundreds of them were enabled to visit the different places of amusement. Country outings, picnics, and free access to cricket and football matches were also provided; but the greatest service rendered to these men was the school started to enable them to gain practical instruction in the use of their artificial limbs. A full-time instructor was engaged, and the men became wonderfully proficient in the use of their arms. So successful was this system that it was ultimately adopted as the model for the whole country. Their Majesties the King and Queen, together with Princess Mary, honoured the hospital with a visit, and expressed themselves as highly gratified with the work.

As a memorial to the 195 men of Smithfield Market who fell in the war, three beds were endowed in St Bartholomew's Hospital, and a beautiful monument is to be erected in the Market in honour of the brave men who went from us and who did not return.

## LIEUT.-GENERAL SIR H. G. CHAUVEL, G.C.M.G., K.C.B.,

Department of Defence, Melbourne, Australia

ACTING as Australian representative at the War Office from August 1914 until December of the same year, Colonel Chauvel was then appointed to the command of the 1st Australian Light Horse Brigade, with the rank of Brigadier-General. This command he retained until the end of 1915, when he was promoted to the rank of Major-General and took temporary command of the 1st Australian Division at Gallipoli. For his service in Gallipoli he was decorated with the C.B. In March 1916 he was appointed to the command of the Australian and New Zealand Mounted Division in the Egyptian Expeditionary Force. This command he retained for thirteen months, going through the actions at Romani, Magdhaba, and Rafa, and being decorated with the Order of the Nile, 3rd Class, and the K.C.M.G., which was specially awarded to him for his conduct of the last-named operations.

In April 1917 Lieut.-General Chauvel succeeded Sir Philip Chetwode in the command of the Desert Column, Egyptian Expeditionary Force, which later became the Desert Mounted Corps and, composed of British, Australian, New Zealand, Indian, and French cavalry, constituted the largest mounted force known in modern history to have been handled by one commander. The Desert Column, in which was included the Australian and New Zealand Mounted Division, was responsible for the destruction of all the Turkish forces in the Sinai Peninsula, and the preparatory operations necessary for the invasion of Palestine. As the Desert Mounted Corps it carried out the turning movement at Beersheba, in November 1917, which led to the capture of Jerusalem; it cut the enemy's communications on the Plain of Esdraelon, or Armageddon, on 20th September 1918; and, in conjunction with the 20th and 21st Army Corps, under the command of Lieut.-General Sir Philip Chetwode and Sir Edwin Bulfin respectively, it stopped the retreat of the 7th and 8th Turkish armies, which were completely destroyed. In October 1918 the Desert Mounted Corps, still under the command of Lieut.-General Sir H. Chauvel, captured Damascus and

Aleppo, completely wiping out the remains of the Turkish armies which had been opposing General Allenby. So overwhelming was this victory, and so far-reaching were the moral effects, that it may be described as having brought about the collapse of the Turkish Empire and the consequent withdrawal of Germany's allies from the war.

In recognition of his later services, General Chauvel, who also held the administrative command of the Australian Forces in the Eastern theatre of operations for the last two years of the war, was awarded the K.C.B. in 1918, the Order of the Nile, 2nd Class, the French Croix de Guerre in the same year, and the G.C.M.G. in 1919.

### THE LADY CHEYLESMORE, 16 Prince's Gate, London, S.W.7

Of all the refugees who were forced to fly from Antwerp on the eve of its occupation by the Germans, there were probably none upon whom the consequent hardships fell more heavily than the nuns and orphans, who were obliged to evacuate their convents and sanctuaries. They eventually found sanctuary in England, and were at first sent to Chelsea, over which district, already overcrowded with Belgian refugees, they were scattered, as suitable accommodation could be found. When Lady Cheylesmore heard of their plight and the inconvenience caused by the separation of these essentially self-contained communities, she at once placed her country house at Cooper's Hill Park, Englefield Green, at their disposal. It was sufficiently large for the accommodation of thirty children and sixteen nuns, and here, under the Mother Superior, they were brought together and resumed their convent life and work until after the cessation of hostilities. Lady Cheylesmore also arranged for and undertook the accommodation of numerous French and Belgian families in other houses in the neighbourhood, while she took a special and personal interest in the education and training of the children of these refugee families, with the result that many of them have since been placed in domestic service, among her friends, with excellent results. Lady Cheylesmore received the Order of " Mérite de la Reine Elizabeth " from the King of the Belgians, in recognition of her four and a half years' devotion to the nuns and orphans, whom she supported at her own expense until their return home in January 1919.

### SIR GILBERT CLAUGHTON, Bart., 5 Lygon Place, S.W. 1

Although he occupied many responsible positions, including the chairmanship of the London and North-Western Railway, the Round Oak Iron and Steel Works, Ltd., and the Baggeridge Colliery, Ltd., Sir Gilbert, who was also a Director of Barclay's Bank and the North British and Mercantile Insurance Company, filled many official positions during the period of hostilities. Acting throughout the war as one of the Government directors of British Dyes, he was appointed, in July 1915, a member of the Retrenchment Committee on Government Departments, which office afforded unlimited scope for his vast experience of organising and administration. In June 1916 he was appointed by the Board of Trade a member of the Departmental Committee to investigate the principal causes which were responsible for the rapidly increasing prices of essential commodities, and it was to a great extent due to the findings of this committee that the ultimate stabilisation of prices became possible.

In August 1916 the Government, realising the unsatisfactory state of education in this country compared with Germany, where children leaving school are compelled to continue attending technical classes, appointed Sir Gilbert, amongst others, to inquire into the position of natural science in the educational system of Great Britain. He was also appointed in October of the same year, when the labour situation was a source of considerable anxiety, to serve on a sub-committee of the Reconstruction Committee which was investigating the possibilities of improving the relationship between employers and employed. The research conducted by this committee, since designated the Whitley, contributed vastly towards the efficiency of operations, not only in munition factories, but throughout the whole of the industrial concerns of the country.

### BRIGADIER-GENERAL GEORGE KYNASTON COCKERILL, C.B., M.P., 19 Knightsbridge, S.W. 1

General Cockerill, who retired from the Army in 1910 in order to stand for Parliament, had, in 1907, relinquished charge of the Special Intelligence Section (M.O. 5) of the Imperial General Staff at the War Office, in which he had served since his return from the South African War in 1902. On the outbreak of the Great War, General Macdonogh, who was then in charge of M.O. 5, joined Sir John French's staff as Chief of Intelligence, and General Cockerill, who was commanding the 7th (Special Reserve) Battalion Royal Fusiliers, was ordered to the War Office to serve again in his old section. In September 1914 he

succeeded once more to the charge of it, and from that time till after the Armistice he remained responsible for the development and control of an Imperial intelligence service, described later by the French as "incomparable." Under his direction were included all the services specially created by authority of the Army Council for the purpose of tracing and countering the secret activities of enemy governments within the British Empire and in neutral countries, and of preventing the disclosure of naval and military secrets. As the work increased, the Special Intelligence Section rapidly expanded until, from very small beginnings, it became, in point of mere size, one of the six largest Government departments, numbering at the close of the war no fewer than 6000 persons. Its duties, however, were for the main part of so secret a character that it was thought desirable, as far as possible, to conceal its very existence from the outside world. On the 1st March 1915 it was reorganised, and General Cockerill was appointed Sub-director of Military Operations and Director of Special Intelligence. Among the many services he controlled may be mentioned the British Secret Service, the Imperial Cable Censorship, and the Postal Censorship—all of which, in addition to their more obvious functions, proved indispensable for the enforcement of the blockade and of the Defence of the Realm regulations,—the Economic Section of the General Staff, and, up to the 31st August 1918, the service of Military Propaganda, to the efficiency of which Ludendorff, in his *War Memories*, pays such striking tribute. His department was also responsible for the detection and conviction of enemy spies, and was the chief instrument for the protection of factories, railways, and vital points from interference by enemy agents. Thanks largely to its vigilance, no act of destruction or incendiarism was committed in this country by such persons; while, by its efforts in other directions, information of immense value to the naval, military, political, and war trade intelligence departments was continually being secured. To facilitate the exchange of information, special intelligence missions were established in Paris, Rome, Petrograd, and later in the United States of America. Very early in the war General Cockerill took a prominent part in creating in Paris a central organisation for co-ordinating the special intelligence services of the Allies, the first practical step towards unity of command. For his services in the war he was awarded the military C.B. (1916) and promoted Brevet Colonel (1917). He also received, in each case as a special and personal distinction, the following decorations: Commander of the Legion of Honour, Crown of Belgium and Crown of Italy; Star of the Japanese Order of the Sacred Treasure; and Grand Cross of the Russian Order of St Stanislas. He vacated his appointment on the 1st January 1919, having been elected M.P. for the Reigate Division of Surrey in December 1918.

## HONORARY COLONEL W. F. COCKSHUTT, M.P., Brantford, Canada

At the outbreak of the war Colonel Cockshutt, M.P., offered his services to the Government, and, being above military age, took up the work of addressing recruiting meetings at his own and other centres. He also served on the local Patriotic Committee throughout the war, as well as on the War Loan and Victory Loan Committees each year. He subscribed liberally to Patriotic, Red Cross, Mercantile Marine, and other war funds.

In the autumn of 1915 Colonel Cockshutt was entrusted with the formation of the 125th Battalion C.E.F. This was successfully recruited and manned by Brantford and Brant County, whence also all the officers and men for this splendid and efficient unit were drawn. The battalion at full strength went overseas in July 1916, both officers and men performing excellent work on many battle-fields. The colours of the battalion were presented by Mrs Cockshutt in May 1916.

Colonel Cockshutt joined the Parliamentary Officers' Training Class in January 1916, taking a course in ordinary military drill and attending classes of instruction. During this period he wore the prescribed uniform of the Army, largely for the purpose of being an example to others, and in this way materially helped recruiting in his home and county, which, with a population of approximately only forty-five thousand, added between five and six thousand men to the forces of the Empire.

Colonel and Mrs Cockshutt gave three sons to the service—Major William Ashton Cockshutt, Captain George Turner Cockshutt, and Lieut. Eric M. Cockshutt. The two former were qualified lieutenants when war broke out, the elder in the 103rd Calgary Rifles and the second in the 38th Dufferin Rifles. The two elder sons went overseas in the first year of the war. Major Ashton at that time was a lieutenant and served in the 10th Battalion, being present at the second battle of Ypres and most of the succeeding battles in which Canadians were employed until 7th June of the same year, when he was wounded by shrapnel. He was invalided home to Canada towards the close of the year 1915, where, after a slow recovery, he again enlisted with the 125th Battalion, and went overseas for a second time, in all serving over four years with these two battalions. After completing his training with the 19th Battalion, Captain George Cockshutt went overseas in May 1915 and reached the Front in September, where he served for nine months, fighting at St Eloi and many of the succeeding battles. He was invalided back to Canada toward the end of 1916. After recovery, he continued as a trainer in the 205th Machine Gun Corps, and went overseas as a Captain for the second time

in the 1st Canadian Tank Battalion, but only saw two or three weeks' further service at the Front, with the Imperials, towards the closing days of the war. Lieut. Eric enlisted in March 1916 with the 54th Battery, Canadian Artillery, took a course at Kingston Royal Artillery School, and, after further training in Woolwich and other schools, reached the Front the same year, where he served for three years with the 1st Canadian Field Artillery. He took part in nearly all the great battles of the war in which the Canadians were engaged in the closing three years of the conflict, and reached Germany.

### LADY COWAN, 215 Ashley Gardens, London, S.W. 1

In the spring of 1915 the nation learnt with surprise, and some alarm, that our armies in Flanders were short of shells. The ranks of the workers at home had been depleted by the call to join the colours. The number of men available for the production of munitions was being continuously reduced, while the demand for munitions was constantly increasing. The women of the industrial classes, who had responded nobly to the call of the factory, proved themselves, in almost every department, competent and efficient substitutes for the men whom they replaced.

So great was the demand for shells and other munitions of war that it became necessary to work the factories seven days and nights per week. In the course of a few months the strain began to tell on the women workers, and it became imperative that some relief should be given them.

At this juncture it occurred to Lady Cowan (wife of Sir Henry Cowan, M.P.) that the educated and leisured women of the country would, if they realised that the nation had need of them, willingly and eagerly offer their services for the relief of their overstrained and overburdened industrial sisters. She accordingly, after conferring with several influential women, wrote a letter (which appeared in the *Daily Chronicle* of 29th May 1915) outlining a scheme for the utilisation of this novel form of labour, and calling upon the Government to afford the necessary facilities.

Encouraged by the immediate response to her suggestion by the women of the class to whom she appealed, Lady Cowan communicated with the owners and managers of several important munition establishments, without, except in one instance, receiving any encouragement from these quarters. The one exception was that of Messrs Vickers, whom she approached through Sir Trevor Dawson, who immediately sent a representative to interview her, and subsequently invited

her to visit the Company's factory at Erith, with a view to the experimental introduction of the week-end relief system there.

At this and all subsequent stages of the enterprise, Lady Cowan had associated with her Lady Moir, who threw herself enthusiastically into the work, and co-operated in carrying it into effect.

As soon as Messrs Vickers' approval had been obtained, immediate steps were taken for putting the scheme into practical operation at Erith, and Lesney House was leased in the joint names of Lady Cowan and Lady Moir, and equipped

Lady Cowan with group of munition workers.

by them as a place of residence for ladies during their period of training. At a later date it was found necessary to open a second hostel to accommodate the constantly increasing band of workers.

The scheme was speedily extended to other factories, being recommended to employers by the Week-end Relief Section of the Ministry of Munitions. It was also introduced in several important provincial munition centres, notably in Glasgow and Newcastle.

Shell-making was not the only munition work undertaken by these week-end workers. Valuable service was rendered in the engraving of gun-sights, and in other delicate operations. Branches of the parent organisation were established in other cities, and the Glasgow Week-end Munition Workers were conspicuously successful in their efforts to introduce the system on the Clyde.

During two strenuous years the educated women munition workers contributed their full share to the production of materials of war. It was only when, through the splendid organisation of the Ministry of Munitions, the output tended to overtake the demand that they began to lay down their tools in order to ensure that no industrial worker should suffer by their presence.

As a result of this relief munition work, the production of munitions during the most critical period of the war was very considerably increased, and the strain on the industrial hands correspondingly lessened. It was proved beyond the possibility of a doubt that the women who, during the war, claimed and exercised the right to work for their country, were not restricted to any one section of the community.

DR ARTHUR WILLIAM CROSSLEY, C.M.G., C.B.E., D.Sc., P.H.D., Hon. LL.D., F.R.S., British Cotton Industry Research Association, Shirley Institute, Didsbury, Manchester

THE month after war broke out Dr Arthur William Crossley, who held a high position among scientific men, was appointed a member of the Government Committee to inquire into the possibilities of producing salvarsan in this country, and in October 1914 he was appointed Secretary of the Royal Society's Chemical War Committee. This position involved a considerable amount of responsible work in connection with the preparation of important drugs, such as novocain, which had hitherto been obtained from Germany. The organisation for this work included the use of the laboratories of the various universities and university colleges throughout the country; and so efficiently was the work carried out, that many of the various drugs produced, then urgently required by the Navy and the Army, are now manufactured in this country in large quantities. In April of the following year, after the first gas attack by the Germans, Dr Crossley was sent by the War Office to Paris to investigate the subject and inquire into the steps to be taken by the French Government regarding this particular form of warfare. In May of the same year he was nominated by the Royal Society as the chemist to serve on the Trench Warfare Committee of the Ministry of Munitions; and in the following month he was appointed Secretary of the Trench Warfare Research Committee, a body which dealt with all questions relating to chemical warfare, and which later became known as the Chemical Warfare Committee. In November 1916 Dr Crossley was commissioned as Lieut.-Colonel on the general list, and was also appointed to act as liaison officer on all chemical matters between the Ministry

of Munitions and the French and British forces in the field. This position he held until June 1916, when he was appointed Commandant and Superintendent of the R.E. Experimental Station, Porton, with the rank of Lieut.-Colonel, Royal Engineers. At this station all problems connected with gas warfare were investigated and worked out, and the growth, organisation, and development of the station were due to Colonel Crossley's efforts. At the time of the Armistice this station comprised 50 officers, 1200 N.C.O.'s and men, and 500 civilians, and had for experimental purposes 50 guns of various calibre. For the varied scientific work Colonel Crossley carried out he was awarded, in June 1917, the C.M.G.; in September of the same year he received the order of Officer of the Legion of Honour; and in December 1919 he was awarded the Military C.B.E. In addition to this he was mentioned three times in despatches.

COLONEL CUMMINS, R.A.M.C. College, Grosvenor Road, S.W. 1

On mobilisation in August 1914, Colonel (then Major) Cummins, who had for some six months previously been employed as Professor of Pathology at the Royal Army Medical College in London, joined General Headquarters and proceeded to France as Medical Officer in Charge of the First Echelon.

Landing at Le Havre, he accompanied Sir John French's staff to Le Cateau, where his work commenced at high pressure. At that time war establishments allowed for no administrative medical staff at the First Echelon of General Headquarters, and Major Cummins was obliged, in addition to his work in charge of the staff, to improvise medical arrangements for the numerous "details" that drifted to Headquarters from all sides. A few days were sufficient to show that it was absolutely necessary to create an administrative medical staff to work under the Adjutant-General; and Colonel (now Lieut.-General Sir) T. J. O'Donnell was brought to General Headquarters as Deputy Director of Medical Services.

From this time onwards Major Cummins filled the dual rôle of Medical Officer in Charge of Headquarters and Staff Officer to Colonel O'Donnell. During the retreat, more and more administrative work fell to his share, and the medical problems of war became still more acute during the advance, when the large numbers of wounded from the Marne and the Aisne made increasing calls on the administrative work of the Royal Army Medical Corps. At Fère-en-Tardenois the pressure of work became so heavy that, at the instance of the Adjutant-General, Sir Nevil Macready, Major Cummins was officially posted

as Deputy Assistant Director of Medical Services at General Headquarters. It was a moment of intense interest to all students of the medical problems of war. The system of field medical organisation laid down in Field Service Regulations was found to require many alterations when put to a practical test, and Major Cummins, as Staff Officer to the D.D.M.S., was at once engaged in helping to modify and adjust existing medical establishments to actual needs and in bringing into existence the new units and formations required. The main problems to be faced were the provision of accommodation for wounded at rail-heads, the more comfortable and expeditious evacuation of casualties from the divisions in action, and methods of co-operation with the railway transport staff.

Some of the problems that engaged the attention and co-operation of Major Cummins in his new capacity as Staff Officer to Colonel O'Donnell, both on the Aisne and later at St Omer, were the creation of motor ambulance convoys, the development of the clearing hospitals (soon rechristened casualty clearing stations) and their use in echelon from points close behind the fighting line back to rail-heads, the posting of nursing sisters to these units, the provision of dentists for troops in the field, the sending to France of mobile laboratories, the improvisation of supplementary ambulance trains, and the creation of ambulance flotillas (floating hospitals in specially equipped barges) for use on the canals.

The first three months of the war were months of vast change and development, and, on the arrival of Sir Arthur Sloggett from England, Major-General O'Donnell was able to hand over to him a completely new system of field medical organisation in the forward area in a shape that, with but little alteration in principle, had become the accepted system for European warfare.

During 1915 Major Cummins continued to serve as Staff Officer to General O'Donnell, who had now become Deputy Director-General of Medical Services on the staff of Sir Arthur Sloggett. When the Germans launched their first gas attack upon the Ypres salient in April of that year, a new sphere of work was opened up, and, at the request of Sir Nevil Macready, Lieut.-Colonel Cummins was charged with the administrative work of anti-gas defence under the Adjutant-General in France.

In this capacity he was instrumental in bringing into existence the Central Laboratory at General Headquarters—a laboratory in which, under the direction of Professor Watson, Captain Mouat Jones, and Captain Auld, fundamental problems connected with the manufacture of anti-gas masks and helmets, anti-gas sprays, and other measures of protection, were rapidly examined and solved. Lieut.-Colonel Cummins also obtained authority for the appointment of chemical advisers to armies; co-operated with Lieut.-Colonel Foulkes, R.E., who was, by

now, creating the Special Brigade for Gas Warfare; and maintained close touch with Colonel Sir W. H. Horrocks, A.M.S., at the War Office, under whose guiding hand a vast organisation for the manufacture of anti-gas masks and other appliances had been rapidly brought into being.

In March 1916 Sir Nevil Macready urged upon the Commander-in-Chief the advisability of placing all gas services, both offensive and defensive, under the General Staff at General Headquarters. This advice was immediately followed. Brigadier-General Thuillier, R.E., was summoned to G.H.Q. as Director of Gas Services, and Lieut.-Colonel Cummins was posted to serve under him as an Assistant Director of Gas Services for Defence, while Colonel Foulkes, R.E., was appointed Assistant Director for Offensive Operations, still retaining command of the Special Brigade. For the next fifteen months Colonel Cummins remained on the Gas Directorate while this department took definite shape and grew to important dimensions. During this period the anti-gas helmet was replaced by the box respirator; a complete organisation of army corps and divisional gas officers and instructors was formed; and pamphlets containing instructions for anti-gas measures throughout the Army were drafted and issued. A further development was the formation of a Physiological Branch of the Gas Directorate, inaugurated for the study of the effects of gases on man and animals, and to co-operate with the scientists working on these problems in England. Close touch was also ensured with the chemists and physiologists working for the French Army, and, before quitting the Gas Directorate, Colonel Cummins had the pleasure of organising the first Physiological Conference on Gas Warfare in Paris in May 1917.

Gas warfare had now become a definite combatant problem, and, feeling that he was losing touch with medical work, Colonel Cummins applied for a transfer to R.A.M.C. for duty. In June 1917 he was ordered by Sir Arthur Sloggett to proceed to Italy with General Crowe's Mission of Reconnaissance, and he spent the next month in working out a scheme for medical services in view of a force being sent across the Alpine Passes.

On his return to France in July 1917 he was appointed Assistant Director of Medical Services to the 16th (Irish) Division, and he served in this capacity during the battle of Fregenburg and in subsequent operations in the Croiselle sector of the front. In November 1917, when the retreat of the Italians necessitated the despatch of British and French troops to Italy, Colonel Cummins, owing to his previous experience of that country, was ordered to assume duty as Assistant Director of Medical Services in the base area, and, serving on the staff of General J. Strick, assisted in organising the medical establishments at Arquata, Genoa, and Bordighera. Early in April 1918, on the recall of Sir William Leishman from

France to the War Office, Colonel Cummins was summoned once more to General Headquarters in France, and assumed duty as Adviser in Pathology to the British Expeditionary Force. In this capacity he was charged with the organisation of army pathological laboratories throughout the force, and also acted as liaison officer with the American Red Cross Research Society. A great deal of work also fell to his share in connection, first, with the organisation of research on gas gangrene and bacillary dysentery, and, later, on influenza during the summer and autumn epidemics; and he continued to carry out his duties in this direction until his recall to England in April 1919.

## GENERAL SIR ARTHUR WILLIAM CURRIE, G.C.M.G., K.C.B., LL.D., Principal, M'Gill University, Montreal, P.Q., Canada

Sir Arthur Currie began his military career by joining the 5th Regiment, Canadian Garrison Artillery (Active Militia of Canada), as a gunner, in the early months of 1897; received his commission in this regiment in 1900, passing through all ranks until he was given the command of the regiment, September 1909. He held this command until November 1913, when he left the regiment and assisted in the formation of the 50th Regiment, Gordon Highlanders of Canada. During the time he was in command of the 5th Regiment it attained a very high standard of efficiency, winning in 1912 and 1913 all the first and second prizes in garrison artillery competitions conducted under the auspices of the Dominion Artillery Association.

On the outbreak of the war General Currie volunteered for overseas service, and was offered the command of an infantry brigade. On the formation of the 1st Canadian Division at Valcartier he was given command of the 2nd Canadian Infantry Brigade, which at that time comprised the 5th Battalion, recruited principally in Saskatchewan; the 6th Battalion, from Manitoba; the 7th Battalion, from British Columbia; and the 8th Battalion, from Winnipeg and surrounding districts. Before the Brigade crossed to France in February 1915, the 10th Battalion, composed principally of men from Manitoba and Alberta, was substituted for the 6th. He was promoted to the rank of Colonel in January 1915, and to Brigadier-General in March 1915. This Brigade took part with the 1st Canadian Division in the battle of Ypres, April 1915, the first occasion on which the Germans used poison gas. For his work in connection with this battle General Currie was awarded the C.B. by His Majesty the King, and the Légion d'Honneur, Commandeur, by the President of the French Republic.

He commanded his Brigade through the battles of Festubert and Givenchy, and succeeded General Alderson in the command of the 1st Canadian Division in September 1915. He remained in command of the 1st Division until June 1917, taking part in the battles of Mont Sorrel in June 1916, the Somme in September and October 1916, Vimy and Arleux in April 1917, and Fresnoy, 3rd May 1917. On 8th June 1917 General Byng was promoted to the command of the Third British Army, leaving vacant the position to command the Canadian Corps, and it was the splendid work of the 1st Canadian Division during those battles under General Currie that won for him the promotion to the command of the Canadian Corps. He remained in command until it was broken up by demobilisation on the close of the war. During these two years the Corps took part in all the principal battles of the British Army, and enjoyed the reputation of never failing to take its objective, never losing a gun, and of never being driven from an inch of ground once consolidated. The principal battles fought during General Currie's tenure of command of the Corps were Hill 70, in August 1917 ; Passchendale, October and November 1917 ; Amiens, 8th August to 22nd August 1917 ; Arras, 26th August to 2nd September 1918 ; Cambrai, 27th September to 12th October 1918 ; Valenciennes, 1st November 1918 ; Mons, 11th November 1918. It was the battle of Amiens which initiated the British offensive in 1917, an offensive which did not close until the enemy admitted defeat (General Ludendorff in his writings has declared 8th August to be the black day for the German Army). The battle of Arras was the one in which the Hindenburg Line was first definitely pierced and broken, the final system of that line being the Quéant-Drocourt Switch, which was broken through on 2nd September 1918. The battle of Cambrai broke through the last German defences, and after it their retreat became continuous and disorderly.

After the Armistice two divisions of the Canadian Corps were sent to form part of the British force holding the bridge-head, and during December 1918 and January 1919 General Currie commanded this force, with headquarters at Bonn, Germany. In June 1917 General Currie was awarded the K.C.M.G., which honour of knighthood was conferred by His Majesty the King in the old ruined town of Albert. In November 1917 the French awarded him a Croix de Guerre with palms, and the Belgians conferred the Grand Officier de l'Ordre de la Couronne and the Belgian Croix de Guerre. In January 1918 he was awarded the K.C.B., which order was conferred by His Majesty the King at the old Red Château in Villers-Bretonneux. In January 1919 he received the G.C.M.G. and the American Distinguished Service Medal. Mentioned in despatches nine times. In 1919 the University of Cambridge conferred the honorary degree of LL.D.

The honorary degree of LL.D. has been conferred by Acadia University, Wolfville, N.S.; M'Gill University, Montreal; Toronto University, Toronto. On his return to Canada he was promoted to the rank of General, and accepted the position of Inspector-General and Military Counsellor, Department of Militia and Defence, which he held until 31st August 1920, when he accepted the Principalship of M'Gill University.

## BRIGADIER-GENERAL THE HON. A. E. DALZELL, C.B.,
Coglan House, Longhope, Gloucester

IMMEDIATELY on the outbreak of war Brigadier-General Dalzell applied himself to raising the 13th Service Battalion of the Cheshire Regiment, which he commanded until January 1915, when he was appointed to the command of the 207th Brigade, 69th Division. This appointment he held for over eighteen months, during which time he sent many fully trained men to reinforce units in France.

In July 1916, in company with many other senior officers, he was (though passed as medically fit for service in the field) retired on account of age, and joined the National Service movement, on which he was employed until May 1917, when he was ordered to France. On his arrival in that country he served with the 1st Army until June 1918, when he was transferred to the 4th Army, and given command of the Amiens Administrative Area, which embraced almost 800 square miles. This appointment Brigadier-General Dalzell retained until Christmas 1918, when, the Armistice having been signed, his services were no longer required, and he returned to England.

## SIR WILLIAM H. DAVISON, K.B.E., D.L., M.P.,
14 Kensington Park Gardens, London, W. 11

SIR WILLIAM DAVISON was created a Knight Commander of the Order of the British Empire for services rendered by him to the country during the war. He held office as Mayor of the Royal Borough of Kensington throughout the war period from 1913 to 1919, and represents South Kensington in Parliament. He is also a D.L. and J.P. for the County of London. Immediately upon the declaration of war he established a recruiting office at the Kensington Town Hall, where an active campaign was organised to raise the local Territorial Battalion, the 13th Kensingtons, to its full strength. No sooner was this achieved than he obtained permission from the War Office to recruit for a second battalion, and in three days this also was at full strength.

Sir William then informed the War Office that he would be pleased to respond to Lord Kitchener's appeal for men by personally accepting the responsibility for recruiting, training, and equipping a Service Battalion for the New Army, and, on the acceptance of this offer, the 22nd (Service) Battalion Royal Fusiliers (Kensington) was raised by him in September 1914. The battalion was trained in a camp which Sir William built for them at Horsham in Sussex, and in July 1915 he finally handed the battalion over to the War Office fully trained, equipped, and ready for active service. He himself had purchased the whole of the necessary clothing and equipment, and to his judgment had been allotted the responsibility of selecting the Colonel and other commissioned ranks. Circumstances proved that the confidence of the War Office had not been misplaced in Sir William, as the honours gained by the 22nd Royal Fusiliers exceeded three figures, and included one Victoria Cross, three D.S.O.'s, fifteen M.C.'s, fourteen D.C.M.'s, and sixty-six M.M.'s.

Sir William also took a leading part in the War Savings and National Economy movements, and held numerous responsible positions, including Honorary Commandant of the Kensington Volunteer Battalion and Chairman of the Kensington Division of the British Red Cross Society, which equipped and maintained a first-line Red Cross hospital of 160 beds, in which over 4500 wounded men were treated. He was also President of the Kensington War Hospital Supply Depot, which during the war supplied appliances, dressings, and garments for the wounded of a value considerably exceeding £300,000.

SIR STEPHEN DEMETRIADI, K.B.E.,
89 Cadogan Gardens, London, S.W.3

THE outbreak of war found Sir Stephen Demetriadi in India in the interests of Messrs Ralli Brothers, with which firm he is intimately connected. He was able at this time to associate himself with local movements having as their object the successful prosecution of the war or the alleviation of hardship. By the result of a heat-stroke he was compelled to return to England, and whilst still far from convalescent joined, in 1916, the Naval and Military War Pensions, etc., Statutory Committee, where he was soon prevailed upon to take charge of the branch dealing with disabled sailors and soldiers. Sir Stephen's business methods were appreciated by the Ministry of Pensions, which absorbed the Statutory Committee, and in January 1919 he was offered and accepted the important post of Director of Z Branch, in charge of awards of pensions to men demobilised to Class Z who had claimed to be disabled as the result of war service. It may be recollected that the policy of the War Office shortly after the Armistice was to demobilise men and not to discharge them, the intention being that men so demobilised should be at the service of the country at a time of future emergency. This policy was subsequently reversed, and all men demobilised to Class Z were ultimately discharged from the service. It will be seen, however, that the men who might make claims for pensions upon demobilisation to Class Z at one time included practically all voluntarily enlisted or conscripted men serving at the time of the Armistice. Any of these men who upon demobilisation considered that they were entitled to pension for some partial disablement were afforded facilities to put in a claim, which ultimately came for decision to Z Branch of the Ministry. On taking charge of this branch, Sir Stephen found that the outstanding claims were exceedingly numerous, and, what was more serious, that they were increasing at an alarming rate. Indeed, the rush of work consequent upon the fact that the War Office was at this time demobilising men at an unprecedented rate threatened entirely to overwhelm the existing machinery of the Department. Moreover, a great and increasing number of men were entitled to pensions which they could not secure. A serious view of the matter was taken by the Government, who were fully alive to the fact that the situation, if permitted to continue, might have the most serious consequences. Sir Stephen grappled with the matter by introducing new methods in all directions, and at the end of April the situation, which had appeared so hopeless in the preceding January, was well in hand. Before returning to Messrs Ralli Brothers to resume his work in the City, Sir Stephen was accorded the unusual

compliment of a reference in the House of Commons, Sir Lamington Worthington Evans making the following statement in debate on 31st July 1919 :—

"In January last, I found that sufficient provision had not been made to deal with the claims of the Z men, so I established the Z Branch as an emergency branch to deal with these cases only. It was organised and directed by Mr Demetriadi, a business man of great ability, and but for his untiring efforts and for the excellent work of the staff under his direction there would have been serious delay in dealing with the 385,000 cases received. All through February and March the arrears increased, but by April the branch was dealing with more claims than it received, arrears were reduced, and by the middle of June all arrears had disappeared. The greatest number of awards made in any one week was 35,800, a really remarkable performance when it is remembered that each claim requires separate and detailed investigation and a decision on the merits."

It may be added that early in 1920 Sir Stephen embodied his views upon Civil Service methods in a small book, which, under the title *Inside a Government Office*, was privately circulated amongst friends and interested parties. To Sir Stephen, an economical and efficient Civil Service is something more than an ideal. He is convinced that the all-important question of Civil Service reform must shortly take a prominent place in the programme of national reconstruction—a view which is being adopted by a steadily increasing number of prominent men.

Sir Stephen was created a Knight of the British Empire early in 1920.

## LADY DENMAN, C.B.E., Balcombe Place, Sussex

LADY DENMAN'S name will always be associated with the work of the National Federation of Women's Institutes, which has done so much to improve village life.

The Agricultural Organisation Society decided in 1915 to press forward the organisation of these institutes on the general lines they had been worked on with such success in Canada for over twenty years. The efforts made were so satisfactory that in 1916 over forty such institutes had been formed in this country, and Lady Denman was appointed Chairman of the central organisation. The primary objects of these institutes were to improve the conditions of village life by stimulating interest generally in agriculture, developing co-operative enterprises, encouraging home and local industries, studying home economies, and providing centres for social and educational intercourse and all local activities.

Their constitution is purely democratic, the election of the committee and all officers being by ballot.

The stimulus which these institutes gave to agriculture in its various branches was soon recognised officially, and their subsequent organisation was undertaken by the Board of Agriculture, operating through the Women's Branch, with the result that Lady Denman was appointed Assistant Director to the Board of Agriculture in 1917.

The work went forward rapidly. The Women's War Agricultural Committees in all the counties of England and Wales, whose work hitherto had been primarily that of organising the Women's Land Army and Part-time Land Workers, were anxious to co-operate in the formation of Women's Institutes, and by 1918 no fewer than six hundred had been established. So great was the demand for these that the regular organisers appointed by the Board of Agriculture were unable to cope with the work, and schools were organised to train voluntary county organisers, who, on completion of their training, were officially authorised to form institutes wherever needed.

During the period of food shortage Women's Institutes urged upon their members the necessity of devoting their attention to food production, and the success which attended their efforts assisted very materially to ease a situation which had become acute. Apart from the working of allotments and the actual production of foodstuffs, much valuable work was done by preserving and bottling fruit and vegetables. Lectures and instruction were given in every institute on poultry, rabbit, and goat keeping, and as economic and productive factors the results were of enormous value. Instruction was also provided in the making of baskets for agricultural purposes, the shortage of which had become acute, with the result that an adequate supply of these necessary articles was maintained.

The Board of Agriculture, taking the broad view of the value of self-government, eventually handed over the entire organisation of the movement to the members of the institutes themselves, and recommended that the necessary financial support should be furnished by the Government. This was provided, and Lady Denman was again elected Chairman under the new constitution. The strength of the movement may be gauged from the fact that in December 1919 there were 1500 Womens' Institutes in being, representing a total membership of over 80,000.

## THE RIGHT HON. LORD DESBOROUGH, K.C.V.O.,
Taplow Court, Taplow, Bucks

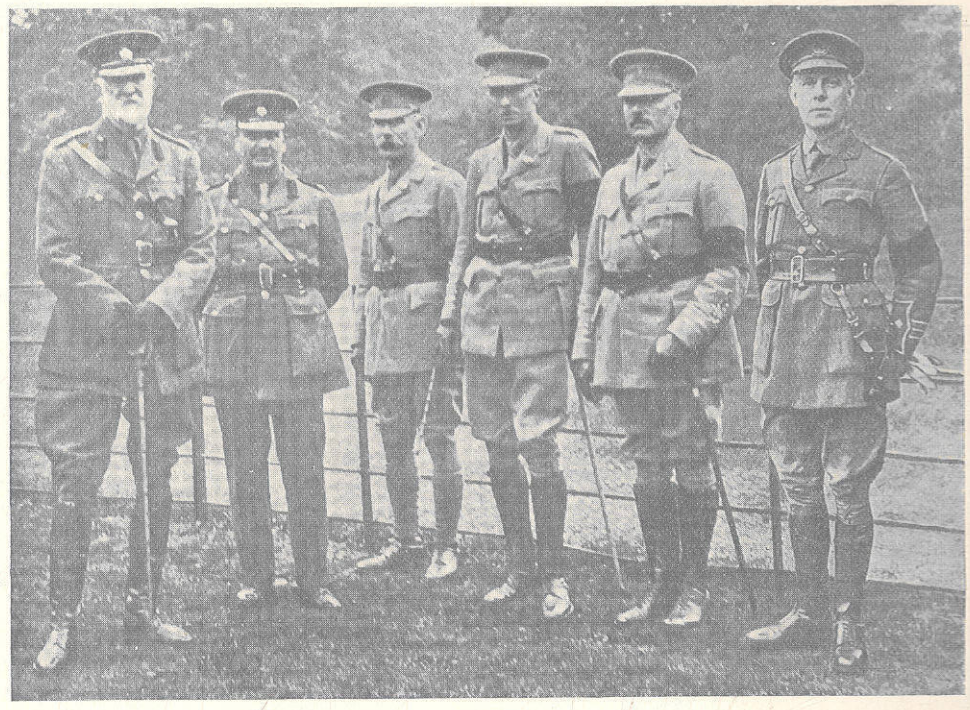
THE services rendered to the country by Lord Desborough during the period of the war covered almost every possible sphere, and were of an extremely valuable nature. Within a few days of the commencement of hostilities he became President of the Volunteer movement, and in this capacity addressed numerous meetings in most of the large towns throughout the country. So successful was this movement that no fewer than 1,000,000 partially trained men enrolled as volunteers for the Army, in addition to a further very large force of "veterans," who released large numbers of younger regular soldiers for active service abroad. A subsidiary branch of this movement was the organisation of the Motor Volunteers, who rendered invaluable service in many and varied capacities. Whilst still engaged in this work he was entrusted by the Thames Conservancy with making arrangements for guarding railway bridges and the intakes of the Metropolitan Water Board, and was twice thanked by the Army Council.

In 1915 Lord Desborough was appointed the representative of the British Minister of Munitions, Mr Lloyd George, in France, acting as the head of a delegation appointed to secure the return to England of skilled munition workers who were serving in the Army. The result of the operations of this mission was highly successful, in that it relieved the great shortage of skilled men in England, and effected a substantial increase in the output of munitions at a very vital period. Lord Desborough was also President of the London Chamber of Commerce, which rendered invaluable advice to the trading community with regard to numerous Orders in Council issued for the restriction of certain classes of trade, and Chairman of the Freshwater Fish Committee appointed by the Board of Trade to inquire into the amount of food which could be obtained from this source in the event of national famine. In addition to these numerous appointments, he was employed in rationing the exports and imports of tea from France, and acted as President of the Imperial Council of Commerce.

Lord Desborough was on the committee which organised three hostels for nurses in London, and a large hospital at Southend; and he had his private residence, Taplow Court, made into a home of rest for war nurses, and some 1500 were entertained there, drawn from many parts of the Empire.

SIR GEORGE DIXON, BART., D.L., Astle Hall, Chelford, Cheshire

ON the outbreak of war, and the national call for recruits, the whole of the various districts of Cheshire responded in the most patriotic manner to the military needs of the country. So great was the enthusiasm aroused that within twenty hours of the declaration of war some fifty-three residents of Saughall and Mollington



Col. Sir George Dixon, Bart., Commandant. | Lt.-Col. Sir A. J. Sykes, Bart., M.P. | Capt. Storey. | Mr Henry Hollingdrake. | Mr Tom Stott. | Lt.-Col. Chaloner, County Adjutant.

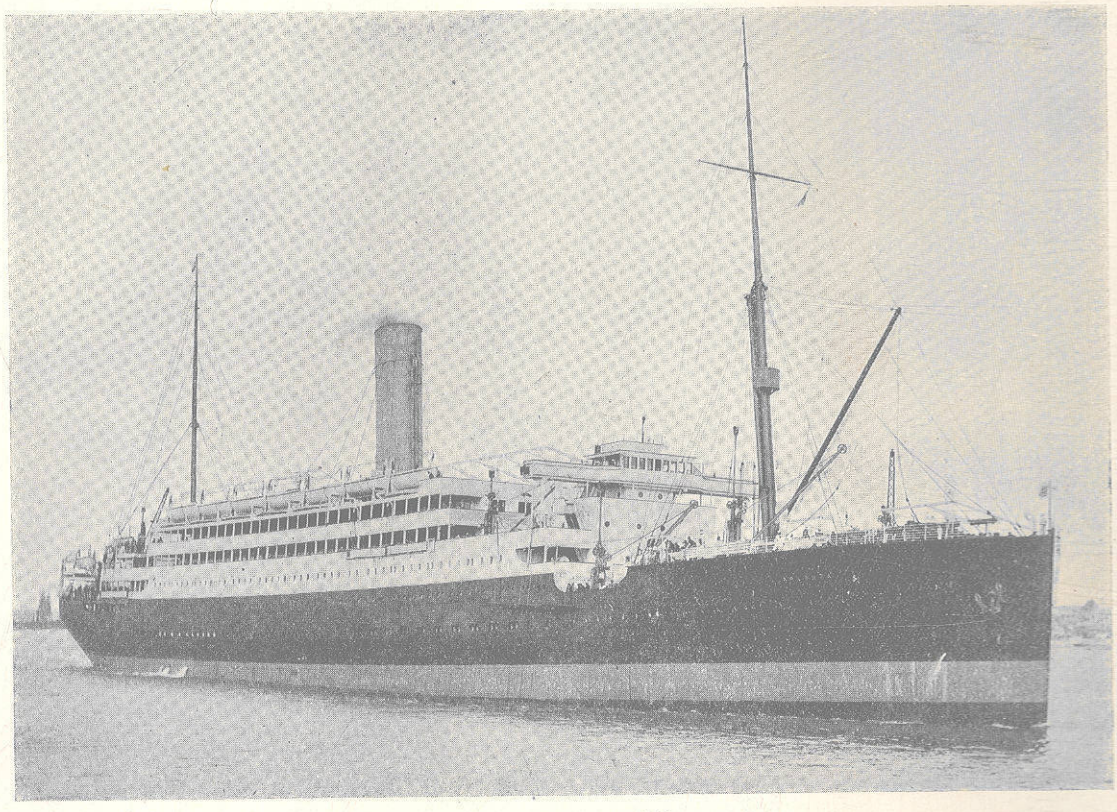
had enrolled themselves, an example which was very rapidly followed by others. By the end of 1914 no less than thirty corps had been established. They had at that time, however, received no official recognition, nor did they possess at their head a man with sufficient military experience and organising power to create an efficient fighting force. At the beginning of 1915 Colonel George Dixon, who had himself seen thirteen years' service in the Regulars, and a similar period in the Volunteer Force, and had also been a civilian administrator on the County Council and Chairman of the same for twenty-five years, summoned a meeting of prominent residents in the county for the purpose of drafting a scheme for the formation of a County Association and Training Corps, and for raising

and administering a County Volunteer Regiment. This scheme was prepared in collaboration with Colonel Alan J. Sykes, M.P. for the Knutsford Division, and it was unanimously approved. Colonel Dixon was appointed Chairman of the County Committee and regimental Commandant; the Duke of Westminster, as Lord-Lieutenant, acting as President of the Committee and the regiment. Under the direction of Colonel Dixon, the whole work of recruiting and organisation was carried out at offices in Stockport provided by Major W. Chaloner. By May 1915 approximately 6000 men had been enrolled, and five months later the regimental strength approached 10,000 men. An appeal was also made to the motor community, by which the registration for military purposes of 155 cars, lorries, etc., was effected. Up to the end of March 1916 the total number of registered cars, etc., on the strength amounted to 457, these vehicles having traversed 96,211 miles and transported over 18,500 men. The War Office had notified, in November 1914, that no arms, ammunition, or clothing would be supplied from public sources, nor would financial assistance be rendered. An appeal was therefore made to the whole of the county, with the result that up to the end of March 1916 contributions had been received to the extent of over £35,000, of which £20,000 was spent on clothing and equipment. The training of the corps was carried out by Colonel Dixon, in conjunction with Colonel Alan J. Sykes and Major Chaloner, who were able to secure from the county a number of men possessing a knowledge of drill. For officers, courses of instruction were provided at regimental and battalion headquarters, and permission was obtained to attend the Manchester University O.T.C. courses. In February 1916 the Volunteer Act was put into force, and the Cheshire Volunteer Regiment was thus given a military status and accepted by the Crown. By this action the efforts of Colonel Dixon received their official recognition. The services rendered by the regiment included the provision of guards for vulnerable points and lines of communication, while three special-service companies served for three months on the East Coast in 1918. The regiment also provided large numbers of efficient volunteers for the Regular Army.

Apart from this important work, Colonel Dixon acted as Chairman of the County Council, of the War Relief Fund, which raised approximately £40,000 for the Prince of Wales's Fund, Chairman of the County War Agricultural Committee and a member of its Executive, Chairman of the Main Roads and Bridges Committee and of the standing Joint Committee. He was also a member of the Demobilisation Committee of the British Red Cross and Order of St John, of Cheshire, and is still a member of the same Committee. For the valuable services rendered by Colonel Dixon he was created a Baronet in April 1918.

## CAPTAIN SIR CHARLES E. DOWN, K.B.E., Royal Mail Steam Packet Co., 18 Moorgate Street, E.C. 2

THE honour conferred on Captain Down of the Royal Mail Steam Packet Company, in recognition of his distinguished service and great courage during the war, is in itself a recognition of the high qualities, in the face of most trying and



The R.M.S.P. liner *Arlanza*.

exacting conditions, always associated with those who served their country in the mercantile marine.

Sir Charles first went to sea in 1876, and has had a brilliant career, obtaining his first command in 1896, only twenty years after his initial apprenticeship, and continuing for the next twenty-one years to command various important ships in the Company's service. When war broke out he was on the retired list, with the rank of Lieut.-Commander, and, on being called up to serve, he was given command of the R.M.S.P. liner *Arlanza*, which was captured by the German cruiser *Kaiser Wilhelm der Grosse* south of the Canary Islands. The *Arlanza*

had on board a large complement of women and children, and it is pleasing to be able to record that in view of that fact their German captors, exhibiting an unusual and indeed unique spirit of consideration and humane treatment, permitted the vessel to proceed on its voyage.

The *Kaiser Wilhelm der Grosse* was subsequently sunk by H.M.S. *Highflyer* off the west coast of Africa. After many other varied and dangerous adventures, Captain Sir Charles E. Down was, in 1917, appointed the Company's Marine Superintendent in London, which important post he still holds.

## THE LATE BARON DOWNHAM OF FULHAM
### (William Hayes Fisher)

The late Lord Downham had for years taken a very keen interest in the people, and on the outbreak of war engaged in services having as their object the assistance and relief of those who had been left by men joining the colours in such large numbers. In 1915 he became Parliamentary Secretary to the Local Government Board, a position he occupied until 1917; in the latter year he was appointed President of the Board, and occupied this position till the autumn of 1918. It was in this capacity that he set in motion many schemes for the prevention and relief of distress among his own people, as well as among Belgian refugees who had been driven to this country by the invasion of the German armies in 1914. His sympathies and assistance were also extended to destitute aliens, and to British-born wives of interned aliens. He also occupied the position of Chairman of the Military Service (Civil Liabilities) Committee, the objects of this Committee being to assist all men, single as well as married, who joined the forces on or after the 4th August 1914, and also to give assistance in regard to the financial responsibilities of these men. In addition to these beneficent services, Lord Downham took a great interest in, and organised relief for, the professional classes who had been practically deprived of their livelihood as the result of the war. The relief given to the latter from 1915 to 1919 amounted to over £92,000. Similar measures were taken in regard to certain East Coast towns which had not only suffered from enemy bombardments, but also had been deprived of their revenue in consequence of the war. The grants made in this direction for the period referred to amounted to £480,000, while local authorities in East Coast watering-places were granted a sum of £290,000 between the years 1916–1919. The reception camps which were organised by the Government, mainly

for the Belgian refugees, also came under the control of the Local Government Board, and payments were made for the maintenance of these camps to the extent of close on £3,000,000. When the Armistice was declared the number of refugees to be dealt with in regard to repatriation totalled 125,000, nearly all Belgians, and this work was undertaken by the Local Government Board, free passage being given to the Belgian refugees. There can be little doubt that no one had the interests and welfare of the people at heart more than Lord Downham, and it was probably due to the vast amount of time and energy he expended in this work that his regrettable death occurred.

### G. STRAKER FALCK EDWARDS, Resident Engineer, Smith's Dock Co., Ltd., South Shields

THE operations necessitated on the sea both by the Navy and the mercantile marine naturally involved a vast amount of construction and repair work, which, as time went on, taxed the resources of our shipbuilders and ship repairers to the uttermost. When submarine warfare became acute, the demands made upon the ship-repairing firms increased very extensively. The great experience gained by Mr Edwards in this direction suggested to Sir Eric Geddes, then Controller of the Admiralty, the idea of co-ordinating the dry-dock and ship-repairing facilities of the United Kingdom, in order to meet the impending shortage of tonnage. To secure the best results under the great emergency, he appointed Mr Edwards as Director of Ship Repairs, and imposed on him the intricate and arduous task of organising the new department. The position occupied by Mr Edwards prior to the war—as Director of Smith's Dock Co., Ltd., of the Tyne and the Tees, the largest firm of dry-dock owners and ship repairers in the world—and the regard with which he was held by the heads of similar concerns, enabled him to secure the co-operation of all the dry-dock owners and ship repairers in the kingdom. Under his direction the work carried out by the department was a conspicuous success, not the least feature in this being that it was run on commercial lines, and with an entire absence of "red tape." When Sir Eric Geddes became First Lord of the Admiralty, he paid a high compliment in Parliament to the work which this new department had carried out, and Mr Edwards was offered a C.B.E. in 1917, which, however, he declined.

In 1918 the Prime Minister offered him the award of the K.B.E., which offer was renewed at a later date, and both of which Mr Edwards declined to

accept, preferring the satisfaction of achievement to any official reward for his efforts in the great and vital work which his department carried out during the most momentous years of the nation's history. The only testimony accepted by Mr Edwards he received from the ship repairers of the kingdom, who entertained him at a banquet, at which an address and a handsome piece of plate were presented to him.

## THE EARL OF EGMONT, Ringwood, Hants

LORD EGMONT'S health debarring him from any particularly wide activities, he decided to apply himself to war work in the vicinity of his residence at Ringwood, Hants. He therefore accepted the position of President of a Volunteer Training Corps, which he assisted in raising, and helped materially in the formation of a local rifle club.

He was Chairman of the Ringwood Rural District Council, the R.D.C. Highway Committee, the Fire Brigade Committee, the Public Health Committee, the Water Committee, and the Board of Guardians. He also undertook the duties of chairman to the numerous committees set up by the exigencies of war, including the local Tribunals, War Agricultural Committee, War Savings Committee, Food Economy Committee, Coal Control Committee, and the Food Control Committee.

Despite the very great demands made on Lord Egmont's time by this work, he was also a member of the Union House Committee and the Union Assessment Committee, in addition to acting as Justice of the Peace for the Petty Sessional Division of Ringwood, in the county of Southampton.

## R. C. FARMER, D.Sc., Ph.D.

WHEN the Explosives Supply Department was inaugurated under Lord Moulton, numerous chemical problems connected with the manufacture of explosives pressed for attention, and the need was felt for a closer liaison between the Explosives Supply Department and the Research Department at Woolwich. Accordingly, Dr Farmer, who had had many years' experience as Chief Assistant

Research Chemist at Woolwich, was transferred to the Explosives Department as Chemical Adviser to Lord Moulton.

In the manufacture of explosives the British Government had, previous to the war, confined its attention to propellants, and had manufactured no high explosives for shells (except tetryl). Apart from the manufacture of picric acid by a few private firms, the high-explosives industry was practically new to this country. In particular, the manufacture of T.N.T. was in a very primitive condition; and thus the problem facing the Department of Explosives Supply was to build up from the beginning a new chemical industry, involving the development of new methods, under conditions which required great caution on account of the dangerous nature of the materials. In all this work Dr Farmer took a prominent part, first in the research work on the manufacture of T.N.T., then in the inspection of numerous factories in course of construction. Innumerable inventions and proposals had to be dealt with by him as adviser to Lord Moulton; all conceivable alternative syntheses required investigation; safety precautions, specifications, analytical methods, the disposal of by-products, and all the problems inseparable from pioneer work in new industries claimed his attention.

As the manufacturing processes gradually became standardised and the output increased, the need for economy in working became ever more pressing as the demands for high explosives strained the resources of the country to the utmost. This led to numerous researches, under the guidance of Dr Farmer, with the object of increasing the yields of the manufacturing processes. Researches on the methods of purification were as vitally important as the purity of the explosives produced. In these connections, various universities and technical colleges loyally lent their assistance to the Department of Explosives Supply, and thus a very large organised fund of chemical investigation was available at practically no expense to the country. The value of this source of research work was most strongly felt when the Department of Explosives Supply undertook the manufacture of poison gases, a new field which presented a host of fresh and intricate problems.

Dr Farmer represented the Department of Explosives Supply at the Ordnance Committee meetings (together with Mr Humphrey), and served on the Chemical Committee of the Munitions Inventions Department. He was also a member of the Nitrogen Products Committee, and was in frequent consultation with the various other war departments.

Letters of thanks from the directors of several departments and from Mr Winston Churchill testified to the wide-spread appreciation of Dr Farmer's services.

FRANK FEHR, 27 Leadenhall Street, E.C. 3

In the early months of the war there was necessarily a very great lack of control in regard to supplies of various descriptions getting to Germany, and it was not until late in 1915 that stringent steps were taken to effect a stoppage of this unwise proceeding. Trade with Germany had been on such an enormous scale and was of such a varied description that it was necessary to obtain the co-operation of experts to carry out this work. In August 1915 Mr Fehr was asked by the War Trade Department to ascertain what steps could be taken to prevent the large export trade which was going on in oils and fats from Holland into Germany. In May and June of that year the quantity of these products passing into Germany attained a very high figure, and as these were essential items for food and the manufacture of explosives, Mr Fehr was requested to negotiate with the Overseas Trust, and he arranged that they should not grant licences to any merchants in Holland unless they were prepared to place all their goods under control. The action taken was immediately effective, and by the end of the year the transportation of these products into Germany had been practically discontinued. In February of the following year Mr Fehr was appointed by the Oil and Tallow Trades Association, of which he was Vice-President, as Adviser to the Controller of the Oils and Fats Department of the Propellants Branch of the Ministry of Munitions. Early in 1917 a new system of control of oils and fats was proposed which was thought by Mr Fehr to be unworkable, and eventually the scheme was relinquished. In October of the same year he was invited by Lord Rhondda to accept the position of Assistant Director of Oils and Oilseed Supply at the Ministry of Food. This department handled the purchase and the importation of these products from abroad, and, owing to his great technical knowledge, Mr Fehr was enabled to give continual advice on the various matters connected with these. In August 1918 Mr Fehr was despatched to the United States to arrange for the purchase of oils and fats, and also to carry out negotiations particularly in regard to securing supplies of linseed and castor seed. At the end of this work in November he returned to England and proceeded direct to the Paris Conference, participating in the negotiations in regard to the continuance of the control of oils and fats. At this Conference it was decided that international control of these materials should cease. In March 1919 he joined Admiral Wemyss's Conference in Brussels, and it was at this meeting that the decision was arrived at to supply the Germans with a certain amount of food. Subsequently he was sent to Holland to negotiate the sale of various oils and fats to

Germany. Although, in June 1919, Mr Fehr's active duties as Assistant Director of the Ministry of Food ceased, he was despatched to Egypt in July to ascertain what steps should be taken regarding the control of cotton-seed and cotton-cake.

He discussed the matter fully with Lord Allenby, and came to the conclusion that it was inadvisable to continue the control of Egyptian cotton-seed and cotton-cake, as such control would have tended to create considerable unrest in Egypt. He returned to London and reported accordingly to the Food Control. At the present time he is a member of the Oils and Fats Sub-Committee, appointed by the Standing Committee on Trusts under the Profiteering Act, while he still remains a member of the Oils and Fats Executive Committee of the Ministry of Food. In 1919 Mr Fehr was elected President of the London Oil and Tallow Trades Association. He is senior partner of the firm of Thornett & Fehr, one of the largest importing and exporting concerns in this country. The C.B.E. was conferred upon him for his valuable work at the Ministry of Food.

## W. TOWNLEY MACARTNEY FILGATE, Dublin

In 1915 Mr Macartney-Filgate was appointed Controller of Equipment and Aliment for War Office Contracts, including output of Army clothing, in the Ministry of Munitions, Ireland. In 1916 he took over the control of wool rationing, to which was added, in the following year, the control of standard cloth, clothing, and blankets. In 1917 he was engaged in the provision of hides and leather, and in the supervision of tanning; and in 1918 he was asked to supervise the arrangements for the provision of war-time boots. These various services naturally involved a vast amount of organisation and administrative work, and included the scheduling of factories, with possible output, the grouping of firms, and the calling for tenders for the various products required. The work in connection with wool rationing involved dealing with supplies required by all woollen and worsted, hosiery, poplin, and blanket factories, as well as by hand-loom weavers in the western and southern districts of Ireland for civilian purposes. The manufacture of standard cloth entailed a selection of patterns from all mills under a special technical officer, the cloth being passed to clothing factories for civilian output, and thence to wholesale warehousemen, and through them to retailers. A fixed price for these goods was laid down by the Director of Wool Textile Production, Sir Charles Sykes K.B.E. A similar method was adopted in connection with standard blankets

# IRELAND

## IRELAND'S CONTRIBUTION BY MANUFACTURE TO THE EMPIRE'S WAR REQUIREMENTS.

CENTRES OF CONTROL.

- ● ARMY CONTRACTS DEPARTMENT (EXCEPTING NORTHERN LINEN AREA.)
- ▲ MINISTRY OF MUNITIONS. RAW MATERIALS DEPARTMENT (WOOL RATIONING. HIDES TANNING AND LEATHER.).
- ■ Dº DEPARTMENT WOOL TEXTILE PRODUCTION (STANDARD CLOTH, CLOTHING BLANKETS, WAR TIME BOOTS.)
- ✱ ADMINISTRATION NORTHERN LINEN AREA
- ◧ Dº NORTHERN MUNITIONS AREA
- ◐ Dº SOUTHERN MUNITIONS AREA
- ✱ LEATHER CONTROL WAREHOUSE
- ✕ STANDARD LINING WAREHOUSE
- ⬆ INSPECTORATE STANDARD BLANKETS & CLOTHING CONTROL
- ⬟ ADMINISTRATION WOOL RATIONING
- ◐ Dº WOOL PURCHASE
- ⬇ MUNITIONS INSPECTORATE

BUNCRANA
ARMY SHIRTS.

COLERAINE (B) LM
LINEN DUCK & DRILL
AEROPLANE CLOTH

(H) HM (L) LM
LONDONDERRY
HAVERSACKS. HOLDALLS, & BANDOLIERS
PANTS (COTTON)
ARMY CLOTHING
ARMY SHIRTS
CARDIGANS
VESTS & PANTS (WOOL)
GLOVES (WOOLLEN)
SOCKS ( " " )
FLANNEL BANDS

WAR TIME BOOTS. SHIPBUILDING & REPAIRING. ENGINEERING.
BISCUITS BACON. MUNITION SPIRIT. TAR (FOR MUNITIONS)

CLAUDY
PANTS (COTTON)
ARMY SHIRTS

UPPERLANDS
AEROPLANE CLOTH

LETTERKENNY (L)

DUNGLOW
GLOVES (WOOLLEN)

CONVOY
ARMY BLANKETS
MILITARY CLOTHS
STANDARD CLOTH

BALLYBOFEY
HAND-WOVEN TWEEDS

CLENTIES
GLOVES (WOOLLEN)
SOCKS ( " " )

STRABANE (L)
ARMY CLOTHING
ARMY SHIRTS

ARDARA
HAND-WOVEN TWEEDS

CASTLEDERG (PARAMOUNT)
ARMY BLANKETS
STANDARD CLOTH

RATHVIEW → MILITARY CLOTH

ARMY BOOTS
WAR TIME BOOTS

BALLYMENA (B) LM (V)
LINEN DUCK & DRILL
AEROPLANE CLOTH
DOWLAS. NAPKINS. TOWELS
STANDARD BLANKETS.
STANDARD CLOTH.
CANVAS
BEDDING & MATTRESSES

LARNE
AEROPLANE CLOTH. NAPKINS
DOWLAS. TOWELS
ARMY CLOTHING
STANDARD CLOTHING
CANVAS
CEMENT

KELLS (V)
ARMY BLANKETS.
MILITARY CLOTHS.

BELLAGHY
PANTS (COTTON)
ARMY SHIRTS.
CASTLE DAWSON
AEROPLANE CLOTH

RANDALSTOWN
LINEN DUCK & DRILL
AEROPLANE CLOTH.

ANTRIM
AEROPLANE CLOTH

CARRICKFERGUS
LINEN DUCK & DRILL
AEROPLANE CLOTH

WHITEABBEY
LINEN DUCK & DRILL
AERO. CLOTH. DOWLAS
WHITEHOUSE
AERO. CLOTH.

BELFAST
(B) (L) (M) (V) (W) (H) (M) (T) (L) (M) (V)

CRUMLIN (V)
ARMY BLANKETS.
MILITARY CLOTHS.
STANDARD CLOTH

NEWTOWNARDS
AEROPLANE CLOTH
CARDIGANS
VESTS & PANTS (WOOL)
SOCKS (WOOLLEN)
FLANNEL

LAMBEG
AEROPLANE CLOTH

LISBURN (V)
LINEN DUCK & DRILL.
AEROPLANE CLOTH.
DOWLAS.
LINEN THREAD.
GLOVES (WOOLLEN).
SOCKS.

NAPKINS. WAR TIME BOOTS
TOWELS. ARMY BOOTS
ROPE & TWINE.
RUBBERS (RUBBER)

HILLSBOROUGH

LINEN DUCK & DRILL
AEROPLANE CLOTH
DOWLAS

COOKSTOWN
LINEN DUCK & DRILL
AEROPLANE CLOTH
NAPKINS. TOWELS. ETC.
HARNESS & SADDLERY

OMAGH (HM)

DONAGHMORE
GLYCERINE.

COAL ISLAND

LINEN DUCK & DRILL
AEROPLANE CLOTH

CASTLECAULFIELD
LINEN DUCK & DRILL
AEROPLANE CLOTH.

DUNGANNON
LINEN DUCK & DRILL
AEROPLANE CLOTH
DOWLAS.
HANDKERCHIEFS
NAPKINS. TOWELS.

BALLYGAWLEY (V)
ARMY BLANKETS
SOCKS (WOOLLEN).

LURGAN
AEROPLANE CLOTH

WARINGSTOWN
AEROPLANE CLOTH

LINEN DUCK & DRILL
AEROPLANE CLOTH
DOWLAS

LINEN DUCK ← MOY
& DRILL
AERO. CLOTH
OIL CLOTHING.

BENBURB
AERO. CLOTH.

PORTADOWN (L) LM
LINEN DUCK & DRILL
AEROPLANE CLOTH
DOWLAS.
SOCKS (WOOL)
RUBBERS (WORK)
CANVAS

CLIFFORD
LINEN THREAD
LINEN DUCK & DRILL.

TANDRAGEE
AEROPLANE CLOTH

RICH HILL
FRUIT STONES

MILITARY CLOTHS ← CALEDON (V)
STANDARD CLOTH

ARMAGH
AEROPLANE CLOTH

COOMORE
AEROPLANE CLOTH

LAWRENCETOWN
LINEN DUCK & DRILL
AEROPLANE CLOTH

BANBRIDGE
LINEN DUCK & DRILL
AEROPLANE CLOTH
LINEN THREAD

ENNISKILLEN (L)

LISBELLAW (V)
ARMY BLANKETS
STANDARD BLANKETS

KEADY
LINEN DUCK & DRILL
AEROPLANE CLOTH

ANNSBOROUGH
AEROPLANE CLOTH.

BESSBROOK
LINEN PIECE GOODS
LINEN DUCK & DRILL
DOWLAS
RUBBERS (HORSE)
NAPKINS. TOWELS. ETC

NEWRY → (B) (L) (LM) (V)
AEROPLANE CLOTH
AMMUNITION BOXES

CLONES (HM) (L)

BELFAST
LINEN PIECE GOODS
LINEN DUCK & DRILL
AEROPLANE CLOTH
DOWLAS. NAPKINS. TOWELS. ETC
DUCK. KHAKI
HANDKERCHIEFS
LINEN THREAD
HAVERSACKS. HOLDALLS & BANDOLIERS
WEB EQUIPMENT
PANTS (COTTON).
COTTON WOOL (BANDAGES)
ARMY BLANKETS
ARMY CLOTHING.
STANDARD CLOTHING
MILITARY CLOTHS
HAND-WOVEN TWEEDS
ARMY SHIRTS.
VESTS & PANTS (WOOL)
GLOVES (WOOLLEN).
SOCKS ( " " ).
PUTTEES.
FLANNEL BANDS
CANVAS.
ROPE & TWINE.
BEDDING & MATTRESSES
ROOFING FELT.
WAR TIME BOOTS
ARMY BOOTS
HARNESS & SADDLERY
BELTING LEATHER
ARMY BOOT LEATHER

SHIPBUILDING AND REPAIRING.
ENGINEERING
SHELLS
SHELL PARTS
CAINES
BOMBS. GRENADES
AEROPLANES
VENTILATING FANS
AMMUNITION BOXES
BASKETS.
SECCOTINE.
MEDICAL & SURGICAL SUPPLIES
CANDLES.
GLYCERINE.
STONEWARE
BRUSHES.
TOBACCO & CIGARETTES
MUNITION SPIRIT
JAMS
FLOUR
BISCUITS
BEER
BACON
TAR (FOR MUNITIONS)
FRUIT STONES (FOR CHARCOAL.)

(B) (L) (LM) (V)
SLIGO
ARMY SHIRTS
SOCKS (WOOLLEN)
SHELL PARTS.
TAR (FOR MUNITIONS)

COLLOONEY (V)
CALCIUM OF CARBIDE

BALLINA (LM)

FOXFORD (V)
ARMY BLANKETS.
STANDARD BLANKETS

CASTLEBAR
BACON

WESTPORT (L) LM

DRUMSHAMBO (LM)

BOYLE (L)

CARRICK-ON-SHANNON (L)

BALLYCONNEL (LM)

CAVAN (L)

DUNDALK (L)
LINEN DUCK & DRILL
SHELLS
AMMUNITION BOXES (WOOD).
TOBACCO & CIGARETTES
BEER
MUNIT. UN SPIRIT

CASTLE BELLINGHAM
BEER

LONGFORD (L) (V)
SOCKS (WOOLLEN.)

KELLS (L)

DROGHEDA (B)
LINEN PIECE GOODS
LINEN DUCK & DRILL
AEROPLANE CLOTH
DOWLAS
TICKEN
NAPKINS. TOWELS. ETC.
AMMUNITION BOXES (WOOD)
OATMEAL

DULEEK (V)

NAVAN (V)
MILITARY CLOTHS
STANDARD CLOTH
PEGS PICKETING

BALBRIGGAN (V)
AEROPLANE CLOTH
TICKEN
SOCKS (WOOLLEN)

MULLINGAR (H) HM (F)

(L) (V)
ATHLONE
STANDARD BLANKETS
MILITARY CLOTHS.
STANDARD CLOTH

CLARA
JUTE BAGS

EDENDERRY
TRENCH TOOL HANDLES
CHAIRS.

TULLAMORE (LM)

(L) (V)
GALWAY → ARMY BLANKETS
MILITARY CLOTHS.
STANDARD CLOTH
SOCKS (WOOLLEN)
NATIONAL SHELL FACTORY
AMMUNITION BOXES (WOOD)

LUCAN (V)
MILITARY CLOTHS.
STANDARD CLOTH

DUBLIN (A) (B) (C) (D) (E) (F) (G) (H) (J) (K) (L) (M) (N) (P) (R) (S) (T) (V) (W)
(H) HM (F) (B) (W)
(L) LM (V)

DUBLIN
LINEN PIECE GOODS
LINEN DUCK & DRILL
AEROPLANE CLOTH
HANDKERCHIEFS
HAVERSACKS. HOLDALLS & BANDOLIERS.
TIES (OFFICERS).
PANTS (COTTON.)
ARMY CLOTHING
STANDARD CLOTHING
MILITARY CLOTHS
ARMY SHIRTS
GLOVES (WOOLLEN)

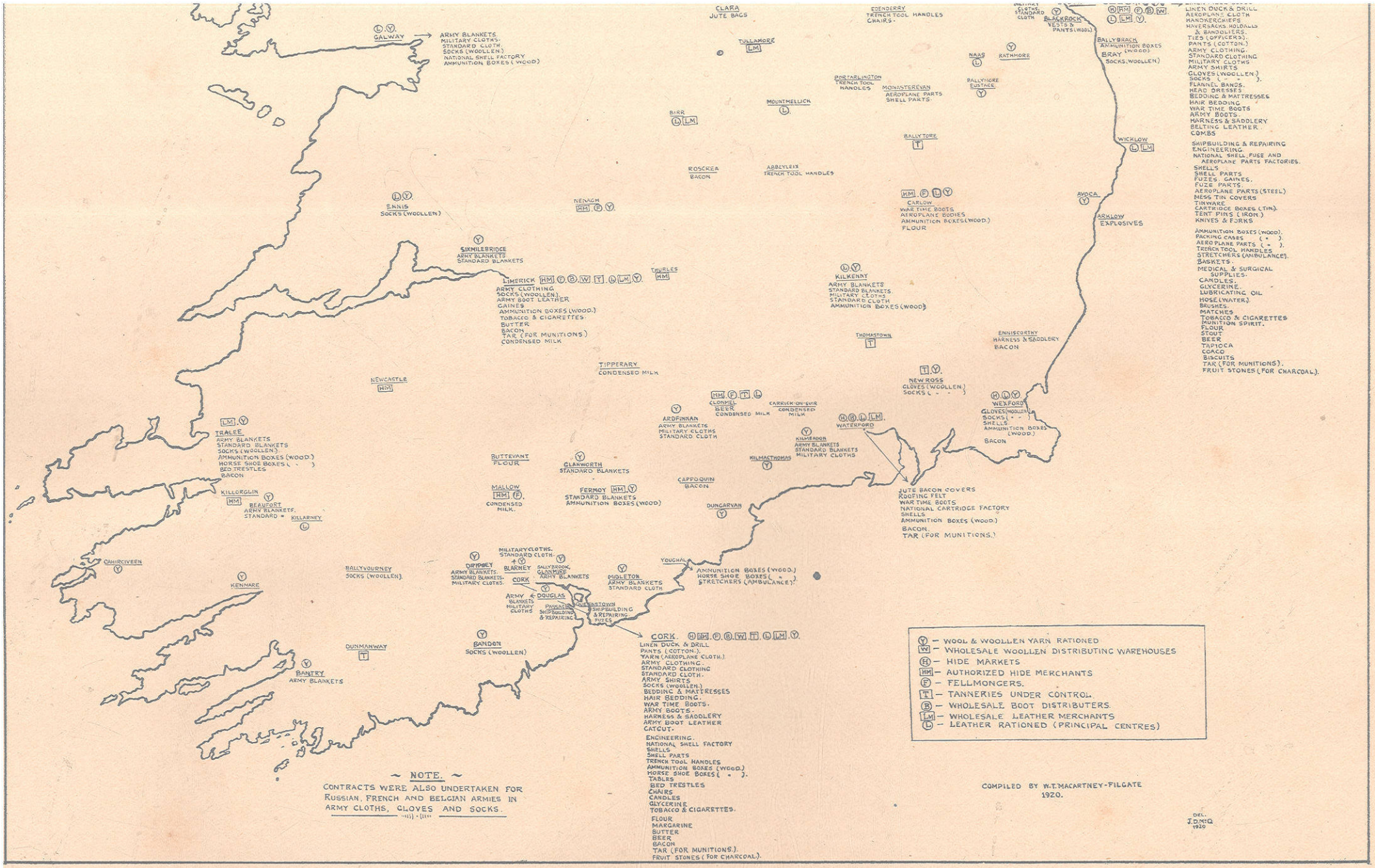
BLACKROCK (V)
VESTS & PANTS (WOOL)

BALLYBRACK
AMMUNITION BOXES (WOOD)

BRAY
SOCKS (WOOLLEN)

NAAS (L)

RATHMORE (V)




~ NOTE. ~

CONTRACTS WERE ALSO UNDERTAKEN FOR RUSSIAN, FRENCH AND BELGIAN ARMIES IN ARMY CLOTHS, GLOVES AND SOCKS.

COMPILED BY W.T.MACARTNEY-FILGATE
1920.

DEL.
J.D.M.Q
1920

Perhaps, however, the task which involved the greatest amount of expert knowledge, as well as of ability for organisation, was associated with the provision of supplies of hides and skins. These were collected from all sources, graded and classified, and issued to tanners in Ireland and Great Britain under a special technical officer, the prices being fixed from time to time by the Leather Controller, London, on behalf of the Director of Raw Materials, Sir Arthur Goldfinch, K.B.E. All leather and grindery supplies were distributed on permit throughout the whole country. Thus the supplies of raw materials remaining available for civilian purposes, which for a considerable period were limited, were spread over the whole area. A warehouse was necessitated, and established in Belfast under a special technical officer, who issued supplies from stock. The whole of the various trades were brought into one well-defined scheme, Mr Macartney-Filgate and those who co-operated with him surmounting the obstacles and creating a spirit among the firms which resulted in supplies going forward without delay. Each trade was dealt with through its association, and where no trade body existed one was formed, and advisory committees, composed of members selected by the associations, met from time to time in order to adjust matters to enable the best possible results to be attained. The volume of work done was carried out by a total administrative staff of thirty-two.

The map reproduced here indicates to what a large and varied extent Ireland contributed to the Empire's war-time requirements. Irrespective of the above organisation, branches of the service dealt with shipbuilding and repairing, the supply of aeroplane cloth and linens, and the output of shell and cartridge cases, etc. It must be borne in mind that, prior to the war, not a single shell case, cartridge case, fuse, or hand grenade had been produced, all workers having to be specially trained and factories equipped throughout. Further, the large proportion of cloth wherewith squadron after squadron of aeroplanes were equipped was manufactured in the North of Ireland. Another sphere of activity, though not included on the map, was of vast importance to Great Britain, viz. the organisation and supply of foodstuffs.

## THE FIRST AID NURSING YEOMANRY CORPS,
### 192 Earl's Court Road, London, S.W. 5

LESS than a week after the declaration of war in 1914, the First Aid Nursing Yeomanry Corps, which was originated in 1909, and which was a body of mounted nurses able to render first aid in the field and, if necessary, to nurse in the base hospitals, volunteered its services to the War Office. The offer, however, was

The First Aid Nursing Yeomanry in the field.

met with a refusal, and, in the light of subsequent events, it is interesting to note that this was accompanied by an expression of the opinion that women's corps could never be usefully employed on active service. Realising the impossibility of changing this opinion without the proof of a good active-service record, the senior officer of the Corps, Lieut. Ashley-Smith (Mrs M'Dougal), decided to offer its services to the Belgians. This offer was accepted, and she left for Antwerp in September 1914. The Belgians at once made arrangements for the Corps to take over a hospital of eighty beds, but, unfortunately, the town fell into the hands of the Germans, and Mrs M'Dougal fled with others to Ghent, where they assisted in nursing the sick and wounded. She was still there when the Germans

entered the town, and, though all the others fled for refuge, she and a Belgian woman remained to tend a wounded British officer. He died the following night, and the Germans declared her a prisoner, fortunately leaving her movements unrestricted, and she escaped under cover of a German cloak at dusk. She crossed the frontier into Holland in a Belgian motor car, and thence returned to England, where she rejoined the corps.

The First Aid Nursing Yeomanry Corps at work at a clearing station.

On 27th October the first F.A.N.Y. unit left for Calais, where the Belgian Army was based, and was given an hospital of one hundred beds, fifty for wounded and fifty for typhoid cases. The scarcity of equipment and unfamiliar methods of the Belgians were serious difficulties for the Corps to face, but, in spite of this, a good impression of their capabilities was conveyed, and the hospital was kept full until 1917, when all the Belgian hospitals were transferred from Calais. Ambulances driven by the Corps travelled right up to the line, and a dressing-

station was established at Ramscapelle, near Dixmude, where members of the Corps went into the second-line trenches after dark and assisted with the wounded, until May 1915, when this dangerous work was forbidden by the British.

So good an impression, however, was created by the work done that the British authorities, in order to economise its men drivers, decided to hand over the whole of the Calais Ambulance Convoy work to the F.A.N.Y. This took place in January 1916, and it is of interest to note that the members of this Corps were the first women to drive officially for the British Army. The Corps largely increased in numbers, and several convoys were also provided for the French Army. Many deeds of heroism stand to its credit, the hospital in Calais being repeatedly bombed, and many members narrowly escaped losing their lives. Men were carried to safety from the trenches, under heavy fire, to the Belgian dressing-station, and the convoy at Calais was repeatedly bombed and shelled. On one occasion a bomb fell right in the middle of the camp, but by good fortune it failed to explode.

When the terrible struggle was in progress in the spring of 1918 the French sections of the Corps greatly distinguished themselves, Miss Fraser, though wounded herself, continuing to drive her wounded to hospital and safety. For this deed she was decorated afterwards, in hospital, with the Croix de Guerre with palms and the Légion d'Honneur. Other decorations won by the Corps, the strength of which was only 400, include 19 Military Medals, 2 M.B.E.'s, 1 Légion d'Honneur (French), 8 medals of the Order of Leopold (Belgian), 30 Croix de Guerre (French), 29 Médailles de la Reine Elisabeth (Belgian), 1 Médaille d'Honneur, 3 Ordres de Mérite, Croix Civique (Belgian), 2 Chevalier Ordre de la Couronne.

Miss Pat Beauchamp Waddell, the present Secretary and Adjutant, proved herself a zealous worker, and exhibited great courage under the most trying conditions. At the Front she was always to the fore, and it was whilst driving a lorry full of stretchers and blankets that she had the misfortune to lose her left leg. She has since written a book entitled *Fanny goes to War*, and, despite her disability, is still able to ride and maintain her position in the Corps.

## COMMANDER SIR THOMAS FISHER, K.B.E., R.N., General Manager, Canadian Pacific Ocean Services, Ltd.

At the date of the outbreak of war Commander Fisher was Flag Commander to Admiral Sir Alexander Bethell, commanding the Reserve Fleet, and in that capacity was present at the landing of the Royal Marines at Ostend in September 1914. During the following winter he joined the Trade Division of the Naval War Staff at the Admiralty, and was placed in charge of the organisation installed to deal with the difficult question of neutral shipping. Commander Fisher rendered important services in carrying out a system of supervising both the movements and cargoes of neutral vessels, which was rendered effective by means of a stringent control over their supplies of bunker coal. For his services in this direction he was awarded the C.B.E. (Mil.). During 1916 he acted as the technical representative of the Admiralty in various important negotiations for use of neutral shipping by the Allies. He also served on numerous Government committees dealing with commercial and shipping matters, including the Coal Exports Committee and the Board of Trade Committee for the Conservation of Coal. Shortly after the United States entered the war in 1917, Commander Fisher was appointed to succeed Sir Thomas Royden as liaison officer between the British Ministry of Shipping and the United States Shipping Board, and he continued to hold that important office until April 1919. On returning home in June 1919, on the completion of his duties in the United States, Commander Fisher was sent to Paris to assist the shipping delegates at the Peace Conference. It was clear that one possessing such a wide technical and commercial knowledge of all matters connected with shipping, and who had demonstrated his great ability as an organiser and administrator, was destined to occupy an important position in the shipping world, and in June 1919 Commander Fisher was appointed General Manager of the Atlantic Lines of the Canadian Pacific Ocean Services, Ltd.

In March 1920 Commander Fisher was awarded a Civil K.B.E. for his services to the Ministry of Shipping.

## LIEUT.-COLONEL SIR CECIL FITCH, K.B.E.,
Gordon Dene, Prince's Road, S.W. 19

HAVING been refused a commission at the outbreak of war on account of age, Mr Cecil Fitch, as he then was, devoted the winter of 1914 to recruiting work, and rendered valuable service as examiner for Lord Bryce's Committee on Belgian Atrocities.

In January 1915 he managed to overcome the age-limit objection in his own way, and joined the Army as a private. After a few weeks' training he was given a commission in the Gloucester Regiment, and was eventually promoted and transferred to the Worcesters. With that regiment he proceeded to France, and of such excellence was his work that, after being mentioned in despatches, he was specially selected for promotion and, as Major, sent for a course of instruction for senior officers at Aldershot. After successfully passing that very stringent test, he was promoted Lieut.-Colonel and given command of a battalion of the Royal Welsh Fusiliers exactly two years after securing his commission. The strenuous period of active service abroad seriously affected his health and, combined with the party truce, compelled him to relinquish his prospective candidature for Parliament. His only son, Second Lieut. C. A. G. Fitch, R.G.A., was killed in action, at the age of nineteen, on 18th September 1918.

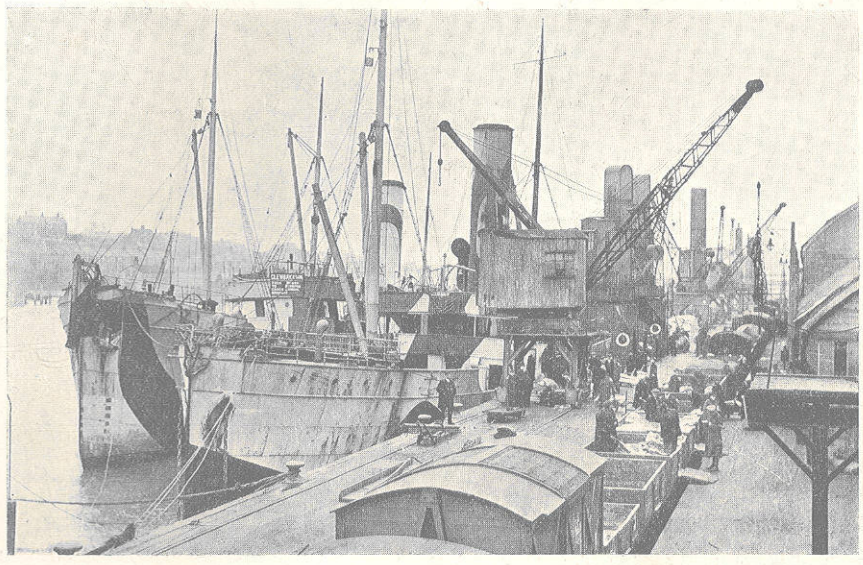
For his valuable services and devotion to duty Colonel Cecil Fitch was created a Knight of the Order of the British Empire.

## SIR WILLIAM FORBES, 189 Maida Vale, W. 9

ACTING as General Manager of the London, Brighton, and South Coast Railway Company at the beginning of the war, Sir William was also Lieutenant-Colonel Commandant of the Engineer and Railway Staff Corps, and in that capacity assisted materially in recruiting 6000 railwaymen for service with the Railway Construction Companies of the Royal Engineers.

The Company took a very important part in supplying the British forces overseas with stores and munitions, over seven million tons being conveyed through the ports of Newhaven and Littlehampton. The greater portion of this was shipped from Newhaven, 53,376 special trains and nearly 1,000,000 trucks being employed to convey the goods to the port. From Newhaven

and Littlehampton over 11,000 transports were utilised for conveying this vast tonnage overseas, 11 of which were destroyed by the enemy, entailing the loss of 99 lives. In addition to this enormous traffic in goods, the Company was called upon to carry a large number of troops, and for this purpose no fewer than 27,366 special trains were provided for the conveyance of soldiers over the London, Brighton, and South Coast Railway.



Newhaven Harbour, showing transports loading.

During the whole period of the war Sir William Forbes placed his wide experience at the disposal of the Government as a member of the Railway Executive Committee.

For his valuable services he received the distinction of knighthood and was created an Officer of the Legion of Honour.

## SIR GILBERT FRANCIS GARNSEY, K.B.E., F.C.A., 3 Frederick's Place, Old Jewry, London, E.C. 2

He is a partner in the firm of Price, Waterhouse & Co., Chartered Accountants, of London, and with branches in the Provinces, the United States, Canada, South America, Egypt, France, and Holland. From the commencement of the war Sir Gilbert was engaged on various Government inquiries, and served on Departmental Committees. He joined the Finance Department of the Ministry of Munitions in 1916, and remained there until June 1919, filling those important positions in an honorary capacity. He was at first attached to the Munitions Levy Department for a short time, and early in 1917, on the invitation of Dr

Addison, then Minister of Munitions, he took charge of the survey of the whole of the past accounts and records of the Ministry. Owing to the extraordinarily rapid growth of the Department the accounts had become very complicated and in a state of confusion. The work of the Ministry developed so rapidly, and the expenditures became so vast, that the financial accounts were of the most complicated character. The result of this was that a considerable amount of confusion prevailed in the Accountant's Department. To render the great mass of figures intelligible, therefore, Sir Gilbert was called in, and organised a department known as the Internal Audit Department, and, incidentally, its activities resulted both directly and indirectly in the recovery of very large sums of money for the taxpayer. Later in the same year, in conjunction with Mr Guy, another member of the Finance Department, he was appointed Controller of Munitions Accounts in charge of all the current records of the Ministry of Munitions. An entirely new organisation was built up and the whole of the accounts of the Ministry organised upon a new system. This system proved to be so efficient that the first balance sheet of the Ministry, viz. that up to 31st March 1918, was completed and submitted by the middle of April. On the retirement of Sir L. Worthington Evans from the Ministry Sir Gilbert was appointed Chairman of the Finance Committee and member of the Munitions Council for Finance, occupying this responsible position until the signing of the Armistice in November 1918. He was then appointed a member of the Demobilisation Board, and, subsequently, of the Munitions Council in charge of the liquidation of all contracts (other than aircraft and engines). These duties he continued to fulfil until June 1919, when, the liquidation work being practically completed, he retired from the Ministry. Immediately following this he was appointed a member of the Advisory Council and Chairman of the Finance Committee of the Ministry of Health in connection with the Government Housing Scheme. He is also one of the Committee appointed in November 1919 by the Minister of Health to inquire into the affairs of the Metropolitan Water Board.

For the valuable services rendered to the State he was created a K.B.E. in 1918.

SIR ALEXANDER GIBB, K.B.E., C.B. (M.), M.Inst.C.E., M.I.M.E., A.I.N.A., F.R.S. (Edin.), Fellow of University College, London, 27 St James's Court, S.W. 1

At the outbreak of war Sir Alexander, as Managing Director of Messrs Easton Gibb & Son, Ltd., was engaged on fulfilling the Government contract for the construction of the new Naval Base at Rosyth. By accelerating the work the Base was in use for Super-Dreadnoughts and the largest war vessels at the beginning of 1916. The increasing danger arising from submarine attacks necessitated the design and construction of special anti-submarine nets, and Sir Alexander was entrusted with the execution of some of this important work. In 1916 he volunteered for war service in France, and was requested to assist Sir Eric Geddes, the Director-General of Transportation. He entered the Army as a Lieut.-Colonel in the Royal Engineers, with an appointment on the Staff at General Headquarters, France. His business and civil engineering abilities were there employed as Consulting Civil Engineer, and also as Deputy Director of Docks. In view of the growing importance of the docks in feeding and equipping the troops, he was appointed Chief Engineer, Ports Construction, to the British Armies in France and Belgium, which work he carried on from 1916 to 1918. In February 1917 he was promoted to the rank of Colonel, Royal Engineers, and in November of that year was mentioned in Sir Douglas Haig's despatches for distinguished and gallant service and devotion to duty while serving under his command.

While holding the post of Chief Engineer, Ports Construction, he was appointed British Representative on the Commission Militaire des Ports Belges, and also British Representative on the Commission Technique des Ports Belges. In conjunction with his duties as Chief Engineer, Ports Construction, Sir Alexander was responsible for the design and carrying to a successful issue of the Channel Train Ferry termini at Dunkirk, Calais, and Dieppe, which operated in connection with the termini at Richborough and Southampton. This was an entirely new departure, and enabled trains of fifty trucks to be despatched from munition and other works in England across the Channel and direct to the Army depots without transhipment. The Ferry was subsequently used for the return of British rolling stock employed in military operations to this country.

When the German submarine activity reached its most acute stage, Sir Alexander was called upon to apply his civil engineering ingenuity to the problem of grappling with the situation created, and towards the end of 1917 he was employed by the Admiralty in certain anti-submarine schemes of vital importance. In

January 1918 he was appointed Civil Engineer-in-Chief to the Admiralty, and in this capacity proceeded with his anti-submarine work, at the same time re-organising the Works Department, to enable it to carry out the Admiralty's constantly increasing programme of construction. The organisation of a new arm of the Navy, designated the "Royal Marine Engineers," of a strength of upwards of 10,000 men, was due to his initiative. This new force was composed of workmen with experience of engineering, who were of too low a medical category to allow of their services being employed in active operations in the field. They were therefore employed in assisting in many important schemes allocated to his department. In connection with this organisation, Sir Alexander was granted the rank of Brigadier-General, Royal Marines, in March 1918.

Among other schemes carried out under his direction at that time was the laying of a pipe-line thirty-eight miles across Scotland to enable oil fuel to be pumped straight through to the East Coast for the use of the Navy, thus eliminating the great risk of oil-tank steamers having to enter the North Sea. The work was undertaken in conjunction with the American Navy, and its successful completion was estimated to have effected a saving to the country of nearly a million pounds sterling.

In view of the expenditure incurred by the British Admiralty on behalf of the United States Naval Forces, the Board requested Sir Alexander to compile and formulate the general claim to be put forward. Having regard to the number and variety of urgent services performed by the Admiralty during the stress of war, this was a very complicated matter. The majority of the Admiralty departments were involved, and the expenditure of each on work for the American Navy had to be brought to account through the many intricacies for which war conditions were responsible.

The reconstruction of the harbour works in the Belgian ports was also entrusted to Sir Alexander Gibb. On the evacuation of the Belgian ports by the enemy in October 1918, this subject became of immediate importance, and although after 11th November 1918 the military necessity of reconstruction did not exist, the Belgian Government requested the British Foreign Office to carry out, on their behalf, extensive works at Ostend and Zeebrugge, as part of their programme of peace reconstruction.

Sir Alexander was selected as Admiralty representative on the International Commission appointed for the purpose of arranging for the demobilisation of the British Armies in France, Italy, and Belgium, and was also appointed on the Naval Committee to deal with questions connected with the Peace settlement, from a financial and economic point of view. From 1917 he was also a member

of the Channel Barrage Committee, appointed to deal with the German submarine menace. In August 1919 he was appointed to the Ministry of Transport as Director-General of Civil Engineering. His duties in this position included the chairmanship of the Technical Committee working in connection with the Advisory Committee which had been set up to deal with the problem of London traffic. He also acted as chairman of one of the three sub-committees, each of which dealt with a specific aspect of the general problem.

Sir Alexander was created Knight Commander of the British Empire in January 1918, and also in the same month was made a C.B. (M.) for services rendered in connection with military operations in the field; and on his retirement was granted the honorary rank of Brigadier-General, R.M. He was also created Commander of the Order of the Crown of Belgium, and received the D.S.M. (American).

## THE HON. MRS HENRY NEVILLE GLADSTONE, C.B.E.,
Hawarden Castle, Lady of Grace of the Order of St John of Jerusalem

MAUD ERNESTINE, second daughter of Baron Rendel, was in pre-war days a keen and enthusiastic supporter of the British Red Cross Society, and at the outbreak of war found a wide scope for her activities. From October 1914 until March 1919 Mrs Gladstone was responsible for the management and maintenance of Parkgate Auxiliary Military Hospital, comprising eighty beds. The work there was carried on under her personal direction, and a high degree of efficiency was both attained and maintained. In her capacity as Vice-President of the Chester City Division of the British Red Cross, she was also responsible for the management of the Hoole Bank Auxiliary Military Hospital and the Hoole House Auxiliary Military Hospital, which contained fifty-two and sixty beds respectively. In conjunction with her sister, the Hon. Mrs Martin Dunne, and Mr H. Goodhart Rendel she lent No. 10 Palace Green, Kensington, to the military authorities to be used as a hospital for neurasthenic officers, taking an active interest in its working during the period it remained open, namely, from 1915 to 1920. In association also with Mr H. S. Goodhart Rendel she placed the Château Thorne, Cannes, at the disposal of the military authorities for the use of wounded and sick officers. Mrs Gladstone is Chairman of the Flintshire County Committee of the North Wales Nursing Association, and a member of the Chester Town Council Insurance and Health Committee.

For her valuable services during the whole period of the war she was awarded the C.B.E., and was appointed Lady of Grace of the Order of St John of Jerusalem.

Mrs Gladstone's sisters also rendered valuable services to the sick and wounded. The Hon. Mrs Cooper gave her house, Hatchlands, near Guildford, Surrey, for wounded soldiers for the period 1915 to 1918; and the Hon. Mrs Marten Dunne placed her house, No. 20 Kensington Palace Green, at the service of the Postmaster-General for a similar purpose. The Hon. Clarice M. Rendel equipped at her own expense her two houses, Nos. 2 and 3 Clarendon Terrace, Brighton, as a convalescent hospital for military and civil nurses. This hospital was opened in 1914 and remained open until 1920, during which period many hundreds of nurses were accommodated and treated.

It is also to be noted that Mr H. S. Goodhart Rendel, grandson and heir of Lord Rendel of the Grenadier Guards, made over, free of charge, eight of his houses in Brighton to the British Red Cross Society.

## HENRY NEVILLE GLADSTONE, Hawarden Castle, N. Wales

Mr Henry Neville Gladstone was actively engaged in work of a varied character throughout the whole period of the war, and rendered conspicuous services. He was President of the Flintshire Territorial Association, President and Honorary Commandant of the Flintshire Volunteer Battalion, and Honorary Colonel of the Flintshire Cadet Corps. He also served as a member of the War Agricultural Committee for that county, and acted as Chairman of the War Pensions Committee. During 1915–1916 Mr Gladstone, in his capacity as Chairman of the Flintshire Parliamentary Recruiting Committee, materially assisted in maintaining the necessary supply of men for the fighting forces, which important work he continued from 1916 to 1918 as Chairman of the Flintshire Military Service Advisory Committee. When the shortage of hospital accommodation became apparent, Mr Gladstone immediately placed Hawarden Castle at the disposal of the War Office as a hospital for officers. This was opened in 1917 and remained in use for this purpose until after the Armistice. He also lent his house at Littlestone, in Kent, to the Post Office Department for use as a hospital for wounded and sick soldiers, which remained open during the whole period of the war. The Pensions Ministry accepted Mr and Mrs H. Gladstone's offer of Wold House, Hawarden, for use as a home for paraplegics, but it was subsequently found that this would not be required. In addition to these many activities and sacrifices, Mr and Mrs H. Gladstone converted Glynne Cottage in Hawarden Park into a convalescent hostel for military nurses, and during 1914–1915 they accommodated twenty Belgian refugees at Benton Manor, Cheshire.

F. C. GOODENOUGH, Chairman, Barclay's Bank, Limited,
54 Lombard Street, London, E.C. 3

THE vast financial requirements and problems created by the war, as well as those associated with the re-establishment of trade and industry after the close of hostilities, demanded the services of those whose wide experience and grasp of finance alone fitted them to guide and advise the nation. The times were critical, the problems grave and complicated, and only those with clear vision and an unprejudiced mind could cope successfully with the great questions raised. To deal effectively with these the Committee on Financial Facilities, of which Mr Goodenough was a member, was formed, the purpose of which was to consider and report whether the normal arrangements for the provision of financial facilities for trade by means of existing banking and other financial institutions would be adequate to meet the needs of British industry during the period immediately following the termination of the war, and, if not, by what emergency arrangement they should be supplemented, regard being had in particular to the special assistance which may be necessary : (1) To facilitate the conversion of works and factories now engaged upon war work to normal production ; (2) to meet the exceptional demands for raw materials arising from the depletion of stocks.

In common with other leading bankers, Mr Goodenough was also in continual consultation with the Treasury in various complex financial difficulties which arose during the war. He is greatly interested in the question of currency, and in this connection gave evidence before Lord Cunliffe's Committee on Currency and Foreign Exchanges after the War.

From a financial and economic aspect the period succeeding the Armistice presented more actual difficulties than did the war years. From July 1914 to November 1918 everything was sacrificed to the need of the moment, and although this opportunist policy was unavoidable, it left a financial tangle both at home and abroad which it will take years to straighten out. The reconstruction of the devastated countries is, perhaps, the chief of these problems, and is one which presents enormous social, political, financial, and economic difficulties. In this connection an International Memorial was prepared and presented to the principal Governments. Mr Goodenough was among the memorialists, and one of those who a little later met the Chancellor of the Exchequer in consultation on the matter.

As a member of the India Council Mr Goodenough also rendered great services to the State in this position, involving as it did the solution of many

difficult and complex problems. The disturbance to the rupee currency and exchange which resulted from war conditions led to a Committee being appointed by the Secretary of State for India to inquire into Indian currency and exchange. Mr Goodenough was a member of the Committee, and signed the majority report, which was made after arduous and protracted inquiry.

## JOHN ARTHUR GREENE,

Trafalgar Buildings, 1 Charing Cross, London, W.C. 2

FROM an early date Mr J. A. Greene has taken a keen interest in the better utilisation of coal and other bituminous materials, more particularly for the production of oil, "patent" fuel (briquettes), and the generation and distribution of power.

It has been said that "the war was won on a wave of oil." Our Navy depended upon oil fuel, our Air Service upon petrol; in the manufacture of high explosives oil was indispensable; whilst the marvellous work of the Motor Transport Service was one of the wonders of the war. A stoppage of the oil supplies of either the Allies or the enemy would have meant an immediate and complete victory for the other. Thus the importance of this liquid was quickly realised, and it was also realised that Great Britain at that time was entirely dependent upon outside supplies. It was therefore obvious that every possible step should be taken to produce oil from indigenous sources.

At that period the late Sir Boverton Redwood, Bart., was Adviser on Petroleum to H.M. Government, and at the request of the then Minister of Munitions (Dr Addison) he accepted the position of Director of the Petroleum Research Department. At the request of Sir Boverton Redwood, Mr Greene became associated with him in his work. So extensive was this work that it is impossible in the space available here to enter into a great amount of detail regarding it. It may, however, be stated that undoubted benefits were conferred upon the country generally by the discovery of new sources of supply of material suitable for the distillation of oil, till then unknown to exist in the country. In addition to this exhaustive investigation, the efficient correlation of geological and chemical and engineering work, and an important series of exhaustive tests, were carried out and the results tabulated. In the course of the investigations made, it was ascertained that the canneloid deposits of the coalfields afforded the best and most easily utilisable source of mineral oil. The results of the work carried out by the Petroleum Research Committee, of which Mr J. A. Greene was a prominent

member, are recorded in detail in a volume entitled *A Treatise on British Mineral Oil*, edited by Mr Greene and contributed to by several of our leading scientists. This work focuses the exact position of the relation of the mineral deposits of this country to the production of oil for fuel purposes. Mr Greene, by his energetic and resourceful work, in the course of which he traversed the whole of the districts known to be mineral-bearing, brought to light new deposits valuable from the point of view of oil production. There can be little doubt that the result of the researches made by, and under the direction of, Mr Greene, proves fairly conclusively that, provided commercial enterprise is forthcoming, this country could be placed in an independent position in regard to its fuel-oil requirements.

In acknowledging a report on the work of the Department submitted by the Director, the Minister of Munitions wrote as follows :—

"2 Queen Anne's Gate Buildings,
Westminster, S.W. 1,
21*st November* 1917.

"Dear Sir Boverton Redwood,—I have read your Inter-Departmental Committee's Report on Petroleum with great interest. I must most heartily congratulate you upon this magnificent piece of work, which ought to be of permanent value. I feel some reflected glory in the fact that I had a hand in the appointment of the Branch.—Yours sincerely, (Signed) Christopher Addison."

And in forwarding a copy of this to Mr Greene, Sir Boverton wrote :—

"Dear Mr Greene,—You will be gratified to read the enclosed generous letter of appreciation of our joint labours from the Minister of Reconstruction.—Yours sincerely, (Signed) Boverton Redwood."

When the Petroleum Research Department was closed, it was realised that the valuable work which had been done must not be allowed to lapse, and the Institution of Petroleum Technologists in February 1918 appointed a special Committee to continue the investigations and endeavour to bring them to a practical conclusion. The Committee, which was organised by Mr Greene, was composed of some of the leading colliery owners and technical men in the country, and Mr Greene acted as Technical Adviser on Minerals and Supplies and Hon. Secretary.

The Committee sat for nearly twelve months and went very exhaustively into the whole subject, and a final report embodying the conclusions arrived at

was issued on the 7th March 1919. Following the report of this Committee, Mr Greene founded a private company with a subscribed capital of £100,000 for the purpose of erecting a National Research and Experimental Station to test out on a practical scale the various retorts and processes which had been evolved for the production of oil and by-products. From the establishment of this station it is confidently expected that results of far-reaching importance will be attained.

Simultaneously with the production of oil, Mr Greene devoted much attention to the question of the utilisation of the residues which remain after retorting both for the generation of power and for use in the manufacture of briquettes and other solid fuels. In connection with his work he has personally investigated sources of supply on the Continent, in South Africa, United States of America, Canada, Labrador, and elsewhere.

## COMMANDER K. MACKENZIE GRIEVE, R.N., 14 Hallam Street, W. 1

Commander K. Mackenzie Grieve, who was born at Sandown, Isle of Wight, on 7th March 1880, joined the *Britannia* at Dartmouth in June 1894, going to sea two years later. During the early part of the war, 1914–15, he was attached to the Naval Base at Yarmouth for duties with armed trawlers. In this connection he was lent for duty under Admiral Hood during the operations off the Belgian coast in December 1914 and January 1915, and continued patrolling the Dutch and Belgian coasts until the advent of a very large number of German destroyers at Zeebrugge necessitated the patrols being withdrawn from that neighbourhood. After further service with the armed trawlers in the home waters during 1916, Commander K. Mackenzie Grieve was transferred to the Grand Fleet to take up his appointment as Navigating Commander of the aircraft carrier *Campania*. Two years later the *Campania* was sunk in a collision in the Firth of Forth, and Commander Mackenzie Grieve was appointed to the *Crescent* in January 1919 for duties in connection with her salvage. The difficulties of this operation proved, however, to be insuperable, and the project was subsequently abandoned. It was then that Commander Mackenzie Grieve had the first intimation of the proposed trans-Atlantic flight which Mr Harry Hawker was about to attempt in a Sopwith biplane. Receiving an offer to participate in this venture as navigator, he applied for half-pay, and concentrated the whole of his energies on the projected flight.

Early in April 1919 Commander Mackenzie Grieve arrived in Newfoundland

with Mr Hawker and the machine, and immediately made everything ready for an early start; but, owing to unsuitable weather, this was impossible until 16th April, when they heard that the American Flying Corps were about to make an attempt. In order that no opportunity of securing the first trans-Atlantic flying honours for England should be lost, they started without further delay, in the face of unfavourable weather.

No higher tribute could be paid to the daring of these two pioneers than the world-wide anxiety which was felt for them, an anxiety which increased from hour to hour until the evening of Monday, 17th April, when it was apparent that some disaster had overtaken them. No news of the aviators was heard until a week later, when the suspense was broken by the receipt of a wireless message from H.M.S. *Revenge* on 24th April, stating that the adventurers had been taken off the *Mary*, a small Danish tramp steamer, which had picked them up in mid-Atlantic, 1100 miles from their starting-point. A few days later they landed in England, where they met with a most stirring reception. In recognition of their very gallant flight, both aviators were decorated with the Air Force Cross.

## MAJOR LESLIE HADEN GUEST, M.C., M.R.C.S., L.C.C.,
20 Tite Street, Chelsea, London, S.W. 3

Major Haden Guest served as a civil surgeon in South Africa during the South African War, and remained in that country for two years afterwards. On 3rd September 1914 he landed in France in command of a voluntary Red Cross hospital unit, which served in Paris at the Hôtel Majestic when the French Government had fled to Bordeaux and the Germans were at the gates of the capital. British wounded from Mons and French wounded from the battles of the Marne and Aisne were treated at this hospital. By the end of 1914 Major Guest had organised hospitals at Limoges and Nevers, and in other places. Early in 1915 he made representations to the War Office on the need of Allied help in France, and founded the Anglo-French Committee of the British Red Cross Society and Order of St John by the help of the chairman of the Society. In 1915 he took over the first hotel to be used for soldiers or officers in England, and commanded the Endsleigh Palace Officers' Hospital until October. In November 1915 Major Haden Guest again went to France, and was with the 29th Division in the attack on Beaumont-Hamel, when he not only discharged medical duties but commanded a reserve company for making roads, carrying

ammunition, etc., in the front area. In November 1916 he was appointed D.A.D.M.S. to the 14th (Light) Division, and served with them at Ypres, Arras, and elsewhere; and in 1917 was second in command of the 2/2nd Home Counties Field Ambulance of the 58th (London) Division, and was with them at Bullecourt, Ypres, and in the Passchendale Ridge fighting, where he gained the M.C. for work under fire on the taking of the Hübner trench. In 1918 Major Guest was sent to Egypt, and was for a time in command of the medical side of the Officers' Hospital, Ras-el-tin, Alexandria, and with the 3rd (Indian) Division in Palestine in the final advance of Allenby's army which broke up the Turkish forces. Leaving Palestine in October 1918, he returned to England and unsuccessfully contested Central Southwark (London) as a Labour candidate, being demobilised in March 1919. In the same month he was elected Labour member of the London County Council for Woolwich (East), and is now prospective Parliamentary candidate for Woolwich (West) at the next election. In 1920 Major Haden Guest was a member of the British Labour Delegation to Soviet Russia, and has contributed articles on the question of Bolshevism and conditions in Russia, since his return, to *The Times*, *The Nineteenth Century*, and other journals. He is also the author of books on social and economic questions, and has published a work on *The New Education for London*, in which an indication is given of the forward developments of education. He holds very strong views on the duty of those who have participated in the war taking part in building up a new England.

## MRS MURRAY GUTHRIE, 18 Portman Square, London, W. 1

THE vast numbers of men who enlisted when war broke out threw a great amount of work on those who were responsible for the organisation of the Soldiers' and Sailors' Families Association. This Association has branches throughout the country, and Mrs Murray Guthrie was engaged at the Limehouse branch, a centre at which the numbers of reservists and enlistments dealt with were naturally very heavy. Mrs Guthrie, who was President of this branch, was assisted in the onerous work by the valuable services rendered by her secretary, Mrs Godding, and also her son and others during the first six months. The sudden withdrawal of the men from their ordinary lives entailed a considerable amount of difficulty in regard to the domestic financial position, and it was in this direction that Mrs Guthrie, through the Association, was enabled to render such valuable

assistance to the families of the men who had left home. Some idea of the strenuous work which devolved upon this branch of the Association may be gained from the fact that over 6000 letters were written on behalf of the dependents of sailors and soldiers, while at the same time large quantities of clothing and other necessaries were distributed during the absence of the men. That this work was carried out most efficiently, and on the most economical lines, is proved by the fact that the cost of postage, printing, and stationery, and contributions towards the rent of offices, amounted to less than 2d. in the £ of the money distributed.

A West of London Hospitality Centre which will be remembered by large numbers of the troops who visited it during leave was that known as "Ciro's," which was handed over to the Y.M.C.A. At this admirable centre Mrs Guthrie rendered untiring service under Mrs Norrie, who had generously assumed the management. The main idea of this establishment was unlike similar hospitality centres, the men being allowed to entertain their women friends and relations there, while at the same time enjoying an excellent concert. The whole of the staff at this centre was entirely voluntary, and there can be little doubt that inestimable service was rendered to the troops after their arduous campaigns in France and elsewhere. It is interesting to know that on Armistice Day no less than 25,000 meals were served at this centre, the work of which was carried on till June 1919. Mrs Norrie also, assisted by Mrs Guthrie and others, received on behalf of the Y.M.C.A., at Cannon Street, between twenty and thirty prisoners of war when they returned from Germany, immediately after the Armistice.

In addition to these numerous activities, Mrs Guthrie organised working parties on the Torosay estate, who did splendid work in supplying socks, comforters, etc., to the local men serving abroad.

F. MARTEN HALE, Furzedene, Kinnaird Avenue, Bromley, Kent

First associated with explosives in 1895, when General Manager to the New Explosives Company, Mr Marten Hale was responsible for many inventions to which the successful outcome of the war was to no small extent attributable. In 1904 the New Explosives Company, which, under Mr Hale's guidance, had expanded to a very considerable extent, was bought by the Nobel Dynamite Trust, which, with its associates, now forms the Explosive Trades, Ltd., with a capital of £18,000,000.

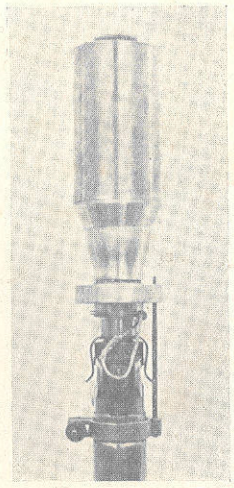
In 1906 Mr Hale invented, and gradually perfected, a form of grenade to be fired from an ordinary service rifle, and so effective a weapon was this proved to be that, on the outbreak of war, the Government, which held no stock at the time, ordered several thousand to be made. During the period of the war no fewer than ten million " Marten Hale " Patent Rifle Grenades were fired by our troops, and they were recognised as being one of the most efficient weapons in trench warfare. In order to check the night raids, which, in the early days of

Mr Marten Hale (on extreme right) with representatives of foreign governments.

the war, were a familiar feature of the German methods of attack, Mr Hale invented a device known as " Hale's Patent " Illuminating Grenade, which was fired from a rifle when a raid was expected, and which, when at an altitude of about a hundred feet, released a parachute carrying an intense white light. The method of using this type of grenade, or parachute flare, as it was generally termed, was to fire a number when a raid was expected, and, during the period of illumination, to sweep the intervening space between our own and the enemy's trenches with machine-gun fire.

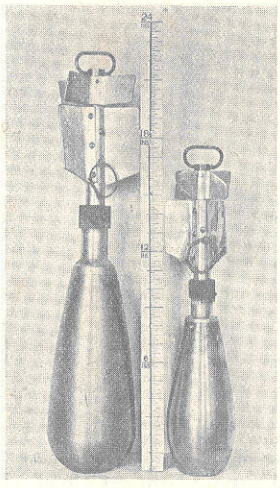
Turning his attention, some years before the war, to the study of aerial bombs, Mr Hale was ready when hostilities commenced with the " Marten Hale " Patent Aircraft Bomb. This weapon incorporated all the fundamental principles which

have been utilised in every aerial bomb manufactured since 1914, and it was a "Marten Hale" bomb with which the first Zeppelin in the war was destroyed in its shed at Düsseldorf by Lieutenant Marix in October 1914, and another (the first in the air) by Lieutenant Warnford in June 1915.



The Rifle Grenade.

Having provided two of the most effective weapons in the war for use on land and in the air, Mr Hale, at the request of the Admiralty, discussed the further application of the latter with Admiral Sir Percy Scott, then head of the Submarine Attack Committee, which culminated in the invention of the "Lance Bomb." This, however, did not prove sufficiently effective, and he then proposed and patented the "Diving Bomb," from which was evolved the famous "Depth Charge."



Hale's Aircraft Bombs (Mk. II.), 20 lbs. and 10 lbs.

So high an authority was Mr Hale on all types of explosives that when, after the first few months of the war, the acute shortage of lyddite, gun-cotton, and T.N.T. became a very serious problem, his aid was invoked by the War Office to find an equally effective explosive which could readily be manufactured in sufficiently large quantities to cope with the enormous and ever-increasing demand. At his suggestion ammonal was experimented with, and, proving completely satisfactory, was immediately adopted, and is universally accepted as one of the greatest factors in the prosecution of the war.

SIR HERBERT HAMBLING, Deputy Chairman, Barclay's Bank, Ltd. 170 Fenchurch Street, London, E.C. 3; Deputy Chairman of the Amalgamated Banking Concerns, Barclay's Bank, Ltd., the London and South-Western Bank, Ltd., and the London and Provincial Bank, Ltd.

At the outbreak of war the financial position of the country required very careful handling, and the masterly manner in which every eventuality was foreseen and dealt with elicited world-wide admiration. At that time of stress and uncertainty little was needed to precipitate a crisis, but the statesmanlike manner in which

the situation was handled averted such a catastrophe. In those early days of the war the position of London was still pre-eminent among financial circles of the world. All the exchanges were in favour of this country, and had less skilful brains grappled with the problems the international position would have been disastrous. Mr Lloyd George realised very clearly the grave difficulties and dangers with which the country was faced, and consulted with the leading bankers, who, at the time, were working twenty-four hours a day on the solution of the various complex and difficult problems which presented themselves in endless succession.

Sir Herbert Hambling took a prominent part in these deliberations, and his wide knowledge of both home and international finance, and his shrewd judgment, were of great value in this the most difficult financial position ever faced and surmounted. Sir Herbert was a little later also entrusted with certain negotiations concerning the finance of the Canadian wheat crop. In due course his report was prepared and handed to the Government. For some reason this report was not acted upon by the Government, although from her abnormal wheat crop Canada, under the arrangements suggested, could have spared sufficient to have supplied all the needs of the United Kingdom at a low rate.

Sir Herbert is also a Director of Messrs Cox & Co. (France), Ltd., a company formed in the early stages of the war to provide facilities for meeting the banking needs of the Army in France, and in this connection also he rendered excellent service to the nation.

In 1916, when Dr Addison was Minister of Munitions, Sir Herbert became a member of the Financial Advisory Committee at the Ministry. When Mr Churchill was appointed Minister, the well-known Munitions Council was formed in order that questions of policy affecting all departments might also come before the Ministry with the advice of a selected body of experts.

Sir Herbert was appointed Head of the Finance Group and a member of the Council, the group of departments under his supervision including: Finance, Munitions Works Board; Controlled Establishments Finance; Munitions Contracts; Lands; Central Stores and Salvage. He was continually going to France to speed up output, and on more than one occasion his broad view of the financial side of a transaction enabled the Government to obtain goods which would have been otherwise fatally delayed, and he never hesitated to give the manufacturer the necessary financial support.

After six months' valuable work in these responsible positions the negotiations for the amalgamation of the London and South-Western Bank and the London and Provincial Bank had advanced to a stage which necessitated

the directors recalling Sir Herbert for the purpose of completing the final arrangements.

He assisted the Lord Mayor in raising troops and the Bankers' Battalion, and held an honorary commission. He is a Justice of the Peace for Hertfordshire, a member of the Council of the Institute of Bankers, and is generally interested in all the various banking movements. He is also Chairman of the General Committee of the Bank Clerks' Orphanage, in which institution he takes a particular and personal interest.

The honour of knighthood was conferred upon him in 1917.

## CECIL BISSHOPP HARMSWORTH, 28 Montagu Square, London, W. 1

Mr Cecil Harmsworth, barrister-at-law, held numerous State appointments of great responsibility throughout the whole of the war period. The third son of Mr Alfred Harmsworth, he was educated at Trinity College, Dublin, and commenced his Parliamentary career in 1906, when he was returned for the Droitwich Division of Worcestershire. Representing this constituency until 1910, Mr Harmsworth was then elected for the Luton Division of Bedfordshire.

Among the many positions he held during the war were Private Parliamentary Secretary to the Right Hon. Walter Runciman, which office he again held under the Right Hon. Reginald M'Kenna. In 1915 Mr Harmsworth was appointed Parliamentary Under-Secretary for the Home Office, and for the last two years of the war he was a member of the Prime Minister's staff at No. 10 Downing Street. In addition to these varied spheres of activity, he devoted much time and energy to recruiting, and was Chairman of various Government committees devoted to this important work. He was also Chairman of the Motor Loan Committee of the Board of Agriculture and Fisheries, which had for its object the installation of motor power in fishing vessels, with a view to their greater capacity as food-producers.

In 1919 Mr Cecil Harmsworth became Under-Secretary of State for Foreign Affairs and Acting Minister of Blockade, and is now a member of the Supreme Economic Council.

### BRIGADIER-GENERAL T. E. HICKMAN, C.B., D.S.O., D.L., M.P., M.F.H., Naval and Military Club, 94 Piccadilly, W. 1

One of the earliest steps taken by the late Lord Kitchener, after his appointment as Commander-in-Chief and while he was in charge at the War Office, was to send for Colonel Hickman, who was at the House of Commons, and instruct him to raise as many men as he could for the Army, and to raise them as quickly as possible. With characteristic energy, General Hickman handled the situation with such eminent success that in less than five days he had raised one complete battalion. This achievement he supplemented by raising another complete battalion in under ten days. These were the 7th and 8th Battalions of the South Staffordshire Regiment. As a result of his success in this direction, General Hickman was despatched to the North of Ireland (Belfast) to raise men from the Ulster Volunteers, and in a very short time he succeeded in raising a complete division —the 36th. On the completion of this task he was given command of the 109th Brigade of the division he had raised, which brigade he had trained in the North of Ireland. He accompanied this brigade to France when the 36th Division was ordered overseas on completion of their training in October 1915; occupied, with the 109th Brigade, the trenches opposite Serre Aisne, at Thiepval Wood, throughout the winter and spring of 1915–16. General Hickman was recalled to England in May of the latter year, when he resumed his Parliamentary duties and became an active member of the Unionist War Committee, which was largely instrumental in securing the passing of the Conscription Acts. General Hickman was also one of the first and most persistent advocates of the formation of the War Cabinet, which policy was eventually adopted.

### SIR THOMAS H. HOLDICH, 41 Courtfield Road, London, S.W. 7

Among the many important contributive works executed during the war, the compilation of maps for assistance in studying general questions of communications, supply, strategy, and political boundaries was by no means the least. On the composition of accurate and detailed maps depended, to a very great extent, the successful issue of operations. It was in this specialised branch of work that Sir Thomas Holdich was engaged during the war, and, when he was appointed President of the Royal Geographical Society in May 1917, the services he rendered

in this direction were, as the Army Council stated, indispensable. The great value of this work, and the absolute accuracy with which it was carried out, was of such an authoritative character that at a meeting of the geographical representatives of the Powers, at the Service Géographique, on 6th February 1919, it was decided that the map of Central Europe should be used by all nations for the preliminary definitions of new boundaries. This map was drawn to the scale of 1–1,000,000, and was followed by a general map of Africa on the scale of 1–2,000,000, the previous scale being found too large to cover so vast a continent. Following this, a general map of Asia was commenced on, to the scale of 1–5,000,000. In addition to the series of general maps, the Society compiled and issued indexes to various series of topographical maps, and did much experimental work in the preparation of special maps for flying; whilst, at the same time, the library and maps of the Society were very extensively used by almost every Department of State, and especially by the Air Ministry during the last six months of the conflict. It is difficult to convey any clear idea of the enormous amount of work involved in the production of such maps as those referred to, for they involved not only great accuracy, but a wide ethnological knowledge in connection with the various races of Eastern Europe. Sir Thomas Holdich also published two books on international boundaries, namely, *Political Frontiers and Boundary Making*, and *Boundaries in Europe and the Near East*, the latter of which undoubtedly assisted very considerably in enabling the Peace Conference to settle the many boundary problems which arose as a result of the war.

HERBERT ALFRED HUMPHREY, M.Inst.C.E., M.I.Mech.E., M.I.E.E., Assistant Director and Technical Adviser of Explosives Supplies, May 1915–July 1917; Technical Adviser and Chief Engineer to Munitions Inventions Department, August 1917–September 1919.

At the outbreak of war Mr Humphrey was practising as a consulting engineer in London. In April 1915 Mr Humphrey offered his services, without remuneration, to Lord Moulton, who had by then been appointed Director of Explosives Supplies. This offer was accepted, and he thereupon started work on the problem of purifying trinitrotoluol (T.N.T.). Following a survey of the secret methods in use by Nobel's and by the Clayton Aniline Company, he asked Lord Moulton's permission to invite two first-class chemists to join him in devising a better, safer, and quicker method of purification. Having, twenty years earlier, been

employed by Messrs Brunner, Mond & Company, Mr Humphrey naturally applied to that firm for the loan of two chemists. With their aid the purification problem was tackled in the most energetic manner, and, in the space of only a few months, Mr Humphrey was able to place before Lord Moulton the outlines of a scheme for a new factory to be erected at Rainham. On the approval of these, the works were erected, and operations started in October 1915. Although, however, this plant was the largest unit in the country, it was not sufficiently extensive to meet the rapidly growing needs. In June 1915 the necessity for further T.N.T. purification plant was so acute that Mr Humphrey again approached Messrs Brunner, Mond & Company for assistance, with the result that they were induced to agree to convert their large chemical plant at Silvertown to a T.N.T. purification works. Lord Moulton sanctioned the scheme, and Dr Lamb and Dr Angel were placed in charge of the plant, and splendid work was accomplished. Unfortunately, however, a fire started in the building on 19th January 1917, and, in spite of efforts to extinguish the flames, an explosion followed, completely wrecking the works. Dr Angel was one of the victims, and for his heroic efforts was awarded posthumous honours. In view of the possibility of similar accidents in other works, Lord Moulton decided to isolate the purification of all crude T.N.T. in a large central purification works, the supervision of the designs and erection of which devolved upon Mr Humphrey's department. The new works were situated at Gadbrook, in Cheshire, and they were started in operation in February 1916, and continued in use until the end of the war. The Gadbrook works had a capacity of 500 tons per week, and the process of purification needed less than three and a half hours. This remarkable development is best seen by comparison with the capacity of the largest works in existence at the outbreak of war, which was only capable of purifying 15 tons per week, the process requiring three and a half days to complete.

Mr Humphrey was also closely associated with the manufacture of ammonium nitrate. By agreement with the French, it was decided that the major portion of the high explosives should be lyddite for the French Army and amatol for the British Army. In arriving at this decision, Lord Moulton acted with his usual wisdom, although criticised at the time for adopting a mixed explosive of T.N.T. and ammonium nitrate (in ratio of 1 to 4) which had hitherto only been the subject of successful experiments. Amatol is much more difficult to detonate than lyddite, and it was only by countless trials and improvements in even the smallest details of shell-filling, gaines, and fuses that amatol was enabled to emerge a triumphant success. In conjunction with Dr Farmer, Mr Humphrey was appointed to represent the Explosives Department at the weekly meetings of

the Ordnance Committee. The demand for T.N.T. and for amatol grew at such a pace that the ammonium nitrate problem became as acute as any in the war. The pre-war supply for industrial explosives was so small as to be quite insignificant compared with the demand for war purposes. A suitable conversion process for dealing with imported calcium nitrate was introduced and the necessary plant erected, and the first delivery of 40 tons of finished product was made by the end of April 1915. To raise the output to 300 tons per week, additional plant was installed; but it was evident that some totally different methods would have to be devised, or the growing requirements could not be met. The new process evolved consisted in ammoniating a strong solution of sodium nitrate, blowing $CO_2$ through this to obtain bicarbonate of soda in the form of a solid precipitate, and ammonium nitrate in solution. The solution, after separating, was cooled to deposit solid ammonium nitrate. The process also involved the purification of the sodium nitrate imported from Chili as a preliminary step, and had worked well in the laboratory, but its application on a large scale proved to be a difficult and complex chemical problem. In spite, however, of the difficulties encountered, the process yield was eventually raised to over 700 tons per week.

Another method was also adopted involving the use of calcium chloride, a waste product of alkali manufacture, and its conversion first to calcium nitrate and then to ammonium nitrate. Many difficulties again presented themselves, which, however, were eventually surmounted, and H.M. Factory, Victoria Works, was erected, with a productive capacity of 1500 tons per week, the Albert Works with a capacity of 500 tons, while the original plant at Plumbley, in Cheshire, was expanded to an output of 560 tons of calcium nitrate per week. All this output had to be conveyed to the works at Lostock, where it was converted to ammonium nitrate.

In August 1916 still further increases were decided upon, both for calcium nitrate plant and the corresponding conversion plant; and, by extending existing plant and erecting new factories, the total programme in August 1916 had reached the remarkable figure of 400 tons of ammonium nitrate per week.

By the researches of Captain Freeth it was proved that, under proper conditions, sodium nitrate and ammonium sulphate could be made to undergo double decomposition, and yield a solution which would crystallise out a sufficiently pure ammonia nitrate. Trials of this further new process were carried out on a full manufacturing scale at Sandbach Works, and resulted in a decision by Lord Moulton to erect a new Government factory to operate the process. A factory was therefore built at Swindon, with a calculated capacity of 2000 tons per week. On the completion of this work, Mr Humphrey was transferred to the

Munitions Inventions Department, receiving from Lord Moulton a personal letter of thanks, in which he remarked: "I greatly appreciate the valuable work you have done for the Department both as Assistant Director and Technical Adviser, also the important financial sacrifice you have made to enable you to do this work for the country; and on behalf of the Ministry I have pleasure in tendering its best thanks."

Mr Humphrey's services included trials of many explosive mixtures fired in shells at the various testing grounds; the preparation and testing of incendiary and smoke mixtures; and designing factories and apparatus for the production of mixed explosives. When he took over ammonium nitrate under Mr Alston in December 1916, the total output was 400 tons per week. Six months later the programme had been fixed at 2100 tons per week, and when he left the Department it had risen to nearly 4000 tons per week.

His new work included in its scope the experimental work on synthetic ammonia at University College, London. It was intended that a large cyanamide factory should be built for the production of cyanamide and its conversion to ammonia and nitric acid, and so, by combining these, to produce ammonium nitrate. Designs for such a factory were commenced by Mr Humphrey, but the scheme was abandoned in favour of the D.E.S. scheme for direct synthesis of ammonia by the Haber process, to be carried out in a new works at Billingham.

This latter scheme never passed the preliminary stages, and on the conclusion of the war was handed over to the Munitions Inventions Department. Pending these various changes, Mr Humphrey was engaged in investigating the Hausser process for the cheap production of nitric acid, and invented a new method which was patented in all important countries. The patents were taken over by the Government. He was also engaged in work on the specific heat of gases and other technical subjects, and spent much time on the various "power production" problems dealt with by the Nitrogen Products Committee. This work was completed when the Committee's report took final shape for publication, and in September 1919 Mr Humphrey left the Ministry to become consulting engineer to a new syndicate formed to erect a large factory for the synthetic production of ammonia in this country.

CAMPBELL M. HUNTER, O.B.E., M.A., A.M.I.C.E.,
4 London Wall Buildings, London, E.C. 2

When hostilities broke out, Mr Campbell M. Hunter, O.B.E., was engaged on important oil research investigations in Western Canada for the Canadian Pacific Railroad Company. Returning home, he devoted himself to the solution of some of the many problems the war was producing. Among other important suggestions he submitted to the authorities was the use of liquid fire, an idea conceived several weeks before the enemy made his first attack supported by Flammenwerfer. To prove its possibilities, Mr Hunter volunteered to equip and train a liquid-fire unit. At that early stage of the war, however, our leaders thought the suggestion too diabolical, the country having still to learn that the enemy had no such scruples. In the autumn of 1915 Mr Hunter was asked by the War Office to visit the Dardanelles for the purpose of dealing with the acute shortage of water in that area. Unfortunately, the order for the evacuation of the Peninsula was decided upon shortly after his arrival in Mudros, and before full advantage could be taken of his staff and equipment for drilling water wells in Gallipoli. Realising that the same condition of water shortage would arise in Salonica, Mr Hunter persuaded the authorities to allow him to proceed there at once. On his arrival he found the existing water supply of the city of Salonica barely sufficient for the civilian inhabitants, while in the country round the town, where our troops were camped, there was no supply at all. He speedily organised a complete well-boring camp, and made a rapid geological survey of Lower Macedonia, and, before the summer was at its height, some thirty deep wells had been drilled. From these an abundance of pure cold water was derived, amply sufficient for all our hospitals and troops in that area.

The remarkable results attained by Mr Hunter induced General Sarrail to request him to undertake similar services for the French Army. The success of the work carried out by Mr Hunter on the Macedonian front, during 1916, was well illustrated by a printed notice that was posted in one of the Canadian hospitals at the very end of that exceptionally hot summer, to the effect that officers were requested not to take more than one bath a day. In marked contrast to this was the pittance of one cupful of tepid water a day in Gallipoli.

At this stage Mr Hunter's health broke down, and he had to return home. Fortunately, however, the organisation he left behind was so complete in every detail that it was successfully able to carry on throughout the rest of the campaign. On his return to England, Mr Hunter had to undergo a severe operation, and,

while still convalescing, he was called to the Ministry of Munitions by Sir Ernest Moir, Bart., where he took charge of the production of all railway materials required on the various fronts. The magnitude and responsibility of the task were great, since it had been realised by then that nearly all our big offensives had broken down for lack of railway transport.

In addition to the problem of developing the home manufacture of all forms of railway supplies, the need for co-ordinating these, in order to ensure regular deliveries, had, in view of the higher priority which naval orders carried, become acute. The system devised by Mr Hunter was so effective that during the last ten months of the war the actual deliveries of railway materials approximated 95 per cent. of the quantities promised. During the retreat of March 1918, when the loss of our Channel ports appeared imminent, the problem of feeding London and the East Coast generally from the western ports of England became of vital urgency. The manufacture of all supplies required by the home railways to enable them to effect this east to west coast diversion was placed in Mr Hunter's hands, and the plans and reconstructions were so perfected that the diversion could have been carried out at a moment's notice. When the Armistice was declared, Mr Hunter's organising experience was applied to devising means for quickly liquidating and winding up the many hundreds of outstanding contracts, and it was not till early in 1919 that he was able to return to his own professional work as Oil Expert and Consulting Engineer.

For his services in the Ministry of Munitions Mr Campbell M. Hunter received the O.B.E.

SIR JOHN HUNTER, K.B.E. (Messrs Sir William Arrol & Co., Ltd., Glasgow), 85 Preston Street, Bridgeton, Glasgow

At the outbreak of war the country was fortunate in having many eminent and patriotic men controlling the great industries of the nation. The organisation of the country's trade on a war basis, to provide the necessary materials of every description as quickly and in as large quantities as possible, was the first essential factor for the successful prosecution of the war.

Sir John Hunter's lifelong connection with the iron and steel industries, and his expert knowledge of large constructional schemes, acquired as Managing Director of Sir William Arrol & Co., Ltd.—the firm responsible for the erection of the Forth and Tower Bridges, and many other great engineering works both

at home and abroad—peculiarly fitted him for the responsible duties which he undertook in accepting Mr Lloyd George's request to become Director of Factory Construction in the Ministry of Munitions in 1915. At this time the Government were faced with the problem of meeting the enormous and ever-increasing demands of the Army and Navy for heavy shells, and Sir John's first duty was the construction of fifteen National Projectile Factories, which were erected on carefully selected sites in England and Scotland. So rapidly were these factories erected that the output from them alone rendered the Somme offensive of 1916 possible, and not only was Great Britain able to provide her own requirements of heavy shell, but also to contribute materially to those of her Allies. In addition to the National Projectile Factories, Sir John was responsible for a very large building programme for different supply departments, including national aircraft factories, aerodromes, acceptance parks, aircraft repair depots, aircraft stores distribution parks, national ordnance factories, extensions to ordnance works, assisted shell factories, gun-carriage works, gun-proof ranges, agricultural tractor factories, national cartridge factories, national radiator factories, aero-engine factories, magneto factories, national machine-gun factories, ordnance and filling factories in India, and a large variety of other works.

Towards the middle of 1916 another very serious crisis arose. The demand for steel for munitions and shipbuilding purposes was increasing daily, and the supplies of imported foreign iron ores necessary for its manufacture were threatened with curtailment, if not extinction, by the activities of German submarines. A very heavy toll of iron-ore boats was exacted during the war, and at this time the situation became acute. In this emergency Sir John was called upon by the Government to take up the duties of Director of Iron and Steel Production in August 1916, thus becoming responsible for the supply and distribution of steel in this country, and also for augmenting the manufacturing possibilities throughout the kingdom.

In order to fully realise the enormous labour involved in the position held by Sir John Hunter, one must study a volume compiled by Dr F. H. Hatch on *The Iron and Steel Industry of the United Kingdom under War Conditions.* It may be mentioned that the total deliveries of shell steel in this country in 1915 amounted to only 145,900 tons, while in 1917 a total of 1,806,681 was reached. The work referred to presents an excellent review of the steps which were taken under Sir John Hunter's direction for the sweeping alterations in existing plants, transport, and labour necessitated by the use of low-grade home ores in substitution of the rich imported ores, and also for the opening up of new sources of supply in different parts of the country. The great improvements introduced during

this period into the methods of manufacture, and the installation of new and up-to-date plants in existing steel-works, not only served their immediate purpose, but placed this country in a far more satisfactory position for steel production than it had ever been.

On Mr Winston Churchill becoming Minister of Munitions in 1917, he appointed Sir John a member of the Munitions Council; and on the formation of the Air Ministry Sir John was also appointed a member of the Air Council, and Administrator of Works and Buildings for that Ministry. In this latter capacity he became responsible for the entire building programme of the Royal Air Service, hitherto undertaken by the Admiralty and the War Office. Some idea of the magnitude of the work involved may be gathered from the fact that about 75,000 men were employed for many months on the various schemes. The world now knows the marvellous results achieved by the R.A.F. in wresting and holding the command of the air from the Germans in 1918, and the output of aeroplanes, seaplanes, airships, balloons, etc., which made this possible was only attained because the great national factories for their manufacture, and the aerodromes and training depots, were provided in record time, and in face of extreme difficulties of labour and material shortage.

In addition to the important duties of controlling the three departments mentioned, Sir John devoted a large amount of time to work on various committees. He acted as Ministry of Munitions representative on the Works Construction Committee of the War Priorities Committee, which was responsible for the ultimate approval and grading for priority of all constructional schemes. His experience in commercial matters generally, particularly on the steel and shipbuilding side, brought him a large amount of consultative and advisory work in connection with other departments of the Government services, and the settlement of many complicated agreements with manufacturers and suppliers of steel and other products.

In July 1917 His Majesty the King conferred on him the honour of K.B.E. He also received from the President of the French Republic the decoration of Officier Légion d'Honneur; and from the King of the Belgians, Officier de l'Ordre de Leopold; also the Order of Commander of the Crown of Italy; and Member of the Order of St Anne, with diamonds, from Russia.

## THE LATE DR ELSIE INGLIS
*(Founder of the Scottish Women's Hospitals)*

THE work of the Scottish Women's Hospitals in France, Serbia, and Russia has become historic, and even at this early date history has reserved a high place for it in the list of great work achieved in the war. It is a story of humane work accomplished entirely by women under the most appalling conditions imaginable, and involving heroic self-sacrifice and devotion to duty. That is the story of the late Dr Elsie Inglis. It was she who first conceived the idea of the Scottish Women's Hospital, it was due to her energy and organising ability that it was founded, and it was under her personal control and guidance that its work was done. When war broke out she gave up a large practice in Edinburgh and placed her services at the disposal of the War Office; but the idea of using women doctors did not at that time appeal to the authorities, and Dr Inglis found that her services were not required. It was then that she proposed the formation of a unit composed entirely of women, which should be offered to whichever of our Allies were most in need. The idea was eagerly taken up, and by December 1914 the first unit, supervised by Dr Inglis, went to Royaumont and established a hospital there for work with the French Armies. By January 1915 the second unit was ready and was despatched to Serbia, which country was in desperate need of hospitals, doctors, and nurses. In May 1915 Dr Inglis went herself to Serbia and, thereafter, assumed personal control of the work in that ill-fated country. In addition to the strenuous work of tending the wounded, whose appalling condition was almost beyond description, they had to fight a terrible epidemic of typhus which swept through the country and carried off 80,000 of its inhabitants. In November 1915 Dr Inglis and a number of her unit were taken prisoners during the great Austro-German advance, they electing to remain to look after the wounded Serbians in their charge. Other units of the Scottish Women's Hospitals which had followed the original unit were enabled to escape, and shared the terrible hardships of the Great Retreat. From November 1915 to February 1916 Dr Inglis worked at the Czar Lazar Hospital in Krushevatz, suffering great hardships and tending the thousands of wounded prisoners who were incessantly passing through the hospital. In February 1916 Dr Inglis was released, and on her arrival in England immediately set to work to raise funds for relief work in Serbia, and further funds for the Scottish Women's Hospitals. In August 1916 she accompanied the 7th Unit to a division of Serbians in the south of Russia, and opened a hospital at Medejia, in the Dobrudja, at the end of September.

They were only allowed to remain there for three weeks, before being forced to retreat. During the whole of the retreat the unit under Dr Inglis did strenuous work for the Roumanians and Russians, and it was not until August 1917 that they were able to rejoin their Serbian division. It is now common knowledge that this division was utilised to stiffen the Russians, who could not be depended upon to fight, with the result that the Serbians were in a pitiable condition and in danger of complete annihilation. Dr Inglis took up their cause with our own War and Foreign Offices, and finally effected their removal to another front. Dr Inglis was seriously ill during the whole of the summer, but refused to leave Russia until she could bring the Serbs with her. This she was able to do in October 1917, and by the end of November she and the Serbian division landed at Newcastle. On 26th November she died at the Station Hotel, Newcastle, having literally sacrificed her life in the cause she had at heart. In recognition of her great work Dr Inglis was awarded the Order of the White Eagle, 5th Class, the highest Order in Serbia; Order of St Sava, 3rd Class; Order of the White Eagle, with swords; the Russian Medal for bravery under fire; Medal for Meritorious Service; and the Medal of the 1st Class to be worn with the ribbon of St Anne.

## BARON INVERFORTH OF SOUTHGATE (ANDREW WEIR), P.C.,
Arnos Grove, Southgate

In March 1917 Mr Weir was requested by the War Office to make inquiry into the organisation of the supply branches of the Army, and in April of that year he presented his report to the Secretary of State for War. The recommendations he made included the appointment of a Surveyor-General of Supply, who was to be a member of the Army Council, and to take over from the departments of the Quartermaster-General, Master-General of the Ordnance, and Finance Member, and co-ordinate such of their functions as related to the commercial side of the business of supplying the Army. These proposals were agreed to, and Mr Weir was asked to accept the position of the first Surveyor-General of Supply.

The duties involved in this task at the War Office included the feeding, clothing, and equipment of the British armies and also of a large proportion of the armies of our Allies, and embraced the control of some of the great staple industries of the country, such as wool, leather, flax, hemp, jute, etc. He occupied this position till January 1919, when he was appointed Minister of

Munitions, sworn of the Privy Council, and raised to the peerage as Baron Inverforth of Southgate. Some idea of the extent of the operations which Lord Inverforth had to control may be gained from the fact that the approximate amounts expended on the purchase of the raw materials referred to were: £310,000,000 for home and colonial wool; £35,000,000 for kips, hides, tanning material, and leather; and £34,000,000 for flax and flax seed, jute, and manila hemp. These figures are exclusive of the large additional sums involved in making up the material.

As Minister of Munitions the great work fell upon him of liquidating the enormous commitments entered into by the War Office as well as by the Ministry of Munitions which faced the country at the date of the Armistice, and also of disposing of the vast accumulation of surplus Government property of all kinds at home and abroad. As the result of his experience at the War Office Lord Inverforth became convinced of the necessity of creating a Central Purchasing Department, whose functions it would be to undertake all the purchasing business of the various Government Departments. This policy was also strongly advocated by Lord Haldane's Committee on the Machinery of Government.

Lord Inverforth was awarded the American Distinguished Service Medal in 1919.

## ADMIRAL SIR HENRY B. JACKSON, G.C.B., K.C.V.O., F.R.S., M.I.E.E.,

37 Catherine Street, London, S.W. 1

On 1st August 1914 Admiral Jackson relinquished the duties of Chief of the Staff at the Admiralty, which were taken over by Vice-Admiral Sturdee, to take up the appointment of Commander-in-Chief in the Mediterranean, a post he was actually to take over on 1st September. Prior to the war, when Chief of the Staff, he had, in conjunction with the French naval authorities, drawn up strategical plans for the disposition and co-operation of the British and French Fleets in the event of a European war. These plans were adopted when hostilities broke out, and, as they included a compact that naval forces in the Mediterranean should be under the command of a French Commander-in-Chief, the post which Admiral Jackson hoped to take up automatically passed to a French Admiral, and he himself remained at the Admiralty and carried out special staff duties. He acted as Vice-Chairman of the special Committee set up by the Prime Minister,

under the chairmanship of General Sir Ian Hamilton, to evolve a scheme for the capture and destruction of German wireless stations abroad with the aid of Colonial troops and such ships as could be spared. The plans drawn up by this Committee were accepted and put into operation with marked success; but, owing to the inadequacy of the forces available, there were many anxious moments before success was obtained. Admiral Jackson was employed for special work on the War Office committees and the D.O.R.A. committees, one of the most important being the Committee appointed to arrange for the safety of the civil population in the event of an invasion. He also served on the Committee of the Royal Society for Scientific Investigation required by the Admiralty and War Office. To him was entrusted the drawing up of the general strategy for our Eastern expeditions, his recommendations for which were accepted in their entirety, and he was called in to advise on certain questions in connection with the Dardanelles expedition. On the resignation of Lord Fisher, Admiral Jackson was appointed First Sea Lord, and it was he who, in that capacity, sent the Fleet to sea on 31st May 1916, and so brought about the battle of Jutland. That decision was arrived at as a result of records obtained by our wireless direction-finding stations under Captain Round—the development of which Admiral Jackson had been keenly interested in. The facts as given by Admiral Jackson are as follows:—A careful and intelligent watch had been kept by our wireless direction-finding stations on the movements of German ships using wireless, and on 30th May an unusual number of wireless signals from enemy ships was noted, and by means of the direction-finding instruments these were located at Wilhelmshaven. This fact was reported to Admiral Jackson as First Sea Lord, and when, later in the afternoon, it was further reported that these enemy ships had changed their position a few miles to the northward, it was evident that they had left the basins at Wilhelmshaven and taken up a position in the Jade river ready to put to sea. It was that movement which decided Admiral Jackson to send our Grand Fleet to sea with all despatch, to move towards the German Bight. The result of this action is now inscribed in history. Among other valuable services rendered by Admiral Jackson was the drawing up of the strategic plans for the operations at Archangel and Murmansk, in conjunction with Admiral Kolchak; the arrangements for the escort of troops, etc., in the Indian Ocean; and the plans for the capture or destruction of the *Koenigsburg*, which had taken refuge about ten miles up the narrow Rufigi river, and necessitated the finding and employment of ships of sufficiently shallow draught to effect this.

Admiral Jackson also gave special attention to the design and rapid production of all types of new vessels and weapons, and to the disposition of

existing naval resources to meet the requirements of the Allied forces, at a time when our manufacturing resources were pressed to the utmost, having particularly in view the increasing intensity of the submarine campaign, and the hopes that the Navy might be able again to co-operate with our military forces in combined operations, and carry out offensive tactics on the Belgian coast. The time, however, during his period of office was not opportune for such co-operation. He represented the Admiralty at the Paris Conference with the Italians, at which the terms of the Alliance and questions of general strategy were decided. He also served on the Foreign Office Committee appointed to consider the future of Turkey and the Persian Gulf in the event of our winning the war. Having held the office of First Sea Lord for a longer period than any of his predecessors during the war, Admiral Jackson retired in December 1916 to make room for Admiral Jellicoe, and became President of the Royal Naval College, Greenwich. Whilst holding that appointment, he carried out some important staff and other work for the Admiralty, and took up the study of acoustics for locating enemy aircraft and the development of wireless telegraphy. At his instigation the Royal Naval College was converted for some time into a convalescent hospital for naval officers, as the ordinary work of the College had become stagnant. The College was also used as a training establishment for the R.A.F. until required for naval training purposes and War Staff courses, after the Armistice. Admiral Jackson also served on the Committee of Management of the Seaman's Dreadnought Hospital and the School of Tropical Medicine. He was created Admiral of the Fleet in August 1919.

## THE DOWAGER COUNTESS OF JERSEY

THE work of the Victoria League, of which the Dowager Countess of Jersey is President, is so well known, and its objects so widely appreciated, that no detailed reference need be made to its general principles and pre-war activities. The League was founded in April 1901 as a non-party association of British men and women, in memory of Her Majesty the late Queen Victoria, for the purpose of promoting closer union between British subjects in different parts of the world. It met with whole-hearted support from all sections of the community, and did much valuable work of an educational and personal nature. It was only natural, therefore, that on the outbreak of war such an organisation should find opportunity and full scope for important war work, both at home and in the overseas

Dominions. As early as August 1914 two special opportunities of usefulness at home presented themselves to the League, which the central organisation and the individual members seized with characteristic energy and carried through with marked success: the first, to organise the production and distribution of pamphlets in which the causes and issues of the war were set forth clearly and dispassionately; and the second, to arrange for fully qualified speakers to address meetings on the same subject in all parts of the country.

In the early days of the war the League did valuable work on behalf of the Australian, New Zealand, and Canadian War Contingent Associations. As the war progressed it soon became evident that it was necessary that neutral countries should be provided with accurate information both as to the progress of the war, the issues at stake, and the position and attitude of Great Britain not only with regard to the belligerents but to the neutral countries as well. This necessity was made the more urgent by the activities among neutrals of the "Deutsche Werkbund," an organisation which required "every German man and woman to send suitable information" every day to personal friends in neutral countries. The League therefore decided to extend the home distribution of war pamphlets, and had them translated into the various languages required, and distributed through the right channels. In addition to this, thousands of English newspapers were distributed abroad, and it is not too much to say that this dual propaganda work was of the utmost value to the country during some of the most critical stages of the war. In 1915 the League found a new outlet for its energies and undertook the task of providing hospitality and clubs for men of the Overseas Forces. The first premises opened were at 16 Regent Street, to which later a bedroom annexe was added containing eighty beds. Their Majesties the King and Queen graciously signified their approval of the scheme by desiring that this Soldiers' Club should bear their name, and accordingly it was known as the King George and Queen Mary Victoria League Club. It was soon found that this club was altogether inadequate to meet the demands made on it, and other clubs were, therefore, subsequently opened and equipped at 82 Charing Cross Road, 103 Hatton Garden, and 1A Dover Street (the old Grosvenor Club). Much continuous hard work was put in at these clubs by voluntary helpers, and their success has been fully recognised not only by the men who directly benefited but also by the Governments of all the Dominions and the Government at home. It is impossible to mention individually the names of those responsible—under the guidance of the Dowager Countess of Jersey—for the success of this magnificent work. No reference to the work, however, would be adequate if mention were not made of the services of Miss Drayton, O.B.E., who in 1916 succeeded

Miss Talbot as Secretary to the Victoria League, the Department of Agriculture having appointed the latter Chief Woman Inspector. Only those in close touch with the organisation during the most strenuous period of its existence were in a position to appreciate the value of Miss Drayton's untiring efforts.

Other Victoria League Clubs were inaugurated in various parts of the country, including one for overseas nurses at Edinburgh. All of these were conducted with the same marked success, and received evidence of the gratitude and appreciation of those for whose comfort and benefit they were installed.

The League also carried out much other valuable war work, particularly in introductions to soldiers' wives going overseas, in the provision of libraries for transports carrying wounded and disabled men back to Australia, in the organisation of over 2000 lectures to soldiers in hospitals, and in other ways, details of which are to be found in the annual reports issued by the Committee. It is to be noted, however, that the League is continuing its pre-war work on a wider and more comprehensive basis, and is setting itself to the strengthening of those many new links forged during that period of stress which are bound to have a marked and definite influence in bringing about a closer unity between British men and women all over the world.

## HIS HIGHNESS RANA SHRI MANSINHJI S. JHALA, C.I.E.,
Maharaja of Dhrangadhra

With the very high sense of patriotism which characterised the rulers of the Indian States, His Highness Maharaja Raj Saheb, in a telegram to the Government, placed the whole of the resources of his State at the disposal of the Crown immediately he learned of the outbreak of the Great European War.

The succeeding four years will always be a memorable period in the history of the State, as it witnessed in many ways the high esteem in which the administration was held by the Government. His Highness the Maharaja was decorated by H.M. the King-Emperor with the distinction of Knight Commander of the Most Exalted Order of the Star of India; and also in recognition of His Highness' services in connection with the war, he was allotted the permanent title of Maharaja, with an increase in his personal salute from eleven to thirteen guns. In addition to these honours, His Highness was appointed as Companion of the Most Eminent Order of the Indian Empire, a gracious act by His Majesty which led to very great rejoicing amongst the subjects of the Maharaja.

Recruiting was not started in Dhrangadhra until June 1918, but between then and October of the same year 128 combatants and 102 non-combatants were enlisted. To these recruits a sum of Rs. 24,310 was paid as bonus, over and above the continuance of the emoluments of the State servants who joined the Kathiawar Company. Forty-one of the horses used by the State troops were offered to the Remount Department, and were ultimately utilised as British cavalry remounts. Five large tents of the total aggregate floor space of 3436 square feet were given by the State for use as field hospitals, and a motor charabanc was given on loan for the use of the wounded soldiers' club in Poona.

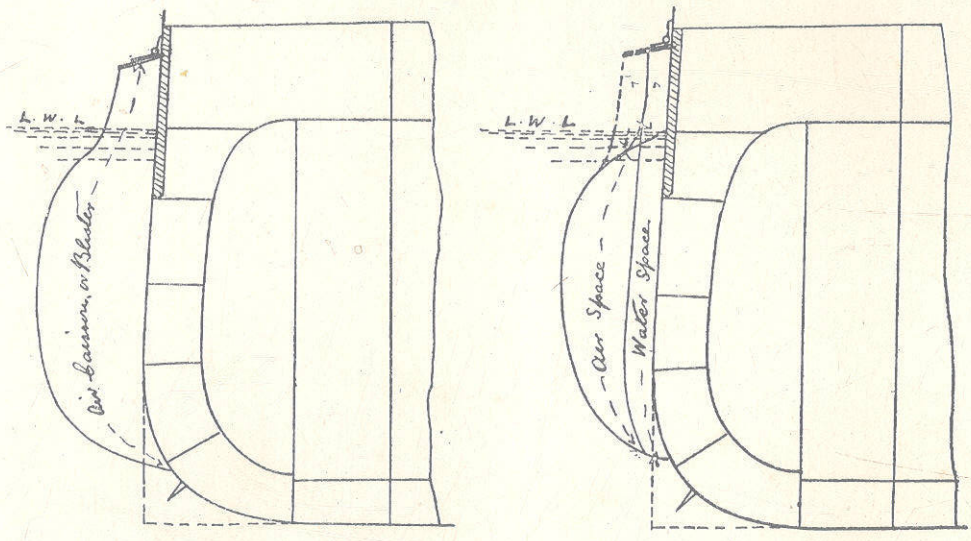
Towards the two War Loans issued in India the State of Dhrangadhra contributed Rs. 9,75,000, and the subjects of the State Rs. 5,09,305. Towards the various War Funds the State contributed Rs. 2,00,000 to the Imperial War Relief Fund, Rs. 13,000 to the Wounded Soldiers' Comforts Funds, and many other substantial gifts totalling Rs. 4,24,695. This excellent example set by the State reflected beneficially on the subjects, whose total contributions to various funds equalled Rs. 29,000, making a grand total from the State and its subjects of Rs. 19,18,000.

DR G. HORATIO JONES, D.D.S. (Am.), F.R.S.L., F.R.M.S., etc.,
Great Russell Mansions, Bloomsbury, London, W.C. 1

The exigencies of the Great War drew into service a very large number of men who had privately devoted many years of their life to problems quite outside their ordinary avocations. The urgent need of the country at that time diverted, by a swift movement of circumstance, the energies and abilities hitherto latent in the minds of men who had attained a high position in work which, although differing considerably from the needs of modern warfare, exercised the inventive faculties to a high degree.

It is a remarkable fact that so many of the devices and weapons used in the Great War were conceived and designed by men who had had no experience either in military or naval matters, a record which was probably not attained by any other country. It is a fact, however, to be deplored that in some instances inventions of great importance were not, for some official reason, either seriously considered or adopted by the authorities. The greatest menace to this country during those years was undoubtedly that of the submarine, and many minds were directed towards inventing protective devices to counteract the ceaseless campaign

made by this elusive craft. For many years prior to the war, and for the first two or three years subsequent to the outbreak, the Admiralty had persistently clung to the net defence for battleships, in spite of the recognition, by many prominent naval men, that this type of defence against the modern torpedo was worse than useless. The fact was that the Admiralty as a body did not fully realise the danger from this source. It was due to this lack of realisation, and largely to prejudice, that the proposals made by Dr G. Horatio Jones, many years prior to the outbreak of war, were not thoroughly considered and their advantages recognised. This invention is referred to in an interesting and enlightening




Modifications of external caisson or blister invented by Dr Jones.

article in the *Nineteenth Century* of August 1920, entitled, "Is the Submarine Doomed?" by Rear-Admiral Sir S. Eardley-Wilmot, K.C.B., in the following words :—"Amongst those who saw the necessity of substituting something better [than net defence] was Dr G. Horatio Jones, who nearly thirty years ago started working on this question. No necessity existed for his taking it up, for he had one of the best dental practices in London. His idea was to substitute movable steel plates for the flexible nets. About twenty-five years ago, to the best of my recollection, he wrote and asked me to come and see his projected plan of torpedo defence, with drawings and models. At various times since I have observed the modifications and improvements made in his system. They constituted a guard to the vessel greatly superior to the netting, for the steel plating remained in position when she moved, and the ingenious device fixed to the head of the torpedo for cutting through netting could not operate against a plate." Not only

were the merits of this invention recognised by the high authority mentioned, but the late Sir Edward J. Reed, K.C.B., formerly Director of Naval Construction, also regarded it as far superior to the old net defence, which was then still in vogue. The prescience of Sir S. Eardley-Wilmot was exhibited in a brochure he published in 1912, entitled, *The Battle of the North Sea in* 1914, thus, by a strange coincidence, naming the very year that war broke out. The disastrous history of the net defence method is reflected in the tragic results which accrued from an adherence to the policy in the Dardanelles campaign, where several of our finest battleships were sunk by torpedo attack, and which loss might have been obviated had the old net defence been substituted by the new device invented by Dr G. H. Jones. Moreover, many of the cruisers and battleships lost in other theatres of war would also probably have been saved. It is not the place here to enter into the political aspects of the subject, but it is impossible to ignore the results which might have accrued had those vessels in the Dardanelles been amply protected against the torpedo. The three main factors involved in the invention of Dr Jones were complete invulnerability, the ability to withstand any weather conditions, and the possibility of maintaining highest speed. The great advantage of the latter point is emphasised in the destruction of ships which occurred in the British Fleet off Gallipoli. In the operations which were being carried out, every vessel had her "improved netting" in position, and this external equipment so logged the ship down that it could only maintain a nominal speed of two or more knots an hour, thus offering a splendid target to the enemy's attack. H.M.S. *Triumph*, for instance, among several other warships, was sunk in eight minutes; and it required such appalling examples as these to bring home to the Admiralty that the net defence was, as Sir S. Eardley-Wilmot remarked in the article referred to, "worse than nothing." It was with these tragic pictures before them that the Admiralty at last resorted to Dr G. H. Jones' invention of the "caisson" or "blister," as an invulnerable means of defence. Prior to the adoption of this system, the only protection employed, beyond the torpedo nets, in all the navies of the world, consisted of internal subdivisional constructional devices disposed and fitted within a limited boundary from the submerged side plating of ships' hulls, and another method known as the "bulge" system. Against the modern torpedo, however, even these did not exempt a vessel from destruction. Dr G. H. Jones watched and studied the increasing range, power, and explosive energy of torpedoes, and determined to supersede his earlier invention of external movable steel plate guards in favour of the external fixed air and water "caisson" or "blister." This invention he submitted to the Admiralty in the early days of the war, and after various practical experiments

this new system was adopted by the naval authorities, and from then onwards a large number of battleships, battle cruisers, and other warships of the British Navy were fitted and equipped with the external blister.

ALFRED S. JUNIPER, 369 and 380 Central Markets, London, E.C. 1

FROM September 1914 until July 1917 Mr Alfred S. Juniper served as a Special Constable in the Barnet Division, guarding reservoirs, tunnels, and undertaking street patrols, etc.

In June 1916 the Central Markets Advisory Committee was formed to act in an advisory capacity to the Guildhall Tribunal, and, under the Chairmanship of Mr W. F. Bonser, he served on this Committee until January 1918; for seven or eight months he served as Secretary to this Committee, while during this time he was also rendering services to the Ministry of Food, in connection with the early stages of controlling the prices of articles classified as "supplementary meats."

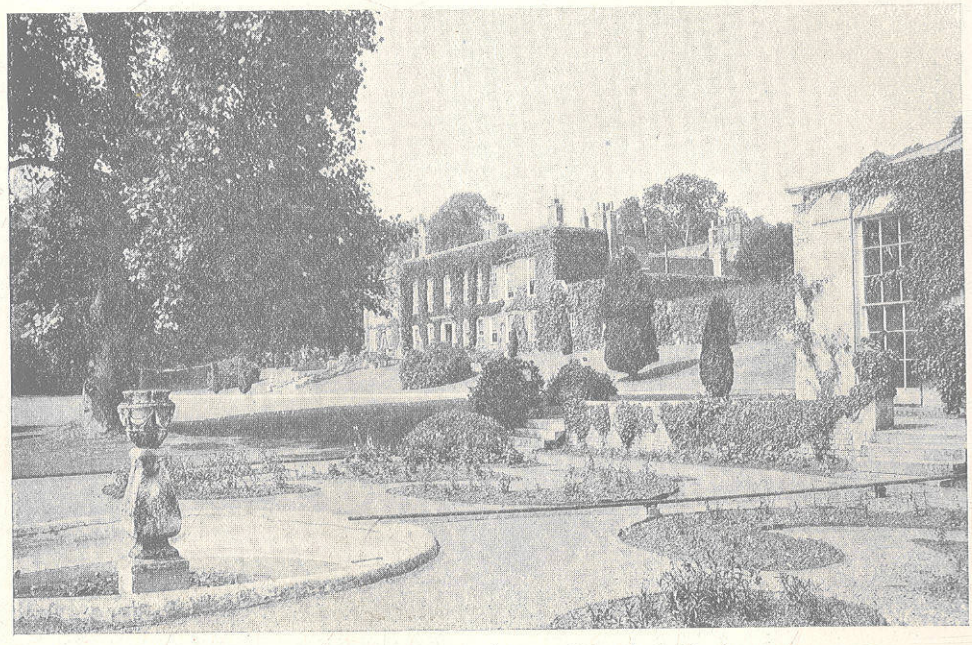
In January 1918, at the request of Lord Rhondda, Mr Juniper joined the permanent staff at the Ministry of Food as a technical adviser, giving full-time voluntary service in the Fish, Poultry, and Game Section, which was carried on under the directorship of Mr A. Towle. This work necessitated his resignation as a member of the Central Markets Advisory Committee. Mr Juniper also assisted in directing the control of prices of poultry, game, and rabbits, and in arranging the coupon valuation of these articles. The principal orders issued by this section included the Poultry and Game Cold Storage Order, the Wild Rabbit (Prices) Order, and the Poultry and Game (Prices) Order; the purchase and supply of stocks of poultry for military hospitals at home and abroad was also part of the work. He continued this service at the Ministry until the Armistice was signed, when he resigned his position at the Ministry in December 1918, having rendered practically twelve months' full voluntary service.

The following year, owing to a vacancy on the Court of Common Council, his fellow-tenants nominated him to fill the vacancy, and he was duly elected —an honour he attributes to co-operation with his fellow-tenants on many important committees during the period of war.

SIR CHARLES HALSTAFF KENDERDINE, K.B.E., 29 Cornwall Gardens, S.W. 7, and Walton, Stone, Staffs.

AGENT for The Rt. Hon. the Earl of Romney and the Lowndes Estates in Knightsbridge and Buckinghamshire; late Secretary of the Land Union, 1910–1917; and formerly agent for The Rt. Hon. Earl Sydney, G.C.B., and The Hon. Robert Marsham-Townshend; author of *Food Supply in War Time*, 1913.

Soon after the outbreak of the war Sir Charles Kenderdine devoted a

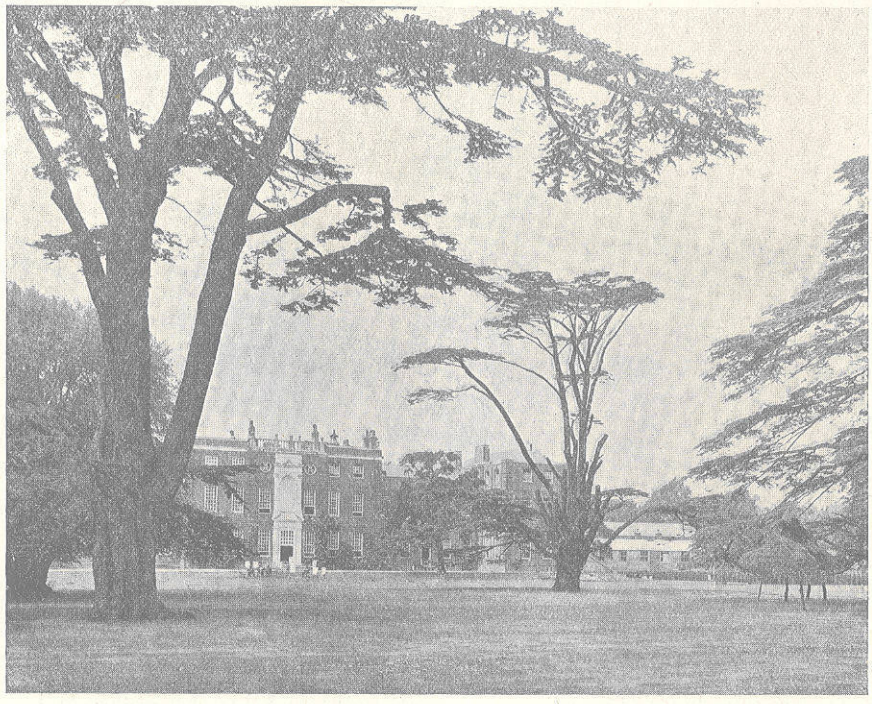


Queen Mary's Auxiliary Convalescent Hospital, Roehampton.

considerable amount of time to the preparation of schemes for disabled sailors and soldiers, especially as regards the provision of cottages and land as war memorials. The result was that several successful schemes were matured on the lines adumbrated in the earlier years of the war.

Early in 1915 Sir Charles was asked to confer with Mrs Gwynne Holford, C.B.E., who had seen some of the heavy and cumbersome artificial limbs then being provided for our disabled men, and was determined to effect improvements. To the ideas she then put forward the existence of Queen Mary's Convalescent Auxiliary Hospitals at Roehampton was due. Realising that a very complex and difficult problem was involved, Sir Charles recommended that a large institution should be established immediately to deal with it.

Roehampton House, Roehampton, then occupied by the Territorial Force Association, was selected, and, thanks to the enthusiastic co-operation of Lt.-Gen. Sir Francis Lloyd, G.C.V.O., Commanding the London District, and the generosity of the owner, Mr Kenneth Wilson, who lent it free of all rent, Sir Charles secured it for a limb-fitting hospital. Mr Pierpont Morgan also granted the use of Dover House, adjoining Roehampton House, for the use of officers. Her Majesty, Queen Mary, was then approached, and graciously gave her name and patronage to the scheme. A Committee was formed, and a public appeal for funds was



The grounds of Queen Mary's Hospital.

made; the response was world-wide, and the hospitals on no occasion lacked financial support. With the help and advice of Col. Thomas Openshaw, C.B., C.M.G., M.S., F.R.C.S., who was appointed senior consulting surgeon, the scheme progressed rapidly on the medical and surgical sides, and an exhibition of artificial limbs was organised, many limb-makers attending from France, Belgium, Italy, and Sweden. Instructional workshops for the patients, presented by Lady Wantage, the first to be organised at any hospital for our disabled men, together with an employment bureau, were initiated by Sir Charles, and were ably managed by the Hon. Secretary, Mr Dudley B. Myers, O.B.E. No less than 8172 men received preliminary training, and 4179 were

found and recommended for employment from the date of its inception to the end of October 1919. A register, known as the Central Register for Limbless Sailors and Soldiers, was initiated, and in this was recorded the name of every sailor, soldier, and airman who lost a limb. This has now become a National Register under the Ministry of Pensions, and is in the efficient hands of Miss M. M. H. Fagge.

Dental Instructional Workshop.

In December 1917 3500 men were waiting for admission to Roehampton, and though similar but smaller institutions in Scotland, Ireland, and Wales co-operated to meet the demands, it was not possible to cope with the situation. Notifications of new amputation cases were then coming in at the rate of 1350 per month, and Sir Charles went to the Pensions Minister (The Rt. Hon. John Hodge, M.P.), and explained the need for immediate expansion and further decentralisation. Sir Charles was appointed Director of Artificial Limb Supplies, and advised the extension of Roehampton by 300 beds, bringing the total to 900, which was carried out at a cost of £14,000. With the assistance and co-operation of the War Office, limb-fitting centres were opened at Leeds, Liverpool, Manchester, Birmingham, Exeter, and Netley. Charterhouse Hotel, in Charterhouse Square, E.C., was taken over by the War Office as an additional limb-fitting centre, and at a later date hostels for limbless men in Queen's Gate, S.W., and "Solna," Putney Park Lane, were opened by the Ministry of Pensions. In July 1918 the number of beds for limb fitting had increased to 2700, and the output of artificial limbs had risen from 540 to 1600 per month.

At Charterhouse Sir Charles started the first arm instruction school under the able direction of Captain the Rev. A. Rowatt Maxwell, C.F., this example being followed almost immediately at Roehampton. This school was established through the generosity of the Smithfield Committee (formed under the Chairmanship of W. F. Bonser, Esq.), who provided the premises and equipment.

Charterhouse Hospital was fortunate in securing the services of Col. Thomas Openshaw, C.B., F.R.C.S., as senior consulting surgeon.

Up to 1st November 1919 the total number of sailors, soldiers, and airmen notified as having lost limbs in the war was approximately 40,000 (including 1900 officers), and out of that total Roehampton had dealt with no fewer than 22,600 cases.

Soon after the Pavilion Military Hospital at Brighton was started for limbless cases in the preparatory stages Sir Charles suggested opening instructional workshops there, thus enabling men to continue their training without interruption. These workshops were graciously presented by Her Majesty the Queen, and invaluable work was carried out under the direction of Mr A. G. Baker, O.B.E.

In 1917 the need of a large hospital where severe facial injuries could be treated in country air was brought to Sir Charles's notice by Corisande, Lady Rodney, C.B.E., Mrs Bertram Corbet, O.B.E., and Major H. D. Gillies, F.R.C.S., R.A.M.C., then Chief Plastic Surgeon at the Cambridge Hospital, Aldershot. The late Sir Benjamin Franklyn and Sir Arbuthnot Lane were approached, and Sir Charles advised that Frognal House, Sidcup, should be acquired and a new hospital erected in the grounds, using the mansion house as an administrative block. Her Majesty the Queen again graciously consented to give her name and patronage to this scheme, and the outcome was the Queen's Hospital. It was determined that the hospital should be constructed on novel lines, and in such manner as would save labour. The design ultimately adopted was oval in shape, with open corridors and wards forming a fan radiating from it, with operating theatres and dental mechanics' workshops in the centre. The Canadian, Australian, New Zealand, and South African Medical Services were all represented here as separate units with their surgical staffs. Thanks to the generosity of the British Red Cross Society the hospital was extended from 320 to 600 beds. The accommodation proving insufficient, the Trustees of the Parkwood Convalescent Home, Swanley, generously placed that institution at the disposal of the Queen's Hospital Committee to be used as an annexe. This also was kept fully occupied with 150 patients for nearly two years.

The Queen's Hospital was admirably administered by Lt.-Col. J. R. Colvin, the Rt. Hon. Viscount Chilston acting as Chairman of the Committee. Attached to the hospital was a farm of 100 acres, which provided the necessary supplies of new milk, fresh eggs, and vegetables, the average daily requirements being 120 gallons of milk and 650 eggs. Since its inception the hospital has dealt with over 5000 cases.

Sir Charles acted as Hon. Secretary and Treasurer to Queen Mary's Convalescent Auxiliary Hospitals, Roehampton, and also to the Queen's Hospital, Sidcup, both of which were purchased, and will remain as permanent institutions. On these and other schemes he has raised and expended over £350,000 for the benefit of our disabled men.

## HIS HIGHNESS THE MAHARAJA OF KAPURTHALA, G.C.S.I.

Kapurthala, India

THE loyal support and assistance given to the Imperial Government by the rulers of the native States in India is strikingly exemplified in the services rendered by His Highness the Maharaja of Kapurthala. In addition to raising, equipping, and maintaining a regiment of Imperial Service troops which cost the State a sum of nearly four lakhs over and above the normal expenditure, His Highness gave munificently to the various war organisations both in India and in this country, and placed the resources of his State at the disposal of the Government of India. Amongst the more notable contributions may be mentioned: Rs. 25,000 sent to the United Provinces for the purchase of motor ambulances; Rs. 40,000 to the Indian War Relief Fund; Rs. 30,00,000 to the English War Loan; Rs. 2,50,000 to the French War Loan; Rs. 5,27,000 to first Indian War Loan; Rs. 4,08,000 to the second Indian War Loan; and also large sums subscribed to the Prince of Wales's Relief Fund, St John's Ambulance Fund, and the fund for providing comforts for soldiers in East Africa. Valuable gifts of horses, mules, and camels for various military and transport services were also made to the Government. The Maharaja is a great traveller, having paid many visits to England and visited every country in Europe, as well as America, Japan, and China, and one of the most highly advanced rulers in India. In Kapurthala, which is a Sikh State, he has established a People's Assembly as a first step in the direction of representative Government, and has also introduced a system of election for the State Municipalities and Local Rates Committees. Primary education has been made free throughout the State, and in certain areas compulsory education has been instituted experimentally. His Highness was created a G.C.S.I. on the occasion of the Durbar at Delhi in 1911, and, for war services rendered, his salute was raised to thirteen guns permanently, and to fifteen guns as a personal distinction in 1918. He was also gazetted Hon. Lieut.-Colonel in the British Army.

## COLONEL REGINALD JOHN KENTISH, C.M.G., D.S.O.,
12 Courtfield Gardens, London, S.W. 5

COLONEL KENTISH has served in His Majesty's Army since 1897. He served throughout the Boer War, being mentioned in despatches, receiving the King's and Queen's Medals with six clasps. At the outbreak of the Great War he was Company Commander, with the rank of Captain, and, with the exception of the brief period when he occupied the position of Commandant of the Third Army School, first at Flixécourt and then at Auxi-le-Château, and the Senior Officers' School at Aldershot, fought throughout the whole of the four and a half

The Trench Mortar Battery, 166th Infantry Brigade, 55th (W. Lancashire) Division, Vaudricourt, June 1918. Colonel Kentish (centre), officers and men.

years of hostilities in the front line. He was present at the battles of the Aisne and Meteren, also at the first and second battles of Ypres. As a Brigade Commander he commanded a mixed force in Delville Wood on the 18th July 1916, when the Germans delivered one of the greatest tactical counter-attacks of the war; his force successfully withstood this attack for over twenty-four hours, and only withdrew from its position when relieved later by fresh troops of the 2nd Division. Later on he commanded the force forming the defensive flank on the right of the Portuguese in the great German attack on Givenchy in April 1918. The force commanded by Colonel—then General—Kentish formed the left flank of the gallant 55th Division in the great defence of this town, a defence which ranked with that of the first and second battles of Ypres, and which will ever be remembered by British and French alike, for it saved the coalfields in the north-east part of France, and at the same time contributed very materially to the collapse of the enemy's plans in his great Lys offensive. When appointed

Commandant to start and organise the first of the large Army Central Schools in November 1915, at Flixécourt, he introduced a system of training known as the Theory, Demonstration, Practice system, which was afterwards adopted by the whole Army. This school was known as the Third Army Infantry School, and it was on the lines of this school that every Army School in France and in other theatres of war was eventually modelled. He instructed over 100 French officers in the system adopted, receiving the personal thanks of Marshal Foch, and being awarded the Legion of Honour for his work in this direction. In October 1916, when commanding an infantry brigade in the 3rd Division in France, he was appointed Commandant to start and organise the Senior Officers' School at Aldershot, being specially selected by Field-Marshal Sir Douglas Haig for this purpose. To this school officers of field rank to the number of 250 came from all theatres of war every three months to be instructed in the art of command and in the administration of a battalion of infantry. Over 1000 officers passed through his hands. The main and outstanding principle which underlay the system introduced was the actual putting into practice of the Napoleonic precept that the moral is and always will be to the physical as three or four is to one; and whether when dealing with training or administrative problems, every effort was made to induce the officers under instruction to keep uppermost in their minds that precept and to order their actions accordingly. The result was the creation of a splendid body of amateur soldiers, each one of whom became possessed of a close knowledge of the many ways and means of strengthening the morale of their men, and each one of whom, on returning to the field, spread a fine spirit throughout the armies which undoubtedly played a very effective part in securing ultimate victory. After the collapse of the German armies, Colonel—then General—Kentish was among those who marched with their victorious forces into Brussels. From there he was subsequently ordered to Antwerp to organise the big base camp, remaining there until he was ordered home to England in May 1919. In spite of his having served practically at the Front throughout the whole of the war, he was only slightly wounded on one occasion; he was mentioned in despatches seven times, and awarded, in addition to the honours referred to above, the 1914 Star, the Victory Medal, and the Allied Medal. The award to him of the D.S.O. in 1914 was, in military language, an "immediate award for gallantry in the field," and was one of the first five decorations of this class awarded in the war.

The official gazette of the deed for which Colonel—then Captain—Kentish gained the D.S.O. is as follows:—"On October 17, near Houplines, Captain Kentish set fire to a farm building occupied by some Germans, who had killed

and wounded many of the attacking party. It was then found that some of the wounded lying close to the door were suffering from burning débris. He organised a rescue party, and himself, at a range of a few feet, tried by firing down the passage to keep down the fire of the occupants whilst the wounded were being removed."

Colonel Kentish had, for many years prior to the outbreak of hostilities, used every endeavour to improve the relationship between the officers and men, and, by making a very close study of regimental life in all its phases, he had been instrumental in securing for the men many concessions which contributed to their contentment and welfare. One of his chief efforts during this period was the origination of a scheme for equipping the Aldershot Command with recreation grounds, and the part he played in that scheme as President of the Committee appointed by General Sir Horace Smith-Dorrien, G.C.B., then Commander-in-Chief of the Aldershot Command, in 1908 to carry out the work. The Committee worked incessantly, with the result that Aldershot is to-day probably the best-equipped town in the world. Colonel Kentish next worked to get the Aldershot system applied to the whole Army, and in this he was successful in so far that the Army Council appointed him in 1913 to report on the situation throughout the United Kingdom; and in 1914 work in some stations had already commenced, and at many other stations was about to commence when the Great War intervened.

On his return to England in May 1919 he was summoned to the War Office by Major-General Sir Charles Harington, K.C.B., then Chairman of the newly formed Army Sports Control Board, to become President of a Committee formed for the purpose of carrying on the work on the grounds, which had been interrupted in 1914. It is high testimony to the energy with which he has carried out this work that approximately 1000 grounds of all kinds, *e.g.* football, cricket, and polo, and many running-tracks, tennis-courts, bowling-greens, and children's playgrounds have been established, not only in this country but throughout the Empire. At the beginning of June 1920 he was appointed by Major-General Sir Charles Harington to organise the games of the Territorial Army, and to provide every regiment of infantry, or its equivalent in the other arms, with recreation grounds. Colonel Kentish is still engaged in this admirable and necessary work, regarding it as an essential part of the State's duties to provide a scheme of this character for our fighting men. He regards it as of even greater importance that the State should render a similar service to the thousands of young citizens who to-day are clamouring for grounds to play and keep themselves fit on. He has also written many books, pamphlets, and papers on military

subjects, and has lectured throughout the Army. His best-known work is *Leadership*, which had a very large sale during the war. There can be little doubt that Colonel Kentish, by treating this subject from a psychological point of view, has undoubtedly found the most reasonable and effective way of obtaining the best and most successful service. He is to-day, in addition to his other duties, commanding the 6th London Infantry Brigade of the 47th London Division of the Territorial Army.

## THE LATE THE DOWAGER COUNTESS OF KILMOREY,
### Lady of Grace of the Order of St John of Jerusalem

As President of the British Red Cross Society, Co. Down, the Countess, with the assistance of the local V.A.D.'s, raised a fund of over £2000, with which three beds were endowed in the Ulster Hospital in France, and a special bed in the same hospital for V.A.D.'s. The Countess also gave and endowed a bed at King George's Hospital, London. During the whole period of the war she was an indefatigable worker at the buffet at Euston Railway Station, and also at the buffet at South Down. A buffet and hostel at Greenore, Co. Louth, were organised by the Countess and some friends, and were subsequently carried on entirely at her own expense, and much valuable and needed work was done there. She also opened in Kilkeel a depot for the collection of eggs with that enthusiasm that characterised her every effort, and in two months this town headed the list for the greatest number of eggs collected in Ireland, and held that position for several months. The Countess also secured the interest of the local V.A.D.'s in the cleaning of sphagnum moss, supplying and carting the moss from the Mourne Mountains and was thus the means of despatching several tons to the distributing centre.

The Countess was one of the promoters of the Ulster Herb Association, acting as President for the Mourne district, and was thus able to collect and despatch a large quantity of medicinal herbs to the drying-shed in Belfast.

In addition to the above-mentioned activities, the Countess organised numerous concerts and entertainments for the purpose of raising funds for war charities. Was President of the Soldiers' and Sailors' Help Society, also President of the Soldiers' and Sailors' War Commissions, and one of the Organising Secretaries of the Ulster Division Fête.

BRIGADIER-GENERAL W. M. ST G. KIRKE, C.B., C.M.G., D.S.O. (late R.A.) (*Deputy Director of Military Operations, War Office*), War Office, Whitehall, London, S.W. 1

At the outbreak of war General Kirke was serving at the War Office, with the rank of Captain and Brevet Major, as G.S.O., 3rd grade. On mobilisation he was appointed G.S.O., 2nd grade, and placed in charge, under Colonel Macdonogh, the first Chief of the Intelligence Branch of the Expeditionary Force, of Secret Service and other Special Intelligence work at the front. In this capacity, and in collaboration with the War Office and the French and Belgian authorities, he built up the system which protected the Allied armies in France from spies and achieved very considerable success in the still more difficult task of penetrating behind the enemy's screen on the Western Front.

With the assistance of exceptionally gifted officers and men drawn from every walk of life, the British organisation soon became one of the most, if not the most, efficient in the world, and this under conditions more difficult than those encountered in any previous war. The growing ramifications and scope of the organisation in Belgium and France, which included the creation of the carrier-pigeon service, under Captain Waley, led to the promotion of General Kirke to the rank of Lieut.-Colonel and G.S.O., 1st grade. When Sir John French was succeeded by Sir Douglas Haig, he continued to hold the same appointment under Brigadier-General Charteris, who succeeded General Macdonogh, until after the battle of the Somme, when he was promoted Brevet Colonel and attached to the 9th Division. Later he became G.S.O., 1st Grade, of the 4th Division, commanded by Major-General the Hon. Sir William Lambton.

The latter division played a conspicuous part in the battle of Arras, performing a novel and difficult operation on the first day of the battle, when it passed through the 9th Division, advanced some five miles, and captured over forty guns. Subsequently this division performed a brilliant exploit in taking the Chemical Works and Rœux village, which had beaten off all previous attacks—a feat which was the more remarkable in that it was effected by battalions reduced in previous engagements to less than fifty per cent. of their strength, and in the case of the West Riding Regiment to only two platoons.

In August 1917 Brigadier-General Kirke was called back to the Operations Directorate of the War Office under Sir Frederick Maurice, Sir William Robertson being C.I.G.S. He accompanied General Smuts, when the latter was sent by the War Cabinet on a visit to Egypt and Palestine early in 1918, to consult with

General Allenby as to a plan of campaign in Palestine. In May 1918 he was appointed Deputy Director of Military Operations under Sir Percy Radcliffe, a position he still occupies. General Kirke received the Order of the Crown of Belgium, Officer, Legion of Honour, French and Belgian Croix de Guerre, the White Eagle of Serbia, the Order of George I. of Greece, and was mentioned six times in despatches.

## SIR WILLIAM ARBUTHNOT LANE, BART., Cavendish Square, London, W. 1

IN common with the great majority of our leading medical and surgical specialists, Sir Arbuthnot Lane in the early days of the war placed his services at the disposal of the Government. One of the most valuable and important works with which Sir William associated himself was the establishment of the Queen's Hospital at Frognal. He agreed to act as general consultant and supervisor of the movement, and it was chiefly due to his energy and devotion to the interests of the hospital that it became so highly efficient. The hospital was equipped with over five hundred beds for patients, and every facility for treating and nursing them was established in the eighteenth-century mansion at Sidcup. So excellent were the surgical arrangements that the War Office gave instructions that all facial and jaw cases should be sent to the Queen's Hospital. Sir Arbuthnot Lane also held the position of Consultant Surgeon to the Royal Army Medical Corps, and it was due to his initiative that steps were taken for the substitution of methods which, though efficient in peace-time, were not suitable under war conditions. The result of this was that the "Cambridge" Hospital was converted into a purely surgical institution, and the "Connaught" Hospital into a purely medical hospital. This reorganisation made for much greater efficiency and enabled other establishments to deal with cases which they had not been able to previously. In the summer of 1918 Sir Arbuthnot Lane, accompanied by Sir James Mackenzie, the well-known heart specialist, visited America, and did most excellent work by lecturing to large audiences on the part Great Britain had played in the war.

Sir Arbuthnot also did work of great national importance as a member of the Medical Advisory Committee to consider the form of the new medical service for the Royal Air Force. After a long period of deliberation, the Committee expressed its opinion that the new Medical Air Force Service should be organised on quite different lines from those of the R.A.M.C. Promotion should come by

medical efficiency and not, as in the R.A.M.C., by administrative capacity or mere seniority. His views on the subject were that the formation of a service in which specialisation and efficiency, assisted by a wise system of competition, were the guiding principles, would afford to the State a body of expert medical men who would rise in rank independent of the necessity of discarding the practice of their profession in order to assume administrative duties, which system prevails in the existing medical services.

Sir Arbuthnot Lane also held the position of Consulting Surgeon to Queen Alexandra's Hospital, Millbank, as well as to a large number of civil hospitals in London.

## LIEUT.-COLONEL PERCY ROBERT LAURIE, D.S.O., 83 Queen's Gate, S.W. 7

Acting on the outbreak of war as Military Secretary to General Sir Charles Douglas, G.C.B., Chief of the Imperial General Staff, War Office, Lieut.-Colonel (then Captain) Laurie resigned his appointment in order to accompany the 3rd Cavalry Division to the Western Front in the capacity of Assistant Provost-Marshal. On 1st October 1914 he left for Ostend with his division, and took an active part in the expedition to relieve Antwerp, before being appointed, in August 1915, as A.P.M., Cavalry Corps Headquarters. Later he was appointed A.P.M. of the 8th Corps Headquarters on its formation, and Provost-Marshal, 2nd, and later 4th, Army Headquarters, accompanying the 2nd Army in the final advance through Germany to Cologne.

In 1915 Lieut.-Colonel Laurie was awarded the D.S.O., obtaining his Brevet Majority in the following year. He was made a Chevalier de l'Ordre de Leopold in 1917, a Commandeur de l'Ordre de la Couronne in 1918, and he was awarded the Croix de Guerre Belge, with Palms, and Croix de Guerre Français in the same year. On no fewer than six occasions he was mentioned in despatches, and he was present at the first, second, and third battles of Ypres, the battle of Loos, the battle of the Somme, and all the main British offensives on the Western Front.

### SIR FREDERICK WILLIAM LEWIS, Bart., 9 Harcourt House, Cavendish Square, W. 1

Sir Frederick entered the business of Christopher Furness & Company in 1883, and has been associated with the firm of Furness, Withy & Company all his commercial life. He was closely associated with the late Lord Furness in all his shipping ventures, and is now Chairman of that company and numerous steamship and other companies, all of which are associated with the parent company. As the war progressed, one of the greatest difficulties against which the Government had to contend was that of the utilisation of shipping to the best advantage for the country's needs. With the continued and increasing depredations caused by the enemy submarine campaign and the dangerous decline in the output from the shipbuilding yards the problem became more and more complicated. The allocation of vessels for the transport of troops and munitions and for carrying on the import and export trade of the country was, under these conditions, a work of great anxiety, and involving the highest discrimination. In 1916, therefore, the Government called to its assistance some of the most experienced men in the shipping industry, and formed the Shipping Control Committee, with Earl Curzon as Chairman. Sir Frederick was invited by the British Government to become a member of this Committee, together with Lord Faringdon and Sir Thomas Royden, Bart. When the Ministry of Shipping was formed this Committee was transferred to that body under the Chairmanship of the Rt. Hon. Sir Joseph Maclay, Bart. Sir Frederick is still a member of the Committee.

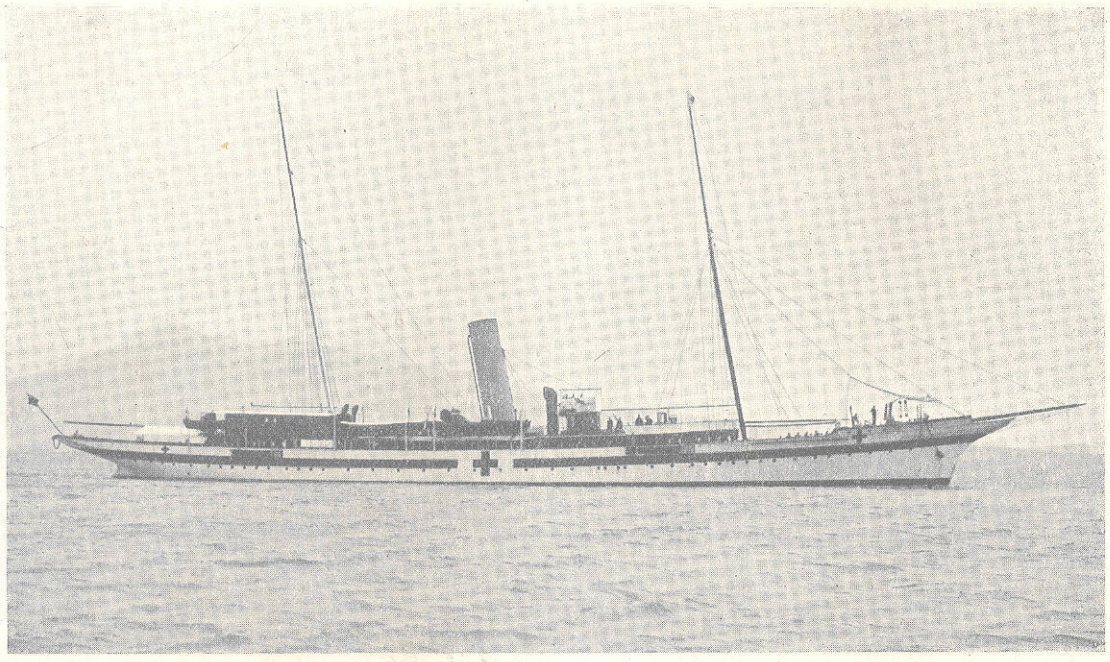
For services in connection with the supply of shipping for the requirements of the Allies during the war Sir Frederick was awarded the Belgian Order, Commander de l'Ordre de la Couronne.

Sir Frederick is also a member of the Committee of Lloyd's Register of Shipping.

### SIR THOMAS LIPTON, "Osidge," Southgate, London, N. 14

'The best of luck to you in the Great Adventure. I would that my birth certificate were of more recent date, so that I could march with you." In these words Sir Thomas Lipton wired to the officers and men of a Territorial regiment

when their commanding officer asked him to send a few lines, wishing them "God-speed" before they left England for France in the autumn of 1914. And, in any attempt to describe the different forms of national work in which Sir Thomas engaged practically from the first moment of the war, there can hardly be a better way of beginning than to quote this telegram. Sir Thomas, who was to his regret above fighting age, was not long in discovering that there was at least one small way in which he could help, and it is a tribute to the energy with



Sir Thomas Lipton's yacht *Erin* in Eastern waters.

which he moved in the matter that on the 5th August, before the British Army had been mobilised twenty-four hours, Sir Thomas had cabled for the *Erin* to return at once from New York; and by the end of the month—within four weeks of the outbreak of hostilities—not only had the famous yacht been brought back to England, but she had been transformed from a luxurious pleasure-yacht into a fully equipped hospital ship, and was lying at Southampton in complete readiness to be called out as soon as she might be needed for service with the Allies.

The *Erin* had only to wait a few days before being requisitioned, when she was commissioned for her first war service early in September 1914, when Sir Thomas conveyed aboard her to France the large hospital unit which had been so ably and quickly organised by the Duchess of Westminster. This unit, of which Major Douglas was commandant, comprised a staff of leading London surgeons

under Dr Gordon Watson and Dr Dudley Stone, between thirty and forty specially selected hospital-trained nurses, and seventy orderlies. Here is the translated account of the party's arrival at Havre, as it was written by a French war correspondent at the time: "When, in her recently adopted rôle as a hospital ship, the famous Lipton yacht *Erin*, so familiar to French people because of her frequent visits in the past to the south coast of France, steamed into Havre, she certainly formed a very different picture from that which she had presented in peace-time, but a few weeks before. Her decks were piled high with lint, cotton-wool, sheets, blankets, medicines, antiseptic solutions, and everything else likely to be of use to a hospital unit at work in a war zone. To accommodate so large a number of doctors, nurses, and orderlies, every available inch of her passenger space had, of course, been requisitioned. As the first independent British hospital mission to set foot on French soil, the party drew forth enthusiastic cheers from the inhabitants of Havre when, men in khaki and women in hospital nurses' blue, they disembarked with Sir Thomas." This first short war journey of the *Erin* to France was merely a prelude to that other more important and responsible war work with which, shortly afterwards, Sir Thomas Lipton was entrusted by the British Red Cross for so many months in the Balkans. Serbia, of course, will always be the name that first occurs to the mind in connection with the different war activities for which the hospital ship *Erin* was utilised. To-day, throughout the length and breadth of Serbia, Sir Thomas Lipton is known as "Chika Toma," which, being interpreted, means "Uncle Tom," a sobriquet given to him in token of their appreciating the jovial spirit in which Sir Thomas moved about so freely among them in the tragic year of 1915. When the typhus epidemic was at its worst in the hapless country, Sir Thomas repeatedly plied his boat, often through mined seas, between Marseilles and Salonica, carrying large British and American Red Cross parties of doctors, nurses, and orderlies, together with medical supplies, to this sick and suffering people, and the Serbs have never forgotten the debt of gratitude they owe him. Working for the Serbs specially appealed to Sir Thomas because, as he said, "they are the little fellows in the big fight."

These onerous transport duties, however, by no means represented the sum-total of his work for Serbia. Not content with conveying hospital units to and from Salonica, he accompanied each unit up into the stricken country, and himself travelled all over the typhus-ridden areas at great personal risk, doing all he could to cheer the doctors and nurses, and even visiting the patients in many of the hospitals he inspected in the different plague-spots. Sufficient space is not available here to describe in detail the personal adventures of Sir Thomas in

Sir Thomas Lipton with nurses on board the *Erin*.

Serbia. The Austrians frequently bombarded Belgrade while he was staying there, and on one occasion a shell fell within a few yards of him as he was driving along the main street, killing several women before his eyes. How narrowly he escaped death during those enemy bombardments was shown when the house next door to that where he slept was struck by a shell and completely demolished. The risks he ran from typhus, again, may be gleaned from the fact that on one return voyage from Salonica alone the *Erin* brought back the effects of eleven dead nurses. In addition to these dangers on land, there were also dangers at sea, the dangers which had to be faced from the submarine menace as the *Erin* carried her precious human freight to and fro. On at least one outward journey the hospital ship just missed being torpedoed shortly after leaving Malta; while on yet another trip, when bound for Naples from Salonica, with a number of sick nurses and doctors aboard, the *Erin* was fired at four times as she passed through the Straits of Messina at midnight. Sir Thomas himself was standing on the bridge with the captain at the time, and the occurrence naturally gave rise to a great deal of anxiety and alarm. The *Erin* at once put about and waited until the morning, when a boat was sent out from shore to her with an explanation and an apology. The firing party, it transpired, were unaware that the *Erin* was a hospital ship, and orders had been given that no ship was to be allowed to pass through the Straits of Messina at night.

The story of the American Dr Donnelly, who was the first person to greet Sir Thomas as soon as he set foot on Serbian soil, depicts the conditions under which work was carried on in those terrible times. He found the doctor waiting to meet him when the hospital train, conveying his first contingent of doctors and nurses from Salonica to Nish, drew up at Ghevgeli, the frontier town which divides Serbia from Greece. Dr Donnelly explained his presence in Ghevgeli by the fact that he was now in charge of nearly 2000 patients, all of whom were lying ill with typhus in a large tobacco factory which stood near the railway and had been hurriedly converted into a hospital to meet the urgent needs of the hour. The Lipton hospital train was delayed for three hours, and Sir Thomas, with some of the doctors and nurses of his party, went with the American doctor to inspect this improvised hospital, taking with them as large a supply of medical comforts as they could spare.

The scenes they then witnessed were tragic almost beyond description. The bedding accommodation being totally inadequate, many of the patients had to be placed three in a bed, and in more than one case Sir Thomas drew the doctor's attention to dead lying among the living. Other patients, again, were lying on straw. Dr Donnelly's difficulties were further increased through the

fact that, out of the twelve American nurses he had brought with him to this hospital, no less than nine had contracted typhus, and he had consequently to rely on Austrian prisoners for his chief nursing assistance. Not realising the risk from infection, Sir Thomas visited these sick nurses and talked with them for some time. As a prelude to the work which lay ahead of this first Lipton party, there could hardly have been a sorrier picture, and it was with heavy hearts that they retraced their steps to the station. Dr Donnelly and two of his nursing sisters, Miss Tetrault and Miss Fry, taking half an hour off from their incessant all-day and all-night toil, went to see Sir Thomas off. Before bidding him farewell, the doctor explained that, Ghevgeli being near the Bulgarian frontier, the town was occasionally attacked by Bulgarians, even though Bulgaria had not at that time formally entered the war. For the protection of his hospital, as America was then a neutral nation, the doctor had found it wise to fly an American flag. Unfortunately, the only flag he had was a very small one, and at once Sir Thomas remembered a much larger one he had aboard the *Erin*, which would be of infinitely greater use. Accordingly he at once telegraphed to his captain at Salonica for this flag to be sent to Dr Donnelly, in order that he might fly it from his hospital in case of invasion.

Two or three weeks later, when his first relief expedition in Serbia was drawing to its close, Sir Thomas telegraphed to the doctor, stating the time at which his train would pass through Ghevgeli on the return journey, and expressing the hope that he and the same two nurses who had seen him off would come again to the station to let him know how they were faring. But when his train reached Ghevgeli there were no nurses to meet him—and no Dr Donnelly. In his place Dr Hodge, an assistant from the hospital, was waiting to break the news that the two nurses in question had fallen ill with typhus, and, what was worse still, Dr Donnelly had died from this disease on the previous day. Dr Hodge sorrowfully described how, on being seized with the dread illness, Dr Donnelly had dictated nine letters, one of them to his wife, saying as he did so that if he recovered he would look after these letters himself, but, if he died, they were to be "given to Lipton" to despatch to his friends. Before he died, the doctor left yet another injunction. His last request was that, as a good American, he would dearly like the American flag, which had been sent from the *Erin*, to be wrapped round his body and buried with him in the event of his death. Needless to say, Sir Thomas carried out his dying friend's wishes, and on a return visit to Serbia he had a special photograph taken of Dr Donnelly's grave at Ghevgeli, at the head of which a large stone cross had been erected. This photograph he sent personally to the doctor's widow in America.

During his repeated missions to Serbia, Sir Thomas Lipton was constantly thrown in close touch with the Serbian Prince Regent, the Crown Prince Alexander, of whose devotion to his people in their terrible sufferings and distress he saw much at first hand. In recognition of his war work, Sir Thomas was the first Britisher to be awarded the Grand Order of St Sava. He was also made a Knight of the Serbian Red Cross, and presented by the municipality with the freedom of the city of Nish. By bestowing on him the highest honours at their disposal, the little kingdom of Serbia thus tried to show their gratitude as far as they could. In speaking of those tragic times, however, Sir Thomas prefers to dwell on the valour and bravery of the humble peasant-soldiers, and on the spirit of self-sacrifice and devotion which he saw exhibited on all sides by the countless English and American nurses who served as ministering angels to the Serbians in their dark hour of trial.

The bravery of the women who volunteered for work in Serbia, in the face of every kind of privation and hardship, is a favourite theme with Sir Thomas. Time and again he has told the story of the late Dr Elsie Inglis and of many other women doctors and nurses not so well known. One fine piece of war work which touched him deeply was that done by Mrs Hanken Hardy, the wife of an English Wesleyan minister, whom Sir Thomas first met by chance one day as he walked through the streets of Kragujevatz, which town was then the headquarters of the Serbian Army. On being invited by Mrs Hardy to visit her "hospital," he found that it was nothing more than a large, ill-equipped, barrack-like prison, which, owing to the general lack of accommodation, was the only building this brave woman could secure to harbour no less than 600 patients. Every available inch of space was occupied, and, indeed, several typhus-stricken Serbs were lying in the street outside, waiting for admission. In these comfortless surroundings Mrs Hardy was toiling night and day, almost unaided, her own room being a dingy prison cell. She had no doctors or nurses to aid her to nurse these 600 patients back to health and strength. The sole help she received was from Austrian prisoners who acted as orderlies.

As long as the *Erin* was a hospital ship, Sir Thomas never left her. Then, when from the standpoint of the Allies there was no longer a Serbia to go to, he gave up his yacht to the British Admiralty to be used on special war service; and it was while serving as an armed patrol in the Mediterranean that the gallant little craft was sunk by a German submarine, six of her crew being drowned. The *Erin* in her way had been one of the most historical yachts of all time. As "rigged" and run by her owner in peace-time, she was the most palatial pleasure-craft the world has ever seen. From King Edward and the Empress Eugenie

downward, Sir Thomas had entertained aboard her all over the world many famous people who have helped to make the history of our time, but this final chapter in the yacht's history was by far the finest and most historical chapter of all. The *Erin* had sunk more than one submarine, and in every way acquitted herself wonderfully well for a craft of her size while on patrol work in the Mediterranean. Her last service, however, was probably the finest and most poignant of all. It was the night of 26th April 1916. The *Erin* was carrying a naval contingent over to Syracuse, when the end came. "At about seven o'clock in the evening," says one of her original crew, "we received what was then becoming the far too usual S.O.S. signal, 'Vessel in distress,' and this time, of course, it was the same story. The Huns had been up to their dirty work again. The *Erin* at once forged ahead, and in double-quick time was alongside the sinking vessel, which proved to be the s.s. *Nasturtium*, a hospital ship with ninety wounded aboard. The poor fellows this time were even more than usually helpless, and we had hard work to prevent some of them in their delirium from trying to jump over the side of the ship. The *Nasturtium* had been struck amidships right in her bunker, with the result that all her coal had fallen out at one swoop. For two hours the *Erin* lay abreast the ship, picking up the wounded, and it was when all but the last batch had been safely conveyed on board in a heavy sea, and while coffee was being served to them by some of my shipmates, that we heard a terrific explosion. We knew only too well what it meant. At that moment I was downstairs alone in what used to be the drawing-room, although since the dismantling of the ship it didn't look like a drawing-room. I was preparing more and more beds, not only for the wounded, but for many of the *Nasturtium's* crew who had been badly scalded. The whole ship was plunged in darkness, and in fear of my life I rushed up the companion stairway into what used to be called 'the music-room,' to find the doors on each side of it had been jammed and would not open. I struggled hard with those doors, and at last managed to burst open one of them. I then rushed out, making my way over the bridge-rails along the promenade decks, and, just in time, scrambled into the last of the lifeboats to leave the sinking ship. The lifeboats had a hard job to pull away from the *Erin*, owing to the suction of her sinking. Within a very few minutes she was gone. What made things seem worse for us, if possible, was that the submarine that sank her was still near by, and the Germans aboard cheered—yes, actually cheered—as the *Erin* went down."

The loss of a yacht so full of exciting memories was naturally a great blow to Sir Thomas, but, until Armistice Day, he remained an energetic war worker, and in no sphere did he render more useful service than in endeavouring to do all he

could for the different American military and medical missions which passed through London on their way to France. Any incoming American, from the most distinguished general to the humblest V.A.D., was made to feel at home at "Osidge," the country house on the edge of North London where Sir Thomas has lived for so many years.

## SIR LEONARD WILKINSON LLEWELYN, K.B.E., Malpas Court, Newport, Mon., and 88 St James's Street, S.W. 1

In the early days of the war Mr Leonard Llewelyn undertook the work of recruiting in the Rhondda Valley, and was also a member of the Executive of the Welsh Army Corps, which recruited and equipped the now famous Welsh Divisions. He possesses a wide knowledge of Continental and foreign engineering, having visited all the large engineering works in France, Belgium, and Germany, the United States, Canada, and South America, as well as, at a later date, Japan, India, and China. Combined with this also, his extensive experience as Manager of the Cambrian and other mines, and as General Manager of the Cambrian combine, induced Mr Lloyd George, when in June 1915 he organised the Ministry of Munitions, to call upon Mr Llewelyn to assist him in the urgent matter of raw materials. The difficulties which were being encountered in obtaining efficient supplies were very great, and were largely due to the absence of organisation, and it was recognised that the successful prosecution of the war was dependent on ample supplies of metals being available. Mr Llewelyn was offered and accepted the responsible position of Director of Raw Materials, and upon him devolved the onerous task of securing adequate supplies of all metals required for the manufacture of guns, shells, explosives, etc.; and so successful was he in solving this problem that, in the course of his first Parliamentary review of the work accomplished by the Munitions staff, Mr Lloyd George stated that he had saved the State over fifteen millions of money.

Soon after Mr Lloyd George left the Ministry of Munitions, Sir Leonard became Deputy Director-General of Munitions Supply, as well as Director of Materials, his new duties consisting largely of co-ordinating the innumerable works employed by the Munitions Department. He was also asked to concentrate his energies on the supply of non-ferrous metals, including copper, spelter, zinc, platinum, tungsten, and many others; and throughout he pursued his policy of fixing maximum prices and controlling the sale, purchase, and use of metals.

The Government also made the fullest use of Sir Leonard's unique mining knowledge, and he was one of the principal members of the Central Coal and Coke Supplies Committee, and of other bodies directing the operations of the great coal and coke industries for war purposes.

In recognition of his services, the following honours were conferred upon Sir Leonard Llewelyn :—In August 1917 he was made Knight Commander of the British Empire for services rendered in the Ministry of Munitions ; in October 1917 he was made Chevalier of the Légion d'Honneur by the French in recognition of services rendered in regard to the supply of munitions for France, and promoted to the dignity of Officer in March 1918 ; also, in September 1917 the provisional Russian Government conferred upon him the Order of St Stanislas in recognition of the most valuable services rendered by him in connection with the supply of munitions to Russia. He was also made an Officer of the Order of Leopold by the King of the Belgians.

Sir Leonard Llewelyn generously contributed large sums to war charities, hospitals, and other organisations, and was a member of the Hon. Advisory Committee of the Exhibition of War Models, held in January 1918 in aid of the War Seal Foundation. He is High-Sheriff for the county of Monmouthshire, J.P. for the county of Glamorgan, holds the Silver Medal of the Royal Humane Society for saving life, and is a director of several large steel, iron, and coal companies.

## MAJOR SIR PHILIP LLOYD-GREAME, K.B.E., M.C., M.P.,
8 Wetherby Place, London, S.W. 7

Prior to the war Sir Philip Lloyd-Greame had a large practice at the Bar, where his wide knowledge of all matters pertaining to mining laws, which, with characteristic thoroughness, he had obtained first hand, led to his becoming a leading junior counsel in all cases relating to that industry. He also specialised in agricultural matters, and in conjunction with Mr Turner wrote the *Blue Pamphlet* on agricultural policy, many of the recommendations contained in which being subsequently embodied in the Government's land and agricultural legislation. It is interesting to note in this connection that Major Lloyd-Greame was the author of the first Agricultural Wages Board Bill. At the outbreak of the war Mr Lloyd Greame immediately rejoined the Inns of Court O.T.C., and was given a commission in the Yorkshire Regiment. After a period of service with that

unit, he assisted Lord Feversham to raise the "Yeoman Rifles," with which battalion he proceeded to France and took part in much of the heavy fighting, during which he was awarded the Military Cross, after having been recommended for an even higher honour. Promotion soon followed, and as Brigade Major he rendered valuable service, earning the highest commendation from his military chiefs. He was subsequently invalided home, broken in health, and for many months was incapacitated for military service. He was later appointed a Staff Officer at the War Office, and was soon transferred to the Ministry of National Service, where his ability and grasp of industrial problems gained for him rapid promotion, becoming Conjoint Secretary to the Ministry. The high value placed on his services by the Government was indicated by the fact that, in order to continue his work at the Ministry, Major Lloyd-Greame was compelled to refuse a high staff appointment on the General Staff in France. He was subsequently returned to Parliament for the Hendon Division of Middlesex by a majority of over 11,000, and in that capacity has served on the Select Committee on National Expenditure and the Select Committee on Profiteering. Major Lloyd-Greame is regarded as one of the coming men in politics. He was created a K.B.E. in 1920, and appointed Parliamentary Secretary to the Board of Trade in August 1920.

## COMMANDER OLIVER STILLINGFLEET LOCKER-LAMPSON, C.M.G., D.S.O., R.N.V.R., M.P.

At the outbreak of war he had been Member of Parliament for the County of Huntingdon for nearly five years. Almost immediately he crossed to France, and interested himself in the question of the employment of armoured cars for war purposes.

In November 1914, when armoured cars were being introduced as a fighting weapon, he was offered the command of a squadron, which then consisted of nine officers and about 110 men. In accepting this position, Commander Locker-Lampson was determined that the officers and men under his command should be the best-trained and best-equipped unit of the force, and he spared no efforts to attain this end. With this object in view, he arranged for them to proceed in small parties to Whale Island and pass through the proper naval training. When they had completed a course of instruction they were sent to Cromer for coast defence duty for about six months, where they spent the time in training and getting

thoroughly efficient while the unit of Lanchester armoured cars which were to be manned by them was being completed at Birmingham.

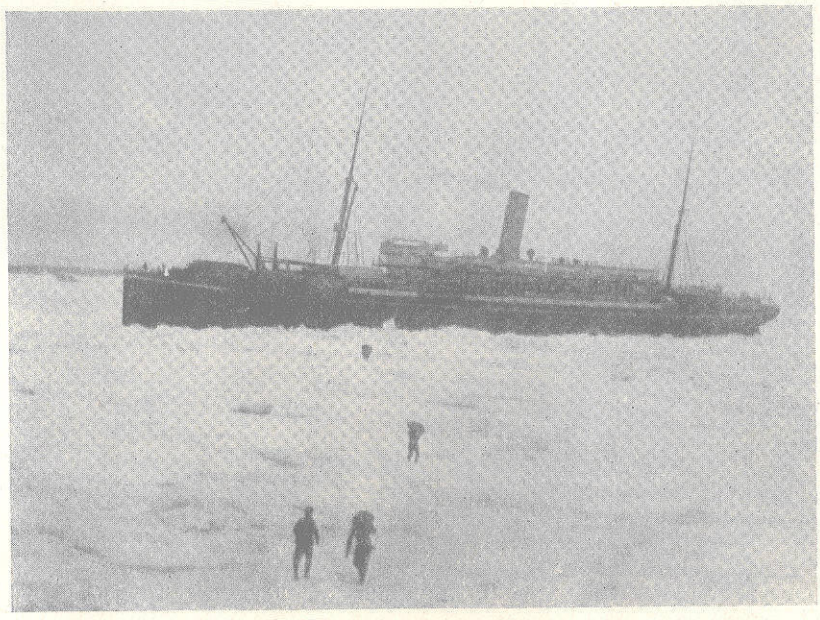
The greater part of the cost of these cars was borne by private funds at Commander Locker-Lampson's disposal, to which he himself contributed large sums from his own private purse; and throughout the war he constantly made every effort to render the force more efficient and better equipped. His aim was not only to have under his command the best men he could pick, but also to provide everything possible for their personal comfort and welfare.

Commander Locker-Lampson with group of officers in Belgium.

Every man in the unit which was formed in 1914 was a picked volunteer, and 65 to 70 per cent. of them were Ulstermen, as it was originally intended that the unit should be attached to the Ulster Division.

This division, however, was not ready for foreign service at the time when the German forces nearly broke through at Ypres in 1915. In April of that year, however, a portion of the armoured car unit stationed at Cromer was urgently sent for to take part in the fighting, and left at a moment's notice. The remainder of the unit followed in July, Commander Locker-Lampson (till then Lieutenant-Commander) receiving his promotion at the same time. The Squadron remained in France and Belgium until the autumn of 1915, but the nature of the fighting in that area was such that they were found to be not so useful there as they would prove to be elsewhere, and, an urgent request coming

at that time from the Russian military representative in Paris for the services of this unit in Russia, permission was accorded to leave for that country, and arrangements for the transference of the Squadron were forthwith commenced.



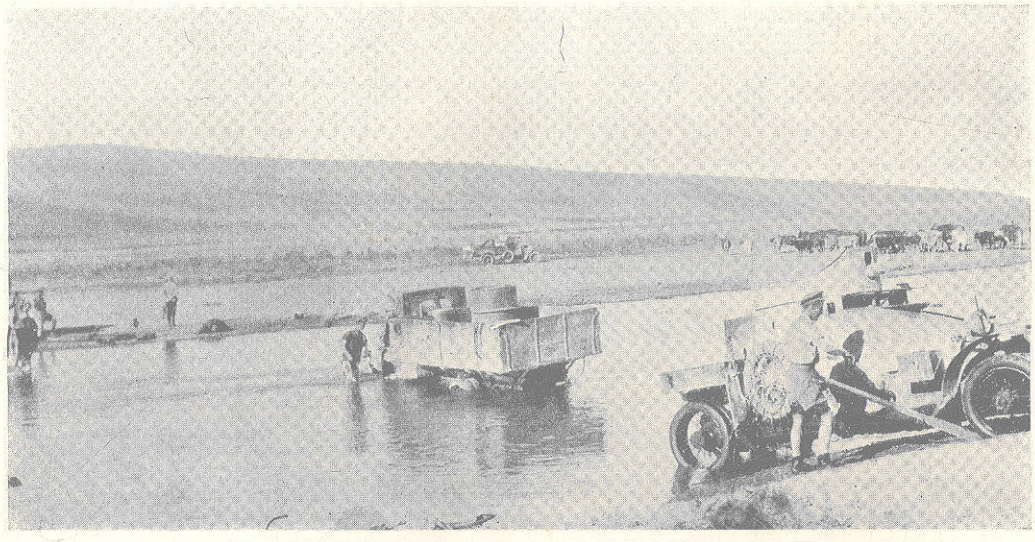
Transport, with Armoured Car Division, ice-bound in the White Sea.

It was at this time that Commander Locker-Lampson showed his ability for organisation, and also getting things done quickly. In less than six weeks the whole unit was brought back from Belgium and quartered in London. It was necessary, however, to enlist recruits, in order to bring the men up to the requisite number of 700, and the number of officers was also increased. More cars were built or allotted to the unit, and adapted for their special purpose. The whole force was re-kitted with Russian and tropical kit, although the clothing required by the unit for the winter of Russia was such as had never previously been provided by any British military tailor. On the 2nd December 1915 the whole unit set sail from Liverpool for Archangel, but, in spite of the speed with which it had been reorganised and re-equipped, weather conditions were adverse ; terrible storms were encountered (the worst known for fifty years), and the ice closed over the White Sea earlier than usual.

This series of reverses resulted in the unit arriving in the Arctic too late to get through to Archangel before the spring, and it was feared that the whole force would be locked in there or have to return to England. Owing, however, to the indefatigable work and ingenuity of Commander Locker-Lampson, the difficulties and delays in disembarking were overcome. The men were, therefore, gradually landed at Alexandrovsk (now Murmansk), and occupied their time in drilling, salvage work, and in conveying guns across the ice from ice-bound ships to the railhead about 400 miles away. Later, when the ice had yielded in the spring of 1916, the unit reached Archangel. It proceeded, *via* Moscow, to the south of

Russia, being welcomed everywhere with the greatest enthusiasm, and fêted and entertained all along the route. They were then stationed for a short time at the Cadetski Corpus at Vladikavkas, prior to leaving for service. A portion of the unit, under Lieutenant-Commander Belt, was despatched to Persia, and the other portion to Turkish Armenia Both divisions did very good work and saw heavy fighting against the Turks and Kurds, and returned to their winter quarters only for rest and necessary repairs. They were then ordered to the Dobrudja, where they took part in the great Roumanian retreat in the winter of 1916. The unit lost several men as prisoners or wounded, and was the last to leave Roumania, covering the retreat of the Russo-Roumanian forces, and crossing the Danube only a very few minutes before the bridge was blown up behind them by the evacuating forces.

For the next few weeks the unit remained at their repair base refitting, awaiting the arrival of fresh stores and cars from England, and recuperating after a long spell of fighting. Leaving the force at the base, Commander Locker-Lampson paid a brief visit to England, carrying despatches. He then returned to Petrograd, and was in that city when the Revolution broke out in March 1917.



Armoured cars fording a river in the Caucasus.

At that time Englishmen were unmolested in Russia, and throughout the period of his service in that country he had always carefully avoided involving himself or his unit in any differences of opinion existing among the various Russian factions. He was thus able to move freely about the city and do much good work.

In June 1917 the armoured cars were despatched by M. Kerensky to the Galician front, in order to take part in the great advance on Erzezany, and Commander Locker-Lampson left Petrograd to join them. The attack ended in the disastrous retreat of the Russians in July–August 1917, and, as on almost every previous occasion, the cars proved their inestimable value to a retreating army. For this purpose the unit was split up; men, cars, maxims, and guns being scattered over various parts of the line to stiffen the Russian resistance. The

Transport of gun across the snow in Russia.

excellent discipline and courage exhibited by the force had a conspicuous effect on the demoralised Russian troops. Another section of the men were sent into the trenches, and occupied the main road. Commander Locker-Lampson himself kept in touch with every part of the force, travelling from one section to another, and taking no small part in the fighting which was in progress. This retreat, one of the greatest in history, took place over a front of 300 miles, and the Russian forces travelled 310 miles before they stopped. The retreat occupied three weeks, and was, perhaps, the most disorderly and shameful disaster in the records of any nation. The Russian spirit had been completely undermined by the spread of Bolshevist propaganda among the troops, and it was solely owing to this that such a catastrophe occurred. Only a portion of the Cossacks and the

artillery could be relied upon, and these, with the British armoured cars, fought night and day during the critical month of the retreat. In every trench, along every road, in every village and town, the Britishers were the last to leave, and, when the flight stopped on the Russian frontier, near Gusyatin, the armoured cars had been subjected to such rough treatment that not a single car remained intact. Officers and men had also suffered greatly during the retreat, but the unit was able to re-form, and was re-equipped with new cars at Proskurov.

The Revolution in Russia spread to such an extent, and the condition of affairs became so critical, that it was thought advisable to recall the whole unit to England and to abandon the material and stores to the Bolsheviks, against the Commander's wishes. Accordingly, in the late autumn of 1917 the force left Russia, and was transferred to the Army for service in Mesopotamia. The first draft was embarked in January 1918, and Commander Locker-Lampson was to accompany the third draft in March. He was, however, taken seriously ill, and, although the sailing of the draft was postponed for a short time, he was still unfit to travel, and the force sailed without him, the unit being placed under the control of another commanding officer. Commander Locker-Lampson was, therefore, offered a position under the Ministry of Information, and arrangements in regard to the details of this work were still under discussion when the Armistice was signed.

Commander Locker-Lampson received several decorations in respect of his war service. He was made an Officer of the Order of Leopold in October 1915 for his services with the Belgian Army in Flanders; in August 1917 he received the C.M.G. for his work in organising and equipping and commanding the armoured cars; and in July 1918 he received the D.S.O. for his services with the Russian armies. He was also awarded by the Russian Government the Order of Vladimir (3rd Class) with Crossed Swords, and the Order of Vladimir (4th Class) with Crossed Swords.

## THE MARCHIONESS OF LONDONDERRY, O.B.E., President and Director of the Women's Legion, Londonderry House, Park Lane, London, W. 1

THE evolution of the Women's Legion, from its inception in 1915 to the perfected and many-sided organisation of over 40,000 trained and efficient women workers at the date of the Armistice, presents a record of national war work which must hold a foremost place in any just appreciation of the magnificent efforts of the women of England to serve their country in the greatest crisis in its history.

With its history and achievements the name of the Marchioness of Londonderry will always be inseparably united. To her belongs not only the credit for its inception, but the even greater credit of its direction and administration during the various phases through which it had to pass, and that breadth of conception which rendered it a " national " work in the highest sense of the word.

Early in the war a Women's Emergency Corps was founded for voluntary service, and, affiliated to it, the Women's Volunteer Reserve.

Lady Londonderry was invited to fill the honorary position of Colonel-in-Chief of this Reserve, which appointment she accepted. That organisation, essentially an emergency and voluntary one, may be said to be the forerunner of the Women's Legion. Its constitution was of a quasi-military nature, and in the rapidly moving events of those days it soon became evident that, if the mobilisation of the women workers of the country in adequate numbers and their development into a disciplined force were to be attained, a complete reorganisation of the W.V.R. would have to be effected. In April 1915 a committee had been formed to forward the project of the employment of women on the land, and the success of that movement made it increasingly obvious that its legitimate expansion would have to be on different and less military lines.

In July 1915 a meeting was held at Londonderry House, as a result of which the Women's Legion came into existence. Its objects were: (1) to provide a capable and efficient body of women whose services could be offered to the State as might be required to take the place of men ; (2) to train and provide disabled sailors and soldiers with useful and permanent employment ; and (3) to organise such industries as might be useful to the State. This new constitution differed in two fundamental principles from the old : voluntary work, except in so far as the organising and administrative staffs were concerned, was abolished, and the training given and the discipline to be enforced were to be attained by other than military methods. The outstanding object was to be able to replace working men called to the colours by working women, trained and capable of taking their places. The founders of the Women's Legion were amongst the first to take the long view and to realise how great would be the necessity for such replacements, and, also, to grasp how vitally important it would be to have these women as paid workers in order to enforce the necessary control and maintain the necessary high standard of work. The Legion was to comprise several sections, of which the W.V.R. was to be the first. Later, however, the W.V.R. reverted to its former status, and the Legion developed on its own lines with conspicuous success

The women land workers, originally placed by the committee of the W.V.R., became the Agricultural Section of the Women's Legion, which did notable and,

indeed, invaluable work, and enabled our home-grown supplies not merely to be maintained, but to be increased to a very considerable extent. It selected women physically fit for the work and trained them in agriculture and horticulture, taught them to plough and to use motor tractors for all agricultural purposes, the tending and care of stock, and the economic harvesting of crops. Important work was also done in fruit-bottling for the N.A.C.B., and the growing, collecting, and marketing of herbs for medicinal and other purposes. Other and equally important sections were organised and developed, notably the Cookery Section, he Motor Transport Section, the Canteen Section, the General Section, and the

The Marchioness of Londonderry leading the Women's Legion.

Ambulance Section. The first two of these sections, *i.e.* the Cookery Section and the Motor Transport Section were soon taken under military control, though their internal organisation, as sections of the Women's Legion, remained intact, which is eloquent testimony to the workmanlike efficiency of the Legion under Lady Londonderry's directorship.

Originally the Cookery Section was intended to supply trained cooks for service in convalescent camps, but as the demand grew and their efficiency and capability were demonstrated, members were drafted to base depots, hospitals, training camps, as instructors to the Army male cooks, while large drafts were eventually sent to France and other theatres of war. Over 30,000 members of this section were employed, and they earned high praise for themselves and the parent Legion from the authorities. No mention of this section would be complete without reference,

necessarily inadequate, to the splendid work of Dame Florence Burleigh Leach, the Commandant, who eventually became Chief Woman Controller of the W.A.A.C. The Motor Section was originally intended to act as an ambulance corps to work in France in co-operation with the Red Cross. It was soon found necessary, however, to develop the section on its own lines as a part of the Women's Legion, and Miss Christobel Ellis, C.B.E., was appointed the first Commandant in April 1916. The Women's Legion was authorised to organise a body of experienced motor drivers for work in England in conjunction with the War Office, and its first trained members were detailed for service with the Army Service Corps. Once the section was firmly established, recruits came in in great numbers, and by September 1916 there was scarcely an area, a command, or a battalion in the country which had not been supplied with women drivers and mechanics. In February 1917 both the Military Cookery Section and the Military Motor Section were incorporated in the Women's Auxiliary Army Corps. In November of the same year, however, the Secretary of State decided that the W.A.A.C. should not comprise a chauffeur's section except for service abroad. The Women's Legion, therefore, resumed its Motor Section and continued to administer it under the Q.M.G., the members enrolling for duty with the Army Service Corps. The Ambulance Section did valuable and continuous work as hospital orderlies at Londonderry House Hospital from the time of its inception in 1914, where the "Brown Ladies," as they were called, earned for themselves a high reputation by their self-effacing devotion to duty. The Canteen Section supplied another much-needed want. Its object was to supply a paid staff of trained women to take charge of the catering, cooking, and management of canteens for munition workers, and this they did with marked success at Woolwich Arsenal, Messrs Armstrong, Whitworth & Company's works, Elswick, and in the various big munition areas. It also ran the Grosvenor House Canteen for the staff of the Food Controller's Department. The Scottish branch of the Women's Legion, under the presidency of Lady Inverclyde, was an important development of the parent Legion which did valuable and successful work on lines parallel to those already indicated, except that the workers were all voluntary. As the organisation extended to meet the demands made on it, local branches were inaugurated in many counties in the United Kingdom, in which individual work calling for the highest praise was performed.

It will be obvious from the necessarily brief outline given here that the Marchioness of Londonderry not only set herself a task of great magnitude, but carried it through with such conspicuous success as to earn her country's sincere gratitude.

In addition to this responsible and strenuous work, Lady Londonderry converted her town house into a hospital, as an annexe to Mr Shield's house, 17 Park Lane, for the use of colonial officers. She also equipped Seaham Hall, Co. Durham, as a hospital devoted to Durham miners, as well as to Lord Londonderry's own regiment, the Royal Horse Guards.

The Woman's Legion has now been converted into an Old Comrades' Association, the principal objects of which are to encourage the spirit of comradeship and *esprit de corps* which characterised the relation of all its members during the war, to organise clubs and other activities for their benefit, and to maintain an organisation ready to assist the country in an emergency. Lady Londonderry, moreover, regards it as not the least important object of the Association to encourage high ideals of loyalty and service which will lead to the highest standard of conduct in the home, and serve the best interests of the State.

T. MARTIN LOWRY, D.Sc., Medical School, Guy's Hospital, London, S.E. 1

PRIOR to the war Dr Lowry had been engaged for nearly twenty years in chemical research, tending mainly in the direction of physical chemistry, and including a special study of the properties of crystals. On the outbreak of war he occupied the position of Professor of Chemistry at Guy's Hospital Medical School, and, in common with the heads of many other laboratories, engaged in the production of anæsthetics under a scheme arranged by the Royal Society War Committee to provide supplies which were urgently needed but were no longer available from commercial sources.

In September 1915, when it had become evident that the programme of high-explosive shells could not be filled by the use of picric acid and tri-nitro-toluol, and would have to be supplemented by very large dilution with ammonium nitrate, Dr Lowry was called in to advise the Department of Explosives Supply in connection with the unexpected qualities which this salt had developed when manufactured and handled on a large scale. In order to secure the fullest possible knowledge of this difficult material research work was carried on, with the help of Mr R. G. Early, B.Sc., and Mr J. N. Vowler, as a result of which it soon became evident that the laboratory at Guy's was likely to become an important centre for information as to the properties of this salt.

The scheme for the use of ammonium nitrate as the backbone of the British programme of high explosives was developed at the Research Department,

Woolwich, where the earliest experiments were made on the dilution of T.N.T. with this material. These mixtures, known under the general name of " Amatol," were of various composition, but the most effective was one in which the limited supplies of T.N.T. were diluted with four times their weight of ammonium nitrate and converted into 80/20 Amatol. This increased the weight of explosive five-fold, and at the same time gave a far more powerful explosive than undiluted T.N.T. Great credit must be given to Lord Moulton for having recognised, at a very early stage, the fact that this mixture must form the mainstay of our programme in a prolonged war calling for the largest possible output of munitions.

Shortly after the Ordnance Board had been reconstituted as the Ordnance Committee Dr Lowry was appointed, in February 1916, as an Associate Member, with special reference to the production and use of Amatol as a high explosive. Amatol possessed the important property of being extremely insensitive to percussion, and unless very great care and skill were employed, a shell filled with Amatol was liable to detonate only partially, thus scattering the explosive about unburnt after the detonation of the shell. For this reason, when 80/20 Amatol first came into supply its efficiency, as judged by the weekly proof of filled shell at Shoeburyness, was distinctly below that of picric acid, and it was therefore still necessary to manufacture the latter on the largest scale that circumstances would permit. As the result of continuous experiments on methods of manufacture and filling the conditions required for successful detonation became clearly known, and steps were taken to ensure that these conditions were maintained in supply. During the latter part of the war, therefore, Amatol was recognised as being not merely equal to picric acid, but in certain respects conspicuously superior. In particular, its insensitiveness, which at first had given rise to a distressing proportion of partial detonations or " duds," was now recognised as being a most valuable characteristic, giving, as it did, almost complete protection from premature explosions in the bore of the gun, and an unusual degree of safety in the case of filled shells stored in a dump or near a battery and exposed to enemy fire or to attack by aerial bombs. It was indeed a commonplace experience in the shell-filling factories that one shell could be exploded within a few inches of another without setting off the latter, and that it was even possible for the side of a shell to be dented by a flying fragment without causing the contents to explode. The logical result of this work was that, in the spring of 1918, when the efficiency of Amatol had been clearly established, the manufacture of picric acid was abandoned, except as a reserve, and the Lyddite factories were closed or diverted to other uses, on the ground that Amatol was cheaper, safer, and easier to manufacture, while its military qualities were equal or superior to those of the more

costly explosives. More than this, however, Amatol needed only about one-fifth of the tonnage of imports required for the manufacture of picric acid. The saving effected by the substitution of this explosive for picric acid may be placed at not less than £1,000,000 per month, and the diversion to other uses of a large and costly picric acid plant after producing only a few hundred tons of product was a business-like and economical step, for which every credit should be given to the Department of Explosives Supply.

During the spring and summer of 1916 Dr Lowry took part, at Lord Moulton's request, in two series of investigations into the manufacture of ammonium nitrate explosives for use in trench warfare. The result of these experiments was the adoption of 80/20 Amatol as the standard explosive for this purpose as well as for shell filling. On the establishment of a separate Trench Warfare Committee in April 1917 Dr Lowry was appointed as an Advisory Member, with special reference to the use of Amatol in trench warfare and in aerial bombs.

In the spring of 1916 he became associated directly with the manufacturing operations of shell filling. At that time the Chilwell factory had already reached a very advanced stage, and was producing a substantial output of filled shells. It had, however, been found necessary to provide additional capacity in a series of new National Filling Factories, and at this juncture Lord Moulton, who was extremely anxious that the use of 80/20 Amatol should not be prejudiced by incomplete knowledge of its properties, brought Dr Lowry into touch with Sir Eric Geddes, to whose department he then became attached as technical adviser on this new explosive. From July 1916 to September 1917 he acted as an outside adviser to General Milman, the Controller of Gun Ammunition Filling, who took over from the authorities of the Medical School some of the laboratories at Guy's Hospital and provided him (Dr Lowry) with a staff of chemists to assist in the scientific control of the manufacture and use of this explosive in the filling factories. Laboratories were also erected in the new National Filling Factories, and chemists appointed at his request, in order that the knowledge gained by research and experiment might be applied effectively in the daily routine of the factories.

In September 1917 General Milman urged Dr Lowry to undertake an executive post in his department, and appointed him as Director of Shell Filling, a post which he occupied until the conclusion of the war. This appointment involved the technical control of the manufacture and handling of some thousands of tons of explosive per week for use in shells. A little later the filling of naval mines, of trench warfare bombs, and hand grenades was also transferred to the

department, which thus became responsible for the " loading " of practically the whole output of high explosives in this country.

On the entry of America into the war an urgent demand was received for information as to the methods of shell filling which had proved so successful in England. At General Milman's request Dr Lowry, accompanied by Major Armstrong, visited the United States in October 1917 in order to communicate to the officers of the Ordnance Department there the methods of manufacture which had rendered British ammunition equal to, and in some respects superior to, that supplied to any of the other armies in the field, including that of our French allies. He was then able to recommend to the U.S. Ordnance Department a new method both of manufacture and of filling 80/20 Amatol which had only recently been developed in this country. His recommendations were accepted immediately, and approval was given to adopt it as the standard American explosive. A series of five large filling factories were erected to handle the work on a scale at least as extensive as the total output in this country. New factories were also installed for the manufacture of the requisite ammonium nitrate, one of which, built at a cost of 14 million dollars, had reached an output of 200 tons per day at the conclusion of the war. On the completion of this work Dr Lowry brought back to England an American mission, composed of eight technical men under an Ordnance officer, to study English methods, and from this time onwards a very complete liaison was maintained between the two Services. It is of interest to note that whereas Amatol in England was costing about 8d. per lb., our French allies, who maintained to the end of the war their faith in picric acid or " melinite " as the best military explosive, were purchasing this material in America at a cost of something like a dollar per pound.

At a later stage in the war a complete liaison was finally established between the English and French shell-filling departments. During 1918 Dr Lowry received two French missions to England, and directed two English missions to the French shell-filling factories. The result of these visits was that, after satisfactory trials, Amatol was adopted in France as an alternative to picric acid.

In connection with his technical work on shell filling Dr Lowry visited Italy in the spring of 1918 as a member of General Savile's mission. During this visit a complete liaison was established with the technical officers of the Italian Ministry. Later in the same year he received two Italian missions to England, one to study the English methods of filling shells with high explosives, and the other in connection with the manufacture and use of " mustard gas." For the services rendered by Dr Lowry in this connection he was appointed an Officer of the Italian Order of St Maurice and St Lazarus.

During the last months of the war an important development took place in the transfer to the shell-filling department of the urgent work of supplying to the armies in the field shells charged with " mustard gas," which became so vital a factor in the final stages of the struggle. The manufacture and handling of this material were attended with very grave risks. Indeed, in France the charging of shells with this gas had led to over a thousand casualties in one factory alone. Profiting to some extent by French experience, greater precautions were taken in England, but in the early stages of manufacture one worker reported sick for every nine rounds supplied to the army. In connection with this new work Dr Lowry arranged a technical mission to France in June 1918 ; the suggestions then made had the effect of completely changing the methods employed in this country for charging the gas into shells, and revolutionised the conditions prevailing in English gas-charging factories. In the autumn of the same year he accompanied General Milman on a visit to all the factories in France engaged in this work, and heard from the Director of one of these factories the compliment, " Il y avait un de ces Anglais qui connait rudement ses affaires." Shortly after his return to England the value of his work on mustard gas was recognised by an appointment as an additional member of the Chemical Warfare Committee.

The use of Amatol as a high explosive has now become a definite feature both of the British and American Services, and in each case a method of manufacture and filling, which Dr Lowry had nursed from its earliest infancy, has been recognised as the most suitable one for regular use after the war.

STANLEY GORDON LUKER, M.D., B.C., F.R.C.S. M.R.C.P., Assistant Gynæcologist to the London Hospital ; late Major, R.A.M.C. ; Surgical Specialist, No. 39 Stationary Hospital, B.E.F., France ; 21 Park Crescent, Portland Place, London, W. 1

On 4th September 1914 Mr Gordon Luker was gazetted Temporary Lieut., R.A.M.C., and a month later he proceeded overseas with the 7th Division as M.O. i/c 3rd Heavy Brigade, R.G.A., and with that unit he landed at Zeebrugge, going into action at Ypres on 19th October and remaining there until 21st November. The Heavy Brigade was then transferred to Sailly, and was engaged in the fighting between Sailly and Fleurbaix. In March 1915 the Brigade was moved to Laventie and took part in the battle of Neuve-Chapelle. After that period of heavy fighting, Mr Luker received orders to proceed to the Boulogne

Base, and was posted temporarily as Surgeon-in-charge of the Anglo-American (Lady Hadfield's) Hospital, No. 5 B.R.C.S., and continued to serve in that capacity until March 1916. He was then posted for duty to No. 15 Casualty Clearing Station at Hazebrouck, and subsequently transferred to No. 10 C.C.S., stationed near Poperinghe. He remained with that unit as Surgeon until 14th September 1916, when he received orders to proceed to the Somme, and was eventually posted to No. 36 C.C.S. as extra surgeon. After a period of duty with that unit during the heaviest of the fighting, Mr Luker was posted to the 2/2nd London, No. 55 C.C.S., stationed near Albert, and served with them from October 1916 till April 1917, when he received orders to take a " surgical team " to the aid of No. 58 C.C.S. during the battle of Vimy Ridge. After that successful attack he proceeded to the forward area to assist No. 18 C.C.S. Following two years' continuous service in the fighting lines, Mr Luker was detailed as Surgeon Specialist to No. 39 Stationary Hospital (1st Army) at Aire. During the battle of Passchendaele, however, his services were again requisitioned for the front line, and he undertook the charge of a surgical team to assist first No. 10 C.C.S. and subsequently No. 11 C.C.S., remaining in the forward area until November 1917. At the battle of Cambrai, in November 1917, he accompanied a surgical team to assist No. 3 C.C.S. (3rd Army), stationed at Grevillers, and remained with them during that action. In December of that year he returned to take up his appointment again as Surgeon Specialist to the 39th Stationary Hospital, and continued to carry out the duties of that office until March 1918, when the Germans launched their big offensive. At the beginning of those operations Mr Luker was again despatched with a surgical team to assist No. 56 C.C.S. during the German attack on Albert. He retreated with that unit to Doullers, where they were attached to No. 3 Canadian Stationary Hospital, and later to Etaples, to No. 24 General Hospital. Eventually he returned with his team to No. 39 Stationary Hospital, and on 11th April 1918, as a result of the German attack on Armentières, Merville, and Hazebrouck, this stationary hospital was converted in a night into a casualty clearing station, and remained as such during the whole of the summer, being then only about six miles behind the fighting line. During July, as further heavy attacks were expected, three-fourths of the equipment of the hospital were sent to Desvres, and the remaining fourth (100 beds) was organised as the Fifth Army Advanced Operating Centre for specially severe cases. The staff consisted of two surgeons, one anæsthetist, one physician, and a mobile bacteriological laboratory and a mobile X-ray unit. Mr Luker subsequently took part in the British advance in Flanders, and in October returned to No. 39 Stationary Hospital, which was moved to Lille. He was next

detailed to take over the Hospital St Sauveur and to organise it as a combination of a casualty clearing station and stationary hospital for the 5th Army. After over five years of strenuous service, Major Luker returned to England and was demobilised in March 1919.

THE RIGHT HON. THE COUNTESS OF LYTTON, Lady of Grace of the Order of St John of Jerusalem, Knebworth House, Knebworth, Herts

From October 1914 Lady Lytton was a regular worker at All Saints Hospital, Vauxhall Bridge Road, until the whole of the staff moved to Nottingham Place, where they continued to nurse and care for the wounded under her control. In 1915 Lord Dartmouth placed his large house in Charles Street, W., at the Countess's disposal, and a hospital was started there under the British Red Cross, and over eighty beds were provided, with a staff of between twenty and thirty under her supervision. The hospital did valuable work, and was kept open until the end of the war.

The Countess of Lytton with group of nurses at Knebworth.

The Countess was elected a Vice-President of the British Red Cross, Hertfordshire Division, and, in view of the ever-increasing needs for accommodation, Lady

Lytton converted her country house at Knebworth into a hospital, with Miss Gertrude Spencer, R.R.C., as Matron, and Sir Thomas Parkinson and Dr Barrington Ward as Visiting Physician and Surgeon respectively. Under this efficient control a great deal of wonderful curative work was done at Knebworth, and many hundreds of badly wounded cases were dealt with. The hospital was entirely staffed by the local V.A.D.'s.

### SIR CHARLES W. MACARA, Bart., 33 York Street, Manchester

For many years prior to the war Sir Charles Macara had been one of the most prominent men, not only in the cotton industry, but in dealing with industrial affairs generally, and on the outbreak of hostilities he threw the whole weight of his influence and energy into the work of assisting the nation during those critical times. His contributions on the subject of industrial conditions and their relationship to capital have undoubtedly proved a beneficent power, and during the war assisted in maintaining a favourable attitude between the two. He recognised from the outset the colossal task with which the Government was confronted, and that it was essential that the assistance of the most experienced practical men should be taken advantage of; while he strongly advocated that all existing organisations of capital and labour, and indeed of every kind, should be at once brought into requisition in preference to forming new ones to deal with the crisis. It was in this direction that his influence was so advantageous in connection with the cotton industry, an industry which was called upon to fulfil demands of an unprecedented nature and extent. In spite of the fact that the cotton trade was very severely affected by the interruption or diversion of shipping facilities, the materials required for the use of the Army, Navy, and Air Force were forthcoming, due chiefly to the efficient organisation and co-ordination of the various producing centres. In this work Sir Charles Macara was one of the leading spirits.

In addition to his great work in the directions referred to, Sir Charles, besides serving on committees in connection with the National Register and the Royal Naval Air Service, assisted the Government unofficially with his great knowledge and abilities. He has also made many contributions to the literature associated not only with the cotton industry, but also in regard to social and industrial reform.

COLONEL W. R. J. M'LEAN, C.B.E., "Queenscourt," Hurlingham Road, London, S.W. 6

After twenty-five years' commissioned service in the Auxiliary Forces, Colonel M'Lean volunteered on 4th August 1914 for foreign service, and despite his fifty-six years was passed fit. With the rank of Major, he recruited and trained over 600 men for the 1/13th Battalion of the London Regiment, and later recruited, organised, and nominated the officers for the 2/13th Battalion, which he commanded, and the strength of which permitted the transfer of 520 men to other units.

In September 1914 he was promoted to the rank of Lieutenant-Colonel, subsequently raising the 3/13th Battalion of the London Regiment, and at the request of the Mayor of Kensington assisted in raising the 22nd Battalion Royal Fusiliers, by a nucleus of officers and other ranks from the 2/13th. Colonel M'Lean converted his battalion from home to foreign service, and trained it for the offensive until March 1916. He acted as Brigadier during the absence of the Brigade Commander, and obtained for his battalion the special commendation of the Divisional Commander for discipline. Unfortunately, however, he was prevented from accompanying it to France, and was appointed to organise and command the 16th York and Lancaster Regiment, the first Transport Workers' Battalion, which involved the difficult task of successfully introducing soldier labour to work at the docks, etc., and of disarming the suspicions of both dockers and labour leaders. From one battalion, Colonel M'Lean's command was increased to five, and he was recommended for promotion to Brigadier-General, and appointed by the Military Secretary to select all candidates for nomination to commissions and to recommend all officers deserving promotion. At the end of 1917 his command had again increased from five to nine battalions; and he was mentioned in despatches for valuable service, and requested by the Port and Transit Executive Committee to address civilian dockers with a view to inspiring them to greater efforts. In the following year he was appointed, by General Sir Nevil Macready, A.A.G. and Inspecting Officer of the Transport Workers' Battalions, which had further increased to thirteen battalions, with a total strength of 19,000 all ranks.

Gazetted C.B.E. in June 1918, Colonel M'Lean established a school of instruction at Croydon for potential officers possessing the necessary civil qualifications but little military knowledge, and personally examined every candidate on

parade. He conducted 119 inspections on behalf of the War Office and the Committee, and was entirely responsible for the work of all the Transport Workers' Battalions. In addition he prepared all interim Reports and the Final Report and Statistics, which obtained the special commendation of the Prime Minister and the War Cabinet.

The Transport Workers' Battalions were almost self-supporting, and during their existence handled over 27,000,000 tons of cargo. It has been acknowledged by the authorities concerned that without them it would have been impossible to maintain the flow of traffic and supply the country with sufficient food, or the forces with munitions. The Director of Organisation expressed to the Chairman of the Port and Transit Executive Committee his complete satisfaction at the ability and success with which the battalions had been handled, and subsequently stated that Colonel M'Lean had done excellent work in command of the battalions.

MRS ESTHER F. M'LEAN, M.B.E., Commandant, London 154, British Red Cross, "Queenscourt," Hurlingham Road, London, S.W. 6

ESTABLISHING the Fulham and Putney Division of the B.R.C.S. before the war, Mrs M'Lean played a leading part in its maintenance and conduct, not only in providing the rent of the divisional offices, but also much of the furniture, and assiduously applied herself in every possible way to its interests. During the war she gave up her home in order to devote the whole of her time to the Red Cross, and took a leading part in many activities.

Mrs M'Lean is fully qualified in first aid, nursing, hygiene, sanitation, and every branch of the profession, and was awarded the Red Cross proficiency badges and bars in all subjects, the merit badge, the St John's medallion with three bars, two labels in each subject for nursing, home hygiene, and sanitation. She also holds the five years' service badge of the British Red Cross Society.

Throughout the war she recruited and trained 1010 nurses and general service members for various hospitals. Of these, no less than 695 were awarded the Associates' badge for two years' service, and 87 the Members' badge for five years' service. 540 members served in military and auxiliary hospitals; 244 on special and general service at home and abroad. 286 voluntary workers were mobilised; 55 were on air-raid service, and the remainder on miscellaneous work

of all kinds. Mrs M'Lean herself was on air-raid duty at Lavender Hill Police Station and Wandsworth Police Station at the beginning of the war, and subsequently established and equipped her own air-raid dressing station in Putney, being herself called out nine times in one week. Her spare hours were devoted to personal interviews with matrons of hospitals where members of her detachment were working; to organising and conducting classes in first aid, nursing, and cookery; to organising fêtes, concerts, and bazaars, at the Bishop of London's Palace and elsewhere, in order to raise money for the work. She installed a club recreation room and choral society for the benefit of members, and also sent several thousand garments to headquarters stores and military hospitals. Mrs M'Lean subsequently endowed two beds in the War Memorial Hospitals of the Division in the name of the Red Cross.

### JAMES BORROWMAN MACLEAN, C.B.E., M.Inst.C.E., M.I.Mech.E., M.I.N.A., A.I.E.E., 37 Walbrook, London, E.C. 4

Previous to joining the Ministry of Munitions in the early days of the war, Mr Maclean held a high position abroad at one of the ship-repairing stations of Messrs Blandy Brothers & Company, and it was, no doubt, during the time he held this position that he acquired his very pronounced faculty for organisation. On coming to London he was invited by Sir Henry Fowler, K.B.E., to join the staff at the Ministry of Munitions, and in 1916 he was appointed Director of Shell Production. In this capacity Mr Maclean was responsible for the technical aspect of the production in all factories other than the National Shell Factories, which were under the control of the Munitions Committees.

In 1918 the production of shells had attained so high a figure that it was actually in advance of the immediate demand, and Sir Glyn West, the Member of Council for shells, guns, small arms, and small-arm ammunition, asked Mr Maclean to accept the position of Controller of Gun Manufacture. This he accepted, and, as will be seen from the chart on p. 167, the output of guns, during his period of office, rose to a remarkable extent. The great increase was, undoubtedly, due to the extraordinary technical and organising ability of Mr Maclean, under whose direction the application of new engineering methods to gun manufacture and repair enabled the manufacturers, who were for the most part quite inexperienced in ordnance work, to achieve a very high output.

Later in 1918 Mr Maclean was appointed Technical Adviser to Sir James Stevenson, Bart., then Member of Council for the groups responsible for the production of all ammunition, guns, machine guns, small arms, trench warfare material, machine tools, as well as for area organisation. This appointment Mr Maclean held until early in 1919, when, at the express request of Mr Churchill, he succeeded Admiral Sir A. G. H. Moore, K.C.B., as Controller of the Mechanical Warfare Department.

In this capacity he became a member of the Tank Board, presided over by General Seely, and was responsible for the construction of tanks. Had it not been for the timely intervention of the Armistice, the organisation which he had initiated would have resulted in an output far in excess of any that had previously been considered possible. During his term of office at the Ministry, Mr Maclean was a member of the Munitions Works Board, and he also served on the committee appointed to investigate the size and work of the staff of the Ministry of Munitions.

## MRS FLORENCE MACDONOGH, 225 Ashley Gardens, S.W. 1

After the first battle of the Somme, in 1916, Mrs MacDonogh actively associated herself with work for the Australian troops who were either in training or had returned from the Front wounded. She devoted the whole of her time to their welfare, and kept her flat open day and night for their reception. This self-sacrificing work she carried out throughout the period of the war, bearing the whole of the expense herself. A number of wounded men she took to Sidmouth in order to recuperate, and by the exercise of her kindness and attention was able to rescue a number of the men from the evils of war-time life. She also saw that in these cases the men were sent back home to Australia. The correspondence which she received from many of the men justified the title which was given to her of the "Mother of the Boys." Mrs MacDonogh also spent much of her time in the Monte Video camp, attending to their welfare and comfort. The admirable work which she performed included, in addition to the services referred to, efforts to rectify many of the injustices and indifference to which not only the Australians, but practically all the troops, were subjected in those times of stress and anxiety. These services were recognised by letters of appreciation from Sir Frederick Milner, General Griffiths, General Jess, and others.


Production of guns during the years 1914–1918 1, total guns; 2, new guns; 3, repaired guns

### LIEUT.-GENERAL SIR G. M. W. MACDONOGH, K.C.M.G.,
Highwood, Mill Hill, N.W.

On the outbreak of war between Great Britain and Germany, and prior to the despatch of the First Expeditionary Force to France on 16th August 1914, General Macdonogh was appointed Chief of Intelligence Department, and accompanied Sir John French to France. He was attached to the Staff, took part in the advance to and retreat from Mons, and was engaged in all operations until 1916. At the beginning of 1916 he returned to the War Office, and took up the position of Director of Military Intelligence. This work was a vital factor in the success of our military operations, and involved a very extensive amount of administrative and executive work, for the carrying out of which General Macdonogh had on his staff 7000 officers and men. The efficiency of the arrangements made and the work done was reflected in the ultimate achievement of the defeat of the enemy. In September 1918 General Macdonogh was appointed Adjutant-General at the War Office, a position which he held until the signing of the Armistice in November 1918. Since the cessation of hostilities he has been engaged in the responsible and arduous work of raising and organising the New Army, the distribution of units, the organisation of dealing with the return of prisoners of war, and in demobilisation.

For his eminent services he was awarded the C.B. in 1914, and later was created K.C.M.G. The decorations bestowed on him were : 1914 Star, British War Medal, Victory Medal ; Commander Legion of Honour ; Crown of Belgium Grand Officer ; Crown of Italy Grand Officer ; White Eagle of Servia ; 2nd Class Rising Sun, Japan ; 2nd Class White Elephant, Siam ; Grand Cross St Stanislas, Russia, without Swords ; D.C.M., U.S.A. ; French Croix de Guerre ; Belgian Croix de Guerre.

### LIEUT.-COLONEL C. C. MACDOWELL, C.M.G., D.S.O.,
12 Weymouth Court, Portland Place, London, W. 1

First commissioned in the Devon Artillery, Western Division, Colonel Macdowell's first experience of active service was gained in the South African War in 1900–1901 as Adjutant of Yeomanry, as Brigade Major in the Rhodesian Mounted Brigade, as well as in command of the 70th (Scottish) Yeomanry. He was engaged in

operations in Rhodesia, Transvaal, Orange Free State, and Cape Colony. On his return to England in 1901 he was appointed Adjutant, 3rd London Yeomanry, 1901–1905, and commanded a squadron in this regiment until 1911. He volunteered for active service in August 1914, and was gazetted Major, second-in-command, 6th Black Watch (Royal Highlanders), serving with this battalion in France until October 1915. With this battalion of the 51st (Highland) Division he took part in the battles of Festubert and Neuve-Chapelle. He returned to England for a course of instruction at the School of Gunnery, Shoeburyness, and was on 15th November of the same year appointed temporary Lieut.-Colonel, R.A., to command 281st Brigade, R.F.A., then on the Western Front. In January 1916 he was commanding the Field Artillery Counter Battery Group at Loos, and on 1st July commanded the right group (56th Division) at the attack on Gommecourt. He then commanded a group, consisting of his own brigade and other batteries, in the battle of the Somme, including the taking of Combles, Guillemont, Morval, Les Bœufs, and Le Transloy. In February 1917 he was placed in command of the advanced artillery group in operations, Arras attack, and was in command of a group at the third battle of Ypres, in the attack on Westhoek Ridge and Langemarck in July. In September of that year he had a command during General Sir Julian Byng's attack on Bourlon Wood, and subsequently before Bullecourt with 3rd Division. He commanded a group during the great but unsuccessful attack by the Germans on the Vimy Ridge, north of Arras. Colonel Macdowell also commanded his brigade during the summer of 1917 on the Arras front, and a group in the British advance from Arras in August, including the capture of Bullecourt, Norieul, and Quéant (Hindenburg line). In the final operations of the war, including the advance on Mons, which was reached on Armistice Day, 11th November 1918, he commanded a group of four brigades. His brigade, reduced to cadre strength, returned to England July 1919. Since that date Colonel Macdowell has acted as Assistant General Manager and on Executive Committee of the Officers' Association, and is a director of several companies formed for the resettlement of ex-service men in civil life.

For his able services he was created a Companion of the Order of St Michael and St George, a Companion of the Distinguished Service Order, and was four times mentioned in despatches.

## SIR JAMES M'KECHNIE, K.B.E., Naval Construction Works, Barrow

Sir James M'Kechnie, who is a director of Vickers, Ltd., with control of their vast naval construction works at Barrow-in-Furness, was responsible for the initiation and construction of the very large extensions which were necessary to meet the demands of war. Under his direction the works were open day and night, producing howitzers and projectiles of all types and sizes, all classes of war vessels, including battleships, submarines, and mercantile ships, and the largest types of naval gun mountings. The enormous hangars at Cavendish Docks and Walney Island were utilised for the construction of airships of all classes and sizes, and practically every imaginable requisite of war was produced from these extensive and highly equipped works.

Sir James was also responsible to the Ministry of Munitions for the erection and management of the National Projectile Factory at Lancaster and the National Filling Factory at Morecombe—two of the largest of the numerous national factories erected during the war.

Prior to the war he was awarded the Grand Cross and Star as a Knight Commander of the Ancient Royal Order of Isabel la Catolica, by the Queen Regent of Spain, for work done whilst Engineer-in-Chief of Naval Works in Spain; and for his services during the war he was, in 1918, created a Knight Commander of the British Empire.

## SIR NORTHRUP M'MILLAN, F.R.G.S., C.M.Z.S., Nairobi, British East Africa

Sir Northrup M'Millan was abroad when war broke out, and hastened home at the earliest possible moment to join up for service overseas. He arrived in England in February 1915 and joined the 25th Battalion Royal Fusiliers (Frontiersmen). In twenty days' time he sailed with them as a second lieutenant for East Africa, and took an active part in the subsequent East African campaign. Sir Northrup M'Millan owns large properties in East Africa, and was for many years before the war closely associated with the commercial development of that country. In June 1915 he converted his private residence at Nairobi into a nursing home for the officers and men of his own battalion, equipping it in every detail, and providing the trained nursing staff, motor ambulances, etc., entirely

at his own expense. At a later date he also converted one of his large farms in the sugar district into a convalescent home. Both these generous gifts proved of the utmost value during the campaign, and were greatly appreciated by the authorities. After seeing active service with the 25th Royal Fusiliers, Sir Northrup was, in February 1916, seconded for duty to the Staff of General Sir Charles Crewe, and proceeded with him to Uganda and the Congo, to assist in the Belgian operations on that front. His wide experience of local conditions led to his appointment, in August 1916, as Controller of Enemy Merchandise in German East Africa, with headquarters at Tanga. In this capacity he rendered valuable service, handling a difficult task with conspicuous success. In March 1917 the Compulsory Service Act was brought into force in East Africa, and again Sir Northrup M'Millan's wide knowledge of the country and its people was utilised by the authorities. He was appointed Staff Recruiting Officer for East Africa, with headquarters at Nairobi, and continued to hold that appointment until his discharge, with the rank of Major, as medically unfit for further service overseas.

The nursing and convalescent homes at Nairobi had been taken over in 1916 by Lady M'Millan, who ran these until the close of the campaign. Sir Northrup M'Millan was twice mentioned in despatches, and was knighted in 1918 in recognition of his distinguished services in East Africa.

## AIR COMMODORE E. M. MAITLAND, C.M.G., D.S.O., A.F.C.,
Director of Airships, Air Ministry, 16 Chelsea Court, S.W.

One of the pioneers and adventurers in aerial travel and navigation, Lieut.-Colonel Edward Maitland Maitland, as he then was, in 1914 commanded No. 1 Airship Squadron of the Royal Flying Corps, stationed at Farnborough. When, in January of that year, it was decided that the Army should hand over their airships to the Navy, he was transferred to the Royal Naval Air Service with the rank of Wing-Commander. Shortly before the outbreak of war, Colonel Maitland was at Bitterfeld, in Germany, in connection with the trials of certain airships on order from the " Parseval " Company, but fortunately he was able to return safely to this country before war was actually declared. Immediately after this he organised and commanded a section of spherical observation balloons, which he took to Belgium. This section had its base at Firming, and worked in conjunction with the Belgian heavy artillery and also with the British Fleet in the bombardment of German coast towns and batteries in Belgium. As the result of personal observation, Colonel Maitland soon became convinced of the superiority of the

"Kite" or "Drachen" balloon, as used by both the Belgians and Germans, over the spherical type, and in the spring of 1915 he returned to England and established an organisation at Roehampton for the experimental development of the kite balloon, and the training of the personnel necessary for handling this type. During this period he also continued his pre-war experiments in parachuting, and made many daring descents in order to prove their war utility. Early in 1916 he was appointed to take charge of the Operational Section of the Air Department at the Admiralty, but the indoor work was too uncongenial, and he applied to be transferred to some more active sphere of work. After a period of sick leave he was given command of the large rigid airship station at Pulham, in Norfolk. He held this appointment for a year, and was awarded the D.S.O., and was then again called to the Admiralty, this time to take charge of the Airships Headquarters Staff. It was almost entirely due to his persistent personal efforts with a somewhat sceptical War Staff that a greatly increased programme of airship construction was eventually adopted, and from that time forward, under his enthusiastic and careful guidance, the airship service became an important and efficient arm, amply demonstrating its war-time utility.

On the formation of the Royal Air Force, Colonel Maitland was given the rank of Brigadier-General, and for his valuable services the C.M.G. was conferred on him.

His successful air-journey to America and back in the Airship R 34, which completed the outward voyage in 108 hours 12 minutes, and the return journey in 75 hours 3 minutes, marked an epoch in aerial navigation. In recognition of the distinguished services thus rendered to aviation, Brigadier-General Maitland was awarded the Air Force Cross.

## SIR CHARLES MANDER, Wolverhampton

Sir Charles Mander had served for over twenty-five years in the Staffordshire Yeomanry, from which he retired, with the rank of Lieutenant-Colonel, ten years prior to the outbreak of war. He was at that time over sixty years of age. During the whole period of active service of this regiment at the Front, Sir Charles devoted himself to its interests and upkeep. He also took active interest in all movements of a charitable or other character for assisting the troops, contributing in many directions to the country's needs throughout the war.

His son, Major Charles Arthur Mander, T.D., was mobilised with the Staffordshire Yeomanry, and served throughout the war in Egypt and Palestine, being once wounded.

## THE RIGHT HON. THE VISCOUNTESS MASSERENE AND FERRARD,
Antrim Castle, Antrim, Ireland

REALISING the great demand for trained nurses which the war must necessarily create, the Viscountess Masserene undertook, in 1914, a course of probationary nursing at St Thomas's Hospital, in order to render herself fit for any emergency which might arise. On the formation of the Women's Legion she was asked to undertake the duties of Commandant of the Canteen Section, and in this capacity her ladyship threw herself whole-heartedly into the furthering of the interests of munition workers. She conducted canteens at Woolwich Arsenal, Wembley, Chelsea, Brooklands, and Woking, the latter having seating accommodation for over a thousand workers.

The Viscountess Masserene personally superintended the administration of the canteens, paying visits of inspection, organising the staff, and attending to the commissariat. The committee spoke highly of her business abilities, and greatly appreciated her untiring energies for the welfare both of the workers and of the Women's Legion.

Despite the very great demands made on her time by her official position in the Women's Legion, Viscountess Masserene also acted as President of St John's Buffet for Soldiers in Belfast, lent her assistance and did much good work for a convalescent camp for wounded soldiers, and arranged several concerts a week for the wounded at her Irish residence, Antrim Castle.

## COLONEL H. A. R. MAY, C.B., V.D., "Artists' Rifles,"
5 Dowgate Hill, Cannon Street, London, E.C. 4

THE excellence and great utility of the work of the Artists' Rifles need no higher commendation than that paid to them by Field-Marshal Viscount French, a commendation which received its practical application in their selection by the Field-Marshal for providing him with trained officers at a critical stage of the war. When Colonel May reached France with the 1st Battalion of the Artists' Rifles, Lord French appealed to him to supply him with officers to fill the ranks which had been so seriously depleted during the early stages of the struggle. The results of the efforts made by Colonel May were that the Artists' Rifles at once put 550 officers into the Regular Army at that time, and contributed throughout

the war a large number of both officers and men, the former numbering no less than 10,360 during the whole period. Of these over 1900 gained distinctions, including 8 V.C.'s and 815 M.C.'s. The high regard in which the Artists' Rifles were held by Viscount—then Sir John—French, was shown by his address to them prior to his leaving France in December 1915. It is not only a testimony to the quality and efficiency of the officers and men themselves, but to the spirit and ability of those who were responsible for their training, and chiefly to Colonel May. Sir John French, addressing the regiment, said : " Officers and men, it is singularly appropriate and nothing could give me greater pleasure than that your regiment, the Artists' Rifles, should be the last troops that I shall see in France. You have done wonderful work since you came out, and you have furnished some of the finest leaders of the Army from your ranks, and in doing so you have suffered perhaps greater losses than any other regiment out here. You have done great work, and I have no doubt you will continue to do so till the end of the campaign. I am very pleased that the guard of honour on my leaving France should be supplied by the Artists. I wish you Good-bye and Good luck."

Fifteen months of strenuous work in France undermined Colonel May's health, and after a short time in hospital and a brief rest he was appointed Commandant of the Officers' School at Tidworth, Salisbury Plain. Here he was responsible for the training of large numbers of officers of all kinds. Among other courses, he organised and superintended the training of altogether nearly 5000 Australian officers and cadets, and initiated and carried out special courses for quartermasters, military police, civilian lawyer officers (as military law instructors), civil engineer officers (as field engineering instructors), civilian doctors (before joining R.A.M.C.), Army chaplains, and many others. During the four years of war Colonel May was directly or indirectly responsible for the training of 19,237 officers, which must be a unique record.

It is impossible in the space available to convey a clear and comprehensive idea of the vast amount of organising work and personal ability needed to carry out the above, and of the responsibility which fell on the shoulders of Colonel May during those terrible times of stress and urgency ; but the quality of the officers trained by him, and the honours they gained, are ample proofs of the great and enduring work which he performed.

## FIELD-MARSHAL LORD METHUEN, G.C.B., G.C.M.G., G.C.V.O.,
Corsham Court, Wilts

Soon after the commencement of the war Lord Methuen, at the personal request of Field-Marshal Lord Kitchener, accepted the Governorship of Malta, which island was destined to play an all-important part in the successful conduct of the war. It could not have been anticipated in the early stages of the conflict that Malta was to become the centre of one of our largest hospital schemes, and it was not until the spring of 1915, when large numbers of badly wounded cases from Gallipoli began to arrive there, that its importance as a hospital base began to be recognised by the authorities at home. At that time there were only 9 medical officers, 14 nurses, and 220 R.A.M.C. orderlies stationed at Malta, and the military hospital there comprised only 275 beds. A territorial unit, the 1st City of London Field Ambulance, consisting of 4 officers and 193 rank and file, arrived and proved of the utmost value. When he arrived at Malta, Lord Methuen, realising the imminence of operations in Gallipoli and the necessity which would as a consequence arise, immediately took steps to expand the hospital accommodation to 3000 beds. As a result of his recommendations, the Director-General of Medical Services immediately despatched a number of the leading surgeons and physicians in the United Kingdom to Malta, together with adequate numbers of medical officers, nurses, orderlies, and quantities of hospital equipment. In this rapid and urgent work of expansion the British Red Cross Society and the St John's Ambulance Society rendered invaluable help, as also did the Y.M.C.A.; and, thanks to the united efforts of all concerned, the hospital accommodation at Malta was able to cope successfully with the extraordinary demands made upon it. After the disastrous Gallipoli campaign came Salonica, and the number of patients coming into the island increased enormously. Lord Methuen had, however, succeeded in providing 2800 beds, with ample accommodation for hospital and convalescent patients, as well as the services of 379 medical officers, 913 nurses, and 2415 orderlies. Altogether, over 137,000 patients passed through the Malta hospitals, and it is stated by Lord Methuen that their conduct was, at all times, exemplary. On taking over the Governorship, Lord Methuen found that the island was in a very bad financial condition, and, under instructions from the Colonial Office, he introduced a system of taxation which yielded a sum of over £80,000 per annum. He also laid the foundation of a system of compulsory education which was badly needed and which it is hoped will become permanent.

Amongst other notable incidents during Lord Methuen's Governorship may be mentioned the laying of the foundation stone, by Lady Methuen, of the "Vernon" Institute for Soldiers and Sailors. Lord Vernon, who died in hospital at Malta during the war, left £2000 for the benefit of his comrades, and the Institute was built in his memory. Lady Methuen also laid the foundation stone of the George V. Merchant Seaman's Hospital; and the Australian Hostel was erected with money provided by the Australian Government for that purpose.

Lady Methuen instituted a relief fund for the benefit of those inhabitants of the island who could not ask for public charity, but who were seriously affected by the great increase in the cost of living.

For his invaluable services in Malta, Lord Methuen received the G.C.M.G., the Grand Cross of the Legion of Honour, and the Grand Cross of the Crown of Italy.

### MRS COUTTS MICHIE, C.B.E., 184 Queen's Gate, S.W. 7

At the outbreak of hostilities it was realised in many directions throughout the country that extensive facilities would be required in the way of hospital accommodation. Among those who came forward with offers of assistance, and with every wish to set the interests and welfare of our fighting forces above personal considerations, was Mrs Coutts Michie, who placed her home at Queen's Gate at the service of the Government. The work of equipping a private residence as a hospital naturally involved a considerable amount of work and expenditure of money. The house at Queen's Gate, which was thoroughly equipped for the reception and treatment of 100 men, involved an outlay of over £2000. The construction of the house lent itself admirably to the requirements, and it was possible to arrange that all the wards should be on one floor and the operating rooms above. The hospital was opened by Queen Alexandra, one ward in which was named in her honour. A spacious recreation room was also provided. For the first two or three years of the war the Government allowed a certain grant towards the expenses of these private hospitals. Subsequently, however, Mrs Michie continued the running of this hospital at her own expense, the cost of which was over £2000 a year. In addition to this generous work, Mrs Michie subscribed

over £20,000 for the purposes of the war; and, in order to provide her patients with the best of everything, all provisions that she could grow were brought by motor from her country residence. Another branch of work with which Mrs


Mrs Coutts Michie, with group of nurses.

Michie associated herself was the despatch of parcels to Belgium, France, and other countries—in fact, to all war centres; and this was done on a very extensive scale.

## LIEUTENANT-GENERAL HIS EXALTED HIGHNESS SIR MIR OSRAM KHAN BAHADUR, Nizam of Hyderabad, G.C.S.I., G.C.B.E.

THE seventh Nizam of Hyderabad and a lineal descendant of the founder of the family—the first Nizam-ul-Mulk, Asaf Jah, who was a leading nobleman at the Court of the Emperor Aurangzeb, and was subsequently appointed as Subadar, or Viceroy, of the Deccan, and also held for a time the office of Vazir, or Chief

Minister, of the Moghal Empire—Sir Mir Osram Ali Khan Bahadur was born in 1886 and succeeded his father, Sir Mir Mahbub Ali Khan, in 1911.

No sooner had war been declared than the Nizam placed the entire resources of his State, in men, money, and munitions, at the disposal of the British Government. The Imperial forces were mobilised and dispatched to the Eastern theatre of operations, firstly forming part of the garrison in Egypt, and subsequently taking part in the general campaign in the East, including the battle of Ghaza. But it was not alone through soldiers wearing the uniform of the Nizam that the assistance in men was rendered. A vigorous recruiting campaign conducted within the Nizam's Dominions, with the hearty co-operation of the State officials, resulted in a large number of enlistments of His Exalted Highness's subjects in the British-Indian Army, for which Deccani Muhammadans were specially in requisition.

As regards financial contributions by the State, these may be subdivided into free monetary gifts and subscriptions to War Loans. The major items worthy of mention among free gifts were :—Donations towards the anti-submarine campaign, fifteen lakhs of rupees ; special donation towards the prosecution of the war, fifteen lakhs of rupees ; subscription to the Imperial Indian Relief Fund, two lakhs and twenty-five thousand rupees ; offered to their Majesties the King-Emperor and the Queen-Empress, on the occasion of their Silver Wedding, for the relief of sufferers from the war, three lakhs and seventy-five thousand rupees ; towards the hospital-ship *Loyalty*, subscribed for by the Princes of India, two lakhs ; miscellaneous donations, approximately one lakh forty-four thousand six hundred rupees.

The Nizam is also the Honorary Colonel of the British-Indian cavalry regiment known as the 20th Deccan Horse. Out of the sentiment arising from this honorary colonelcy, His Highness undertook to maintain this regiment in the field during the whole course of the war, at the expense of his own State. At the rate of three lakhs of rupees per month, as the cost of maintenance of the 20th Deccan Horse in the field, the total contribution from the Nizam under this head alone, for the duration of the war, amounted to the large sum of one crore and fifty-three lakhs of rupees. The total free gifts of money towards the war amounted to Rs. 1,94,44,600.

As regards subscriptions to War Loans, those to the 4 per cent., 5 per cent., and $5\frac{1}{2}$ per cent. loans floated by the British-Indian Government at different times amounted to thirty-nine lakhs, seventy-five lakhs, and fifty lakhs of rupees respectively, or a total of one crore and sixty-four lakhs of rupees in all.

For the provision of munitions of war and other materials, the State workshops were converted into munition factories, whence the total output of cordite boxes, shells, transport carts, and other munitions of war amounted in value to twelve and a half lakhs of rupees. These were, however, paid for by the British Government. Fodder on a large scale was supplied by the State free of charge to the Remount Depot at Aurangabad. The 20th Deccan Horse were re-armed with a recent pattern of sword at the expense of the State, and many locomotives and railway rolling stock from the Nizam's Guaranteed State Railway were employed in Mesopotamia, as well as other railway material.

Apart from the material aids which more or less every Indian State could and did proffer, the Nizam's unique position as head of the Muslim community in India enabled him to render far more valuable service, the magnitude and importance of which cannot easily be over-estimated. The participation of the chief Muhammadan Power, Turkey, in the Great War was an event likely to cause perplexity and distress in the minds of the Muhammadans of India. Fully realising the gravity of the situation, the Nizam felt that a clear pronouncement of his own attitude in the matter would be helpful in removing misapprehension and maintaining tranquillity and order among the Muhammadans of India, and he therefore issued the following manifesto :—" In view of the present aspect of the war in Europe, let it be generally known that at this critical juncture it is the bounden duty of the Muhammadans of India to adhere firmly to their old and tried loyalty to the British Government, especially when there is no Muslim or non-Muslim Power in the world under which they enjoy such personal and religious liberty as they do in India, and when, moreover, they are assured by the British Government that, as it has in the past always stood the best friend of Islam, so will it continue to be Islam's best friend and will always protect and cherish its Muslim subjects.

" I repeat and reiterate that in the crisis before us the Muhammadan inhabitants of India, especially the subjects of this State, should, if they care for their own welfare and prosperity, remain firm and whole-hearted in their loyalty and obedience, swerve not a hair's-breadth from their devotion to the British Government, whose cause I am convinced is just and right, keep sacred the tie which binds the subject people to their Rulers, and, lastly, that they should in no case allow themselves to be beguiled by the wiles of anyone into a course of open or secret sedition against the British Government.

" Finally, I give expression to the hope that as I, following the tradition of my ancestors, hold myself ever ready to devote my own person and all resources of my State and all that I possess to the service of Great Britain, so will all the

Muhammadans of India, especially my own beloved subjects, hold themselves whole-heartedly ready in the same way."

The Nizam's action had an almost magical effect in relieving the tension by allaying the excitement of the Muhammadans. The situation was saved, and the Nizam's manifesto will go down in history as a memorable document, the importance of which it is not possible to exaggerate.

LIEUT.-GENERAL SIR JOHN MONASH, G.C.M.G., K.C.B., V.D., D.C.L. (Oxon.), LL.D. (Cantab.), M.C.E. (Melb.); M.Inst.C.E.; b. Melbourne 27th June 1865; educ. Scotch College and University, Melb.; Pres. Victoria Inst. of Engineers 1913–15; Lieut. Australian Citizen Forces 1887, Capt. 1892, Major 1900, Lieut.-Col. 1905, Col. 1912.

At the outbreak of war he was Colonel commanding the 13th Infantry Brigade of the Australian Commonwealth Military Forces. This Brigade was recruited in the Southern Metropolitan Districts of Melbourne. Previous to 1914 he had had some thirty years' service as an officer in the Commonwealth Military Forces in Infantry, Artillery, and Staff Corps.

Upon the declaration of war he was appointed Deputy Chief Censor for Australia, and carried out the telegraphic, mail, and press censorship for the whole of the Commonwealth until his appointment as Commander of the 4th Australian Infantry Brigade of the Australian Imperial Force. He organised and concentrated this Brigade for war training at Broadmeadows, Melbourne, and embarked them from Australia on 14th December 1914, being then given command of a convoy of twenty-two transports carrying some 20,000 troops to the theatre of war. The convoy reached Egypt on 1st February, passing through the Suez Canal during the attack by the Turks on the Canal defences. He landed his Brigade in Egypt, and it was ordered to form part of the Australian and New Zealand Division of an Army Corps which was then known as the Anzac Corps. War training continued in Egypt until 9th April, when the whole Corps embarked for the Dardanelles Expedition. The final preparations for the landing at Gallipoli were completed in Mudros Harbour in April 1915, and the historic landing at Anzac Cove took place on 25th April, Colonel Monash landing with his Brigade that day and capturing the northern portion of the Anzac position, comprising Monash Valley, Pope's Hill, Quinn's Post, and Courtney's Post. During May he undertook several sorties from these positions, and on 19th May fought a very severe defensive action against a large Turkish force which had been launched to drive

GENERAL OFFICERS OF AUSTRALIAN CORPS HEADQUARTERS, FRANCE, 1918.

| Brig.-Gen. C. H. Foott, C.M.G. | Brig.-Gen. K. A. Carruthers, C.B., C.M.G. | Brig.-Gen. T. A. Blamey, C.M.G., D.S.O. | Brig.-Gen. L. D. Fraser, C.B., C.M.G. | Brig.-Gen. W. A. Coxon, C.M.G., D.S.O. |
|---|---|---|---|---|

Lieut.-Gen. Sir J. Monash,
K.C.B., V.D., G.O.C.

the Australians into the sea. In June 1915 the 4th Brigade was engaged in further defensive preparations, and during July preparations were being made for a second great offensive, which took place on 6th August, and synchronised with the second landing of British troops at Suvla Bay. The 4th Brigade undertook a very difficult night operation, and penetrated the Turkish defences northwards for a distance of about four miles, seizing the foothills of the main range of Sari Bair. The Brigade also participated in the operations of 18th and 28th August for the capture of Hill 60. From then on until the evacuation, Colonel Monash, who had in the meantime been promoted to the rank of Brigadier-General, receiving the C.B., remained on the defensive. He was present at the evacuation on 19th December 1915, and withdrew his Brigade in three successive nights, without being discovered and without the loss of a single man.

The 4th Brigade was then transferred to Egypt, and was there expanded under Brigadier-General Monash's supervision into what ultimately became the 4th Australian Division, which passed into the command of Major-General Sir H. V. Cox. Until April 1916 the Brigade served in the Suez Canal Defence zone, and there completed its war training for the French theatre of war. The Brigade was transferred to France in May, and went into the line in the Bois Grenier sector, near Armentières, carrying out several very successful and important trench raids. In July of this year Brigadier-General Monash was promoted to Major-General and appointed to the command of the 3rd Australian Division, which was then arriving in England from Australia. He concentrated his Division on Salisbury Plain and carried out its war training, taking the Division to France in November, and going into the line with them again in the Armentières sector. During the winter and early spring of 1917 the 3rd Division carried out a number of important trench raids and made numerous captures. The month of May was occupied in preparations for the great battle of Messines, which was fought on 7th June, with the 3rd Division on the extreme right of the British attack. The battle was a brilliant success, and the Division captured over 1000 prisoners, following up its success by exploitation and the capture of a considerable amount of territory not included in the original plan of operation. After a short rest the Division again came into the line opposite Messines, and took part in the opening phase of the third battle of Ypres, fighting the action known as the Windmill on 31st July in the vicinity of Warneton.

The 3rd Australian Division was next engaged in October 1917 in the last phase of the third battle of Ypres, and took part on 4th October in the capture of the Broodseinde Ridge and the advance at Passchendaele. The Division was then withdrawn, and again went into the line in the Messines-Warneton sector,

carrying out during the winter 1917–1918 very extensive defensive works opposite Warneton, including also a number of highly successful trench raids. In the early spring of 1918 the Division was resting when the German counter-offensive broke out on 21st March. The Division was called upon to intervene and stop the rush, and by dint of very rapid movement by rail and motor-bus, and by hard marching, came into the fight in the vicinity of Villers-Brettonneaux on 26th March. This Division, with the co-operation of the 4th Australian Division opposite Albert, completely arrested the German offensive and saved the city of Amiens from capture. During May the enemy delivered several onslaughts on a grand scale on this Division, but was completely and sanguinarily repulsed. The 3rd Division then took the offensive, and carried out a long series of operations which yielded in the aggregate several thousand prisoners and several hundred guns.

In the meantime Major-General Monash received the honour of knighthood and K.C.B., gazetted on 1st January 1918. On 30th May he was promoted to Lieut.-General and given command of the Australian Army Corps, consisting of five Divisions and a large body of Corps troops. He at once commenced to consolidate the whole Corps front east of Amiens, and to make preparations by organisation and training for an offensive on a much larger scale. The advent of a new type of tank gave him the opportunity of developing new tactics for the employment of tanks and also of the Air Service. These new ideas were put into practice for the first time experimentally at the battle of Hamel on 4th July 1918, this being the first large-scale offensive carried out on any Allied front since the previous autumn. Hamel was a brilliant and unqualified success, and swung the whole Allied outlook in the direction of an offensive.

The plans for a great counter-offensive by the 4th Army, of which the Australian Army Corps formed the principal part, matured during July, and the operation was launched on 8th August by the Canadian, Australian, and 3rd British Corps, in that order from south to north. This battle was also an unqualified success, the Australian Corps capturing over 10,000 prisoners and several hundred guns. From that date until the end of hostilities no single day passed without a successful offensive, the Australian Corps hunting the enemy right up the valley of the Somme through Bray, Peronne, Mont St Quentin, Roisel, Hargicourt to the Hindenburg Line, capturing in the process over 30,000 prisoners and seizing positions of the utmost tactical importance to the enemy. The final series of operations on the front carried out under the direction of General Monash was the taking of the Hindenburg Line in the sector of the Bellicourt Tunnel. For this purpose he was given command, in addition to his own Corps, of the 27th and 30th American Divisions. The operation was completely successful, and


Baizieux
Laviéville
Bresle
Méaulte
Dernancourt
Tranvillers
Bray-sur-Somme
Ribemont
Reilly
Treux
Méricourt l'Abbé
Morlancourt
Villers
Bonnay
Vaux-sur-Somme
Corbie
Vaire
Sous-Corbie
Etampes
Hamelet
Cerisy
Chipilly
Fouilloy
Hamel
Moncourt
Warfusée-Abancourt
Lamotte-en-Santerre
Villers Bretonneux
Bayonvillers
Cachy
Marcelcave
Harbonnières
Wiencourt-l'Equipée
Aubercourt
Hangard
Ignaucourt
Caix
Demuin
Thennes
AUGUST 7th 1918
SOMME
CANAL
FRONT
AUST. CORPS
SOUTHERN BOUN
8.8.18.
10.8.18.


STAFF MAP SHOWING THE ADVANCE OF THE AUSTRALIAN


1 Inch to 1·58 Miles

5 6 7 8 9 10 Miles

USTRALIAN CORPS FROM 7tAUGUST 1918 TO 5th OCTOBER 1918.

AUST. CORPS NORTHERN BOUNDARY.

he carried the fighting through and beyond the last German defences in France at Beaurevoir and Montbrehain.

On 5th October the Australian Corps was relieved from further service in the line, and on the same day the German Government sued for peace.

Subsequent to the Armistice, General Sir John Monash was appointed by the Australian Government as Director-General of Repatriation and Demobilisation, and took up his headquarters in London, where he organised his staff and completed his great services to the Empire. On 1st January 1919 he was created G.C.M.G., and has received also the orders of Grand Officier Légion d'Honneur and Grand Officier d'Ordre de la Couronne, Belgium; also the American Distinguished Service Medal and the degrees *honoris causa* of D.C.L., Oxford, and LL.D., Cambridge.

## THE RIGHT HON. SIR ALFRED MOND, M.P., 35 Lowndes Square, S.W. 1

On the outbreak of hostilities in 1914 Sir Alfred Mond became involved in war work of the most responsible character. He was invited by Mr Lloyd George, then Chancellor of the Exchequer, to join the committee of six leading business men whom the Chancellor had chosen to advise him as to the best means of averting the threatened financial and economic deadlock, and, with his colleagues on this committee, Sir Alfred Mond assisted the Chancellor in arriving at vital decisions regarding currency, a moratorium, shipping and national supplies, etc.

Representing one of the most important industrial communities in the country, Sir Alfred Mond, at this early stage of the war, called together all the leaders of industry in the Swansea district and explained to them the Government's intentions for meeting the national emergency. He advised employers to keep their men at work, and laid down the principle for their guidance that they were business men not trying to make money but conscious of their patriotic duty to their country. A splendid response of the business community of Swansea was the result, and Sir Alfred took this opportunity of appealing for the soldiers' dependents. The firms with which he was connected set an early example by according the most generous terms to workmen who joined the forces, and to their families during their absence. A month later his Swansea residence was offered for the use of Belgian refugees, and a house in London was also rented specially for their use. In September of 1914 Sir Alfred Mond assisted recruiting in Swansea and South Wales, both by speaking at public meetings and by opening out at his own expense, in advance of the military, but with their consent, recruiting

stations up the valleys. He was the first to suggest the formation of the Swansea battalion, known afterwards as the 14th Battalion Welsh Regiment. He guaranteed the whole cost and served throughout on the committee. He took a special interest in this battalion throughout its service, both in preparation for war and afterwards when it served on the battlefields of France. Another battalion with which he was closely connected, both in the work of raising and afterwards in looking after its well-being, was the London Welsh Battalion, later known as the 15th Battalion Royal Welsh Fusiliers. During this period also Sir Alfred Mond was fully occupied both in the House of Commons and in his constituency, and probably no Member of Parliament saw a larger number of his reasoned proposals subsequently adopted by the Government. One of the suggestions that he put forward at this time, during the early part of the war, was that industries should be registered as well as the men and women of the country. He was constantly alive to the needs of those fighting for the nation. Long before he took office in December 1916, he had been one of the most active Members in the House of Commons on all questions affecting industry, commerce, finance, and the harmonious organisation of all our national forces for the promotion of the war. He proposed a Bill for relieving soldiers and sailors of certain of their civil contractual liabilities, and, although his proposals were not agreed to at the moment, they were, in principle, adopted later. He was the first to suggest the extensive use of tractors in agriculture. He was one of the band of Liberal Members to form the Liberal War Committee which helped so considerably in urging upon the Government the necessity for compulsory service, recognising the injustice and futility of the method used to maintain the fiction of voluntary recruiting. At an early date also he pressed for an improved Air Service, and encouraged British inventors by supporting financially the building of British airships and the supply, by the builders of motor-car engines, of aircraft engines. By his financial assistance, the Calthrop "Guardian Angel" Parachute was developed and tried and finally adopted. His advice in chemical matters was freely given to the Government, and, as a member of the committee presided over by Lord Moulton for considering the use of gas, valuable services were rendered by him. When Lord Moulton was appointed Director of the Explosives Department of the Ministry of Munitions, Sir Alfred, on behalf of his firm, Messrs Brunner Mond & Co., placed at the disposal of Lord Moulton the whole resources, both works and technical staff, of that huge undertaking. Lord Moulton has put on record the valuable services of this firm to the country, both in the supply of war material and the manufacture of T.N.T., etc.

His work on Lord Balfour of Burleigh's committee on the commercial and

industrial reorganisation of the British Empire was also of great value, and was only relinquished on taking office in Mr Lloyd George's Government in 1916.

As early as October 1914 he offered his country residence, Melchet Court, near Romsey, as a hospital. This was subsequently accepted by the War Office, and, throughout the war, somewhere between thirty-six and forty-two patients (N.C.O.'s and men), together with an average of six officers, were in residence at this hospital. Lady Mond was the Commandant, and it was regarded as an annexe to Netley Hospital at Southampton. The whole expense was borne by Sir Alfred Mond. The second hospital which he founded was known as the Queen Alexandra Hospital for Officers, at Millfield Lane, Highgate. With the assistance of Mr Herbert J. Paterson, F.R.C.S., the eminent surgeon, of Wimpole Street, who gave up his entire practice and voluntarily served in this hospital throughout the war, Sir Alfred erected and organised this hospital at his own expense and practically maintained it throughout. Over 1000 of the severest surgical cases among officers were dealt with at this institution.

In forming his national Ministry in December 1916, Mr Lloyd George invited Sir Alfred Mond to become His Majesty's First Commissioner of Works, and Sir Alfred accepted. This Department, H.M. Office of Works, was closely allied with the business of the war, but outside its normal duties it was carrying on exceedingly important work, such as the building of national filling factories, munition stores, salvage depots, national granaries, aircraft storage sheds, hospitals, etc. Soon after he took office, Sir Alfred gave evidence of his ability to meet an emergency by dealing with the terrible havoc caused by the explosion at Silvertown, in East London. Not strictly falling within the purview of his Department, he went to Lord Rhondda, then President of the Local Government Board, with the suggestion that the Office of Works should deal with the work of rehabitating the population and rebuilding the devastated area. Lord Rhondda accepted the offer, and within a very short period shelter was found for the homeless population, the mass of debris was cleared, and the houses rebuilt.

Recognising the shortage of food and the duty of all sections of the community to increase the food supply, Sir Alfred Mond, on taking office, carried through the cultivation of park areas under his control. He gave great stimulus to the allotment system by the preparation of model allotments in Regent's Park and Kensington Gardens, and issued leaflets by experts explanatory of what was possible.

He was also responsible for the inception and carrying through of the great Imperial War Museum, and the completion of the collection of a true record of the whole war activities of Britain and her Allies is an achievement which will be a lasting testimony to Sir Alfred's zeal and organising capacity.

## LADY MOND, D.B.E., Melchet Court, Romsey, Hants

No sooner had war been declared in 1914 than Lady Mond offered her country residence, Melchet Court, Hants, as an auxiliary hospital for wounded soldiers. On 28th October the hospital was opened with twenty beds, later increased to sixty, Lady Mond having personally accepted the responsibility for furnishing not only bedding, clothing, etc., but also surgical bandages, instruments, and a complete operating theatre. The whole of the vast grounds, some 1100 acres, including the flower gardens, tennis courts, croquet lawns, bowling green, and fishing pond, were thrown open for the use of the patients.

Lady Mond with some of her officer patients.

Lady Mond, whose name was mentioned for valuable services in connection with military hospital work, personally attended to all the details of the running of the Melchet Court Hospital, and on behalf of the Welsh Hospital at Netley she originated a scheme which was instrumental in the collection of a fund for the erection of verandahs outside the wards. The outdoor treatment afforded by these was not only very beneficial to the patients, but their provision allowed space for a larger number of beds to be accommodated inside.

The healthy surroundings, large airy rooms, and exceptionally good food

Melchet Court Hospital—north side.

and attention reacted very favourably on the patients, most of whom were receiving massage treatment for stiff limbs. Every care was taken to keep the patients contented and physically fit. About two thousand patients passed through the hospital between 1914 and December 1918, hundreds of whom wrote letters to Lady Mond and the Sisters, expressing their gratitude for the treatment and attention they had received at Melchet Court. The hospital was closed on 31st December 1918.

Sir Alfred and Lady Mond with staff and patients.

Despite the very great demands made on her time by the hospital, Lady Mond was associated with numerous minor organisations during the war. In 1914 she lent three houses for the use of Belgian refugees, a large number of whom she entirely supported, in addition to doing a very considerable amount of work for their general welfare. At the invitation of Her Majesty, she joined the Queen's Council for the Employment of Women, and started a branch of Queen Mary's Needlework Guild in the village of Sherfield English. This branch sent large quantities of socks, shirts, and other comforts to the Queen's Guild, the workers receiving Her Majesty's thanks for their efforts.

In 1910 Lady Mond had founded in Swansea the Mothers' and Babies' Welcome, and during the war this institution undertook the working of a crèche and the feeding of necessitous mothers, who sometimes numbered a hundred a day. She also lent her interest and support to the Swansea Y.W.C.A., and acted as President of the Club for the wives of soldiers and sailors. She is a member of the Women's Committee of the Imperial War Museum, and is in charge of the hospital section. Since the foundation of the Fund for Comforts for the Welsh Troops, Lady Mond acted on its Committee, under the presidency of Mrs Lloyd George; she was also a member of the Committee of the Lord Mayor of London's War Savings scheme and the Soldiers' and Sailors' Guild of Broiderers. Queen Mary's Needlework Guild has Lady Mond as one of its Presidents, and her name is on the Committee of the Union Jack Club for Girls.

For the period of the war Lady Mond gave the use of her garden in Lowndes Square for tea and concerts, which were provided every week for numbers of Colonial troops on leave or convalescent in London. She also lent her house every week for a dance for Colonial officers and their friends, personally receiving her guests when her presence could be spared from Melchet Court.

Throughout the period of its operation, Lady Mond was a member of the Committee of Queen Alexandra's Hospital for Officers, which was built in 1915 by Sir Alfred Mond. Ten beds at Melchet Court were reserved for the use of officer patients from Queen Alexandra's Hospital.

In recognition of the very valuable services she rendered to the Empire, Lady Mond received the honour of being created a Dame Commander of the British Empire.

### C. D. MORTON, Esq., Tadworth Court, Tadworth, Surrey

On the outbreak of war Mr C. D. Morton, who is Chairman and Managing Director of the well-known Company of C. & E. Morton, Ltd., exporters of all kinds of preserved food, placed the Company's factories at the disposal of the Government. These were immediately utilised for the production of supplies for the Army and Navy. Their pre-war organisation enabled the Company to render valuable assistance in this direction, and also at a later stage in the preparing, packing, and despatching of parcels for the prisoners of war and many of the comforts funds, including large consignments for the Y.M.C.A.

Mr Morton acted on the Executive Committee of the Food Manufacturers'

Federation, which rendered great assistance to the Ministry of Food in carrying out of food control. He was also an active member of a special advisory committee appointed by the London Chamber of Commerce to advise the War Office on applications for the allocation of timber for case-making, etc.

At Tadworth, Mr Morton took charge of the recruiting work under the Derby scheme, and by his energy and tact was instrumental in obtaining a large percentage of the population for service with the forces. When the Chancellor of the Exchequer introduced the Excess Profits Tax, Mr Morton was appointed by the then Chancellor, Mr M'Kenna, as one of the Referees for the Treasury for the administration of the tax.

## SIR GERARD A. MUNTZ, BART., Tiddington House, Stratford-on-Avon

WHEN the Great War broke out Sir Gerard Muntz was Managing Director of Muntz's Metal Company, Limited. He was a Member of Council of the Birmingham Chamber of Commerce, the Institution of Mechanical Engineers, and the Institute of Metals, of which he was a past President. He was also Chairman of the Brass and Copper Tube Association, a body composed of all the leading makers of brass and copper tubes, comprising about 95 per cent. of the entire trade.

Shortly after the commencement of hostilities, the War Office realised that there was an insufficient supply of brass sheet for the manufacture of small-arm and field-artillery ammunition cartridge cases, and also a shortage of copper driving bands for shells of all sizes, the requirements of the Allied armies being far in excess of anything which had ever been anticipated. Sir Gerard Muntz was sent for by Sir Percy Girouard, acting for Lord Kitchener, to advise as to the possibility of getting the increased quantities of these articles from the trade. A special meeting of the shell and tube makers was thereupon called at Birmingham to meet Sir Percy Girouard, hear the facts of the case, and see what could be done.

It at once became evident that, with existing plant, it would not be possible to meet the needs of the armies. The trade was, however, organised so as to turn out the greatest possible quantities at once, and promises were made to put down fresh plant and machinery and train new men as fast as possible; the result being that in some three months the effects of the efforts made became apparent, the output being enormously increased. The credit for this result was due, in the first instance, to Lord Kitchener and Sir Percy Girouard, and

their policy of placing the actual facts of the case before the manufacturers and obtaining their strenuous and enthusiastic assistance.

The next point on which Sir Gerard's advice and assistance were called for was with regard to the supply of marine condenser tubes for both the Royal Navy and the mercantile marine. Again the demand was greater than the supply, and again a special meeting of the manufacturers was called, and Admiralty officials attended to explain what was required and ascertain what could be done. Great efforts were made, and enormously increased production was the result.

At a later date Sir Gerard was selected as a member of a Government committee appointed to deal with aircraft supplies of non-ferrous metals of all descriptions, and to draw up the necessary specifications. This committee sat for many months in London, and also as a joint committee of aeronautical experts and manufacturers in Birmingham, of which joint committee Sir Gerard was Chairman.

When the Allied heavy artillery had begun to attain the vast dimensions which the war called for, it became evident that the requisite copper bands for the shells could not be obtained from the tube makers alone, without interfering with the supply of copper tubes for ships, which could not, of course, be entertained. The manufacture of shell bands by pressing them out of copper plates was commenced, and developed rapidly, but was still insufficient to meet the needs of the guns. Sir Gerard Muntz was sent for by Sir Frederick Black to advise on the situation. It was evident that the existing methods could not be speeded up quickly enough, as the construction and erection of new machines would be entailed, and every machine shop and every skilled artisan in the country was already fully employed on war work. To meet the case Sir Gerard suggested that the copper shell bands should be cast in sand moulds on sand cores, thereby avoiding the necessity of providing any additional machinery except that required for finally turning them to exact size. Doubts were expressed by the Ministry of Munitions as to the possibility of producing satisfactory and round bands by this method, and this doubt was strongly supported by the experts at that time at Woolwich Arsenal. Nevertheless Sir Gerard decided to make the attempt, and, returning to Muntz's Metal Company's works at French Works, Birmingham, he succeeded, with the assistance of their foundry manager, Mr Gingell, and their copper refiner, Mr Davies, in the course of a few days in producing perfectly sound and good copper driving bands of 9·2″ calibre. Samples were at once sent to the Ministry of Munitions and to all the great private shell-making firms. Nothing was heard from the Ministry beyond an acknowledgment of receipt, and of the great shell-making firms all but one

turned down the cast bands as unsatisfactory, without even testing them. The one exception was Messrs Vickers, who, within a week, reported the bands to be perfectly satisfactory. A contract was placed, and the first two thousand 9·2″ were delivered in a fortnight, though afterwards the output was increased to fifty tons per week. Even this quantity was, however, insufficient to meet the requirement. Muntz's Metal Company could not increase the output beyond this figure of fifty tons, without interfering with other supplies needed by the Admiralty and the Ministry of Munitions; but they undertook to double the output if the Ministry would allow them to build two more furnaces and supply them with thirty unskilled labourers. The offer, however, was not entertained. The output, therefore, remained at fifty tons of 9·2″, 12″, 15″, and 17″ per week, and continued at that figure for many months. To endeavour to increase supplies, Muntz's Metal Company acceded to the request of the Ministry that they should teach other manufacturers how to make these bands, and threw open their shops to all who wished to study the method. It is, however, curious to learn that, with one exception, no one else succeeded in producing sound cast bands.

Some three months after Messrs Vickers placed their first contract, the Woolwich experts reported that the cast driving bands had been found satisfactory, and inquired as to quantities and price.

The manufacture continued to the end of the war, and the discovery overcame a grave difficulty and obviated our heavy guns being short of ammunition at a critical phase of operations. Casting copper in sand was a new departure; sound castings under such conditions had not previously been successfully made.

Shortly after the outbreak of war it became apparent that the application of scientific methods to industry was a vital need in England, and that in many trades there was room and necessity for scientific research. The Government decided to take the question up, and at once established a Department of Scientific and Industrial Research, under the control of an Advisory Council of the Privy Council. A Metallurgical Research Section was created, among others, and Sir Gerard Muntz was selected to act as General Chairman; he also acted as Sub-Chairman of the Non-Ferrous Metals Section, Sir Robert Hadfield, Bart., becoming Sub-Chairman of the Iron and Steel Section. These committees sat for several months, and their labours resulted in the formation of Trade Research Associations, supported by the manufacturers and assisted by Government grants. Sir Gerard was Chairman of the preliminary Committee of the British Non-Ferrous Metals Research Association, which has since become an Incorporated Association under the rules and regulations of the Board of Trade.

During the war the Government created committees for all the staple trades, with a view to ascertaining their condition and requirements, and what steps were necessary to strengthen and expand British trade. These committees were controlled by the Board of Trade, and their reports, when complete, were submitted to the Cabinet. A Non-Ferrous Trades Committee was created, and Sir Gerard Muntz was selected to act as Chairman. This committee sat for some eighteen months, and made a very exhaustive study of the copper, tin, lead, and aluminium industries. A voluminous report was submitted to the Government, but, unlike the reports of most of the other trade committees, it was, on the recommendation of the committee, not published to the public, owing to the confidential nature of its contents and the danger of imparting valuable information to the enemy. One of the results of the labours and reports of this committee was the passing of the Non-Ferrous Metals Bill through Parliament, the object of that Bill being to free the metal trades from the strangle-hold of the German "Metallgesellschaft," whose world-wide ramifications had obtained such a control of copper, zinc, and lead supplies as to prevent Britain using her own metal productions.

Another result of the Non-Ferrous Trades Committee's deliberations was the creation of the British Metals Corporation, a company formed to supply British consumers with British and other metals through British channels. Yet another departure influenced by the Non-Ferrous Trades Committee's report was the creation by the Government of the Imperial Mineral Resources Bureau, whose business it is to ascertain the location and quantity of all minerals within the British Empire, and to make recommendations as to how they may be best opened up and used to the advantage of British industries. The work is allocated to "panels" dealing with groups of metals. Sir Gerard Muntz is a member of the Copper and Zinc and Lead Panels, which committees are still sitting.

During the war Sir Gerard Muntz sat on the Committee on Trade and Commercial Policy after the War, of which Lord Balfour of Burleigh was chairman. This was a most interesting and instructive committee: it had to deal with every trade and commercial interest in the British Empire, and report thereon. Its reports have been published, but of course not the full evidence submitted to it: this evidence was extraordinarily interesting and informative.

While occupied with all the matters above referred to, Sir Gerard Muntz continued to carry on his business as Managing Director of Muntz's Metal Company, their works being occupied, to the fullest capacity of men and machinery obtainable, in producing copper, brass, bronze, and aluminium articles for the use of the Navy, Army, and Air Service. In order to accomplish this, however,

large new developments were necessary to meet war requirements, and new workmen had to be trained to replace those who had joined the services (some 20 per cent. voluntarily joined Kitchener's Army), and to fill up the new departments and extensions. Women also were trained to replace men, and new processes and new manufactures developed. For all of this Sir Gerard was primarily responsible, and took an active, detailed part in it. He was also frequently called upon to advise on matters of non-ferrous manufacture, both by Government officials and by manufacturers.

## MR GEORGE HOWARD NASH, C.B.E.

APPOINTED Chief Engineer of the Western Electric Company, Ltd., in 1911, Mr Nash was in charge of the Engineering Department throughout the whole of the war period. The position occupied by this Company and its associates, as the leading manufacturers of small-current electrical apparatus, especially telephonic, had attracted to its Engineering Department a number of specialists in this connection, and had thereby placed it in a unique position in the scientific manufacturing world. During the war the application of sound to many branches of both offensive and defensive operations called for very special knowledge and inventive genius, and in this respect the Engineering Department of the Western Electric Company proved itself equal to the demands made upon it.

In some of the more important investigations Mr Nash took very particular interest, and in three special instances must be given considerable credit for his share in the invention and production of devices which left no uncertain mark on the progress of the war.

The first of these, an apparatus first known as the Western Electric Mining Detector, and afterwards known to the Army as the Seismaphone Mk. 1, was supplied during 1916 to every sapper company on the Western Front, as well as to Italy. This device indicated the presence and the exact position of the tunnels of enemy underground sappers; it was the only device adopted by the Army which gave this information, and to the end the enemy did not succeed in counteracting it. By the use of such distance direction-finding gear our sappers were helped in the underground fight which ended in the Germans practically abandoning offensive mining in autumn 1916.

The second may be rapidly covered by a reference to a demonstration given

before an important deputation from the War Office in April 1916, of the means whereby the enemy were then overhearing practically the whole of the messages carried on all telegraph and telephone lines behind our front line to within a depth of three miles, and from a place of safety well behind their own lines, by means of stray electric earth-currents originally generated by the British telegraph or telephone apparatus. The demonstration finished with the trial of the invention which came to be known as "buzzer screens," and which comprised an electrical earth-current barrier set up to defend our lines against the enemy listening-posts. Apparatus embodying the invention was rapidly shipped to France, and for many months the British field telegraph and telephones carried on behind its protection, until our R.E.'s had been able to reconstruct their lines.

The third comprised the invention and design, in 1917, of the anti-submarine device commonly known as the Nash Fish Hydrophone, a device which revolutionised the methods of submarine-hunting by surface ships directed by sound, and for the use of which the Admiralty created a large organisation involving the establishment of a special training school with three large fleets, one for each of the Northern, Southern, and Mediterranean waters, and comprising 300 special ships and destroyers (see Jellicoe, *Crisis of Naval War*). Previously ships could only use a directional hydrophone when dead stopped and in a calm sea, whereas by the use of the Nash gear they could get the direction and approximate distance of submerged enemy submarines without stopping and in a heavy sea. Mr Nash made his headquarters at Portland Dockyard, and during 1917–1918 assisted in the operating and maintaining of the anti-submarine forces.

Mr Nash also participated in the invention and supply of airship telephone equipments, which involved the invention of a throat transmitter insensitive to air-borne sounds, as well as a very special receiver. He made the first flight in an aeroplane, in February 1915, in which communication between passengers and pilot was first satisfactorily carried on by telephone. All the original fleet of coastal airships were fitted with this gear.

Mr Nash was appointed Hon. Technical Adviser to the Admiralty Experimental Station, Portland, in April 1918, and from then on until the end of the war continued experiments on various devices, all of which aimed at the discomfiture of the enemy. In recognition of his services he was made a Commander of the Order of the British Empire.

## MAJOR-GENERAL SIR PHILIP NASH, K.C.M.G., C.B.

Sir Philip Nash is by profession a mechanical engineer, and is a M.I.C.E., M.I.Mech.E., and M.Inst.T. When war broke out he was in India, where he held a high appointment in the Managerial Department of the East Indian Railway. Due to reasons of health, he was invalided from India and arrived in England in March 1915. On the announcement that Mr Lloyd George had been appointed Minister of Munitions in June of that year, Sir Philip obtained the permission of the East Indian Railway Company to volunteer his services, and at the beginning of October was appointed as a Director in the Ministry of Munitions, to deal with the administration of the three Royal Factories, namely, Woolwich, Enfield, and Waltham Abbey, which had a month or so previously been handed over by the War Office to the Ministry of Munitions. At that time the three factories in question were the only sources outside recognised ordnance firms which were producing guns and ammunition, and enormous extensions were being carried out there to increase output. The Minister of Munitions, immediately on his appointment, had embarked upon the policy of constructing National Factories, not merely for the purpose of manufacturing guns, rifles, etc., but also for manufacturing and filling all classes of ammunition.

Early in 1916 Sir Philip Nash became the Director of National Filling Factories under Sir Eric Geddes, and was made responsible for the completion, equipment, and the bringing under production of the fourteen National Filling Factories, the buildings of which were under construction or nearing completion. The difficulties of this task were very great, as the number of experts in filling shells and components was very limited, and the organisation had to depend to a far greater extent than was desirable upon men who, like Sir Philip Nash himself, were without previous knowledge of the intricacies and history of gun ammunition. With the assistance of the staff at Woolwich Arsenal and other places, the difficulties were, however, overcome, and these huge factories, the principal ones of which were situated at Chilwell (Nottingham), Georgetown (Glasgow), Barnbow (Leeds), Quedgley (Gloucester), Aintree (Liverpool), and Hayes (Middlesex), became severally new National Arsenals, each contributing its output to our armies. By the end of May the National Factories were employing something in the region of 150,000 men and women, by far the majority being the latter; and at this time the output had reached a point which showed that Mr Lloyd George's scheme for National Factories was proving a success.

At the latter end of July 1916 Mr Lloyd George, who at that time had become

Secretary of State for War, consulted Sir Eric Geddes on the subject of railway communication behind the British Armies in France. Indications were not wanting that the railway and port facilities, on which the British Armies depended for all their requirements, were becoming insufficient, and that the French railways, upon which the British Expeditionary Force chiefly depended, were unable to cope with the traffic. In this emergency Sir Eric Geddes was appointed by the Secretary of State for War, and with the concurrence of the Commander-in-Chief, to proceed to France and report on the whole matter. The services of Sir Philip Nash were also requisitioned, as were also those of Mr George Beharrell (now Lieut.-Colonel Sir George Beharrell, D.S.O.). Prior to the Commission proceeding to France, Sir Philip made a hurried inspection of the principal ports in England handling war stores for France, in order to satisfy himself that ample arrangements existed on this side to deal with the tonnage required. The Commission proceeded to France on the 1st August 1916, and it was arranged that Sir Eric Geddes should personally investigate the conditions in the forward areas behind the armies, Mr George Beharrell should collect from the Administrative Services at G.H.Q. data to indicate the tonnage of stores required, and Sir Philip Nash should investigate the capacity at the ports and the resources in railway facilities available between the ports and the Front.

Investigation showed that the transportation problem confronting the Commander-in-Chief in France was not merely that of ensuring supplies reaching the armies, but of building up resources of men and material to provide mobility to the armies in the event of an advance. The difficulties were aggravated by the fact that a number of different authorities were responsible for the various functions of transportation. Moreover, the actual operation of the supply trains on which the British Armies depended, including the provision of rolling stock, etc., was in the hands of the French railway authorities. The position of the British Army in the matter of railway requirements was different from that of the French Army, in that the latter, fighting as they were in their own country, could draw supplies from innumerable bases distributed throughout the country, whereas the British Army had to depend for practically everything they required upon four or five ports, which necessitated everything passing over one or two already congested lines of main-line railway. The French railways had recognised their increasing difficulties in dealing with British Army traffic, and previous to the investigation referred to arrangements had been made for the British Army to supply a certain amount of additional rolling stock, etc.; but it was apparent that very considerable increases would have to be made, and at once. The result of the investigation was that Sir Eric Geddes was appointed the first Director-

General of Transportation in October 1916, and Sir Philip Nash, Deputy Director-General of Transportation, with the rank of Brigadier-General. In this capacity Sir Philip was responsible for the supervision of traffic working at the ports and from there to railways; and ensuring that railway and canal through communication was maintained, as also that adequate provision was made for the supply of material and personnel to prepare for an advance. At the latter end of March 1917 Sir Philip Nash was promoted to the rank of Major-General and appointed Director-General of Transportation in France, reporting direct to the Commander-in-Chief.

Important agreements with the French Government on behalf of the railways had in the meantime been concluded, by which the British Army increased their obligation to provide transportation material, as also to undertake to work with their own engines and staff a very large proportion of the services required, resulting in the British Army providing and working a large mileage of railways themselves, providing staff and engines to work under running powers over existing French main-line railways, and, lastly, providing rolling stock for the working of other traffic for which the French would provide locomotives.

The effective strength of transportation troops in France at the end of December 1918 was 2568 officers and 79,965 men, a total of 82,533. Over 34,000 men were engaged on road construction work, while 19,000 were employed on the construction of broad and narrow gauge railways. The remaining troops were distributed over the Directorates of Docks, Mechanical Engineer's Department, Inland Water Transport, Railway Operating Department, Light Railways, Stores and Ports Construction.

At the latter end of November 1917, after the enforced retirement of the Italian armies, and when British and French reinforcements had to be moved to Italy, Sir Philip Nash reviewed the whole question of transportation requirements in France, and he represented that unforeseen developments had been and were taking place which faced the British and French authorities in France with new and increasing difficulties.

As a result of representations made, Sir Philip Nash, with the concurrence of the other Allied Governments, was instructed to investigate and report on the whole matter of Allied transportation facilities between the North Sea and the Adriatic, which covered the capacity and use of trans-continental routes, resources, etc. The result of this investigation showed the necessity for setting up some organisation to co-ordinate the various interests involved in railway movement, and to adapt the introduction of British and American railway practice to the conditions and methods met in France. His recommendation,

which was accepted in March 1918 by the various Governments concerned, was to set up a new Allied Transportation Authority, on which each Ally would have a representative, with important functions of formulating schemes for movement, ensuring that Allied resources of transportation material and personnel as a whole kept pace with requirements, and that railway lines of communication on the Continent were, when necessary, made available for military purposes, which entailed continuous negotiation with the Government departments responsible for the administration of civil Continental railways. It was essential to provide for Allied military requirements on the railways with as little disturbance of civil and industrial traffic as possible. Sir Philip Nash became the British representative, and at the same time became Inspector-General of Transportation of the British Armies on the Western Front, which appointment he held until January 1919. At this time the demobilisation of the British Army was being rapidly carried out, and one of the principal difficulties experienced was the movement of men from the Western Front and other places to England for the purpose of demobilisation. The Cabinet had charged Sir Eric Geddes with the responsibility of co-ordinating the process of demobilisation in all its branches, and Sir Philip Nash was put on special duty in that organisation for the purpose of dealing with the important aspect of movement. On completion of this work he was demobilised from the Army on the 15th August 1919, when he took up the appointment of Director-General of Traffic in the Ministry of Transport.

Sir Philip was created C.B. in 1917, K.C.M.G. in 1918, and was made Commander of Legion of Honour; Commander of Order of Leopold; Grand Officer of Order of Crown of Italy; Officer of St Maurice and St Lazarus; and received the American Distinguished Service Medal and the Croix de Guerre.

## HER GRACE THE DUCHESS OF NORFOLK, Arundel Castle, Sussex

THE Duchess of Norfolk had occupied the position of President of the Red Cross, Sussex Branch, as far back as 1905. She was, therefore, in an excellent position to render valuable service when the war broke out, and in her capacity as President carried out a considerable amount of organising work and other activities connected with this. She also devoted a large amount of her time and energy to raising funds for "Our Day," and was so successful that an amount of £60,000 was subscribed towards this object in the county of Sussex. The Duchess also set aside a large number of rooms at Arundel Castle for the benefit of wounded

officers, to whose welfare she devoted herself. The late Duke of Norfolk's residence, Norfolk House, St James's Square, W., was loaned to the Overseas Club for the use of all colonial ladies who visited London. In the management of this institution great credit must be given to Lady Hilda Murray and others associated with her in the work. The regard in which the Duchess of Norfolk was held by those for whom she sacrificed her time and energies was indicated in the presentation of a handsome silver and shagreen writing set when the club was closed. In addition to these activities, the Duchess established a home for incurable soldiers at Littlehampton, in which work she was ably assisted by Miss Mansbridge and Lady Percy St Maur. The Duchess also took a very keen interest in infant welfare in the same town.

The regretable death of the Duke of Norfolk terminated the valuable services which he was engaged in for his country. Among the activities with which he was associated was a club which he organised at 38 Grosvenor Gardens, devoted especially to the benefit of Roman Catholic chaplains from overseas. Although his death interrupted the work, the Duchess devoted herself to carrying out his wishes until the end of the war. She was supported by the untiring energy of Mrs Moran, and it was regarded by those for whom it was founded as a home of rest. The late Duke was also deeply interested in the Belgians, and the Duchess was presented with the Médaille de la Reine Elizabeth.

THOMAS HORROCKS OPENSHAW, C.B., C.M.G., M.S., M.B., F.R.C.S. (Eng.), L.R.C.P. (Lond.), L.S.A. (Lond.), 16 Wimpole Street, W., and The Schae, Godmanchester; Senior Surgeon and late Lecturer on Anatomy and Surgery to the London Hospital; Surgeon to King Edward VII.'s Hospital, Royal National Orthopædic Hospital, and Royal Surgical Aid Society; Fellow of the Royal Medical, Chirurgical, Hunterian, Chemical, and Pathological Societies; served in South African War as Surgeon to Imperial Yeomanry Field Hospital and P.M.O. No. 3 Medical Hospital at Pretoria; prisoner of war; mentioned in despatches; received order of C.M.G. 1900; Lieut.-Col. R.A.M.C. Vol., attached to Lincolnshire Imperial Yeomanry; Master of the Wheelwrights' Company 1914–1918; member of the Glovers' Company, Apothecaries' Company, and Barbers' Company.

At the outbreak of the Great War, Mr Openshaw, already a Lieut.-Col. in the R.A.M.C. Vol., accepted the position of Chief Surgeon to the Queen Mary's Naval Hospital at Rosyth. This hospital was erected at the expense of Alfred Mosely,

Esq., C.M.G., and was accepted by H.R.H. Princess Christian, and was by her presented to and accepted by the Navy. It contained 100 beds. Mr Openshaw obtained permission from the War Office to accept the appointment, and gathered together a staff of seventeen doctors from the London Hospital for the work. He devoted three months entirely to this service, at the end of which time the hospital was taken over and was administered by the Naval authorities.

After his return to London, he was struck with the number of men who had obtained artificial limbs from Chelsea which were unsatisfactory, and in conjunction with Mr Charles Kenderdine (now Sir Charles) he organised a central institution at Roehampton Hospital for the limbless. Mr Openshaw obtained the assistance of five of the best orthopædic surgeons in England, thus providing a staff whose consultative opinion in the matter of supply of artificial limbs was accepted by the Ministry of Pensions as the acknowledged authority.

Queen Mary's Auxiliary Hospital for the Limbless at Roehampton was started in June 1915 with 100 beds, and at that time only 200 patients were waiting for artificial limbs. So urgent became the demand for these limbs, that in December 1917 no less than 3500 men were waiting to be supplied, in spite of the fact that the establishment had been increased to 900 beds. To meet these requirements it became necessary to decentralise and organise other centres of supply. On the advice of Mr Openshaw, Sir Charles Kenderdine brought these facts to the notice of the Minister of Pensions, and was appointed Director of Artificial Limb Supplies. Centres were opened in Manchester, Liverpool, Leeds, Birmingham, and Exeter. A London centre was established at the Charterhouse Military Hospital, where a complete school of instruction in the use of artificial limbs for the upper extremity was inaugurated. This educational establishment having been found a success, it was copied at Roehampton, and the splendid services of Captain Maxwell, the teacher at Charterhouse Hospital, were loaned by the Ministry of Pensions to Roehampton. Owing to the increasing necessity of repairs to artificial limbs, it became imperative in February 1919 to establish some central institution in London where repairs could be undertaken. Sir Charles Kenderdine took over six houses in Queen's Gate, capable of housing 200 men whilst their limbs were being repaired in the workshops equipped in the basements of these houses. (This central organisation has many other advantages, amongst them being the saving of carriage and transport, as well as time in the execution of the work. Indeed, the institution is so excellently equipped that it should be established as a permanent organisation.) The surgical arrangements of fitting, examining, and ordering the necessary repairs were under the control of Mr Openshaw.

In May 1915 Mr Openshaw was appointed by the Army Council Consulting Surgeon to the Eastern Command, having under his control some 300 hospitals, accommodating 50,000 beds. He operated regularly at twenty different hospitals, and travelled more than 60,000 miles in prosecuting his work as Consulting Surgeon.

In April 1916 he was lent to the Army in France for two months as Consulting Surgeon, during the immense rush of surgical work resulting from the great Somme " push." At Camiers he had under his surgical direction some 12,000 beds.

In August 1918 he was despatched to Italy as the head of a medical mission to investigate " cineplastic amputations." To carry out this task he travelled all over North Italy, and the report which Mr Openshaw made had the beneficent result of saving many limbs from mutilation.

In 1917 Mr Openshaw contracted acute septimæmia, the result of an injury sustained whilst operating upon the matron of a V.A.D. hospital. After some months of acute illness he recovered, and returned to his pre-war work as Senior Surgeon at the London Hospital and Surgeon to the Royal National Orthopædic Hospital.

## MISS EILEEN O'SULLIVAN, 26 Belle Vue Gardens, London, S.W. 9

Among the women who played a prominent part in war work, there were a considerable number who showed great ability in organising and administrative work. Miss O'Sullivan was specially selected by the Government to undertake the onerous and responsible duties of Controller of Clothing for the women of the Royal Air Force. She was known as Assistant Commandant and Clothing Controller, with the rank of Staff Major and Officer-in-Charge of 9–13 Wellington Street, Strand, W.C., which was the headquarters for supplying women's equipment, where, in conjunction with an extensive staff of men and women, she carried out her onerous work. These duties were exceptionally difficult owing to the transfer of something like 12,000 personnel from other women's organisations before a full complement of officers had passed through the training school. The extent of the work rapidly developed as, within six months, preparation was made to supply over 30,000 women with uniforms and equipment. In this connection Miss O'Sullivan also had to deal with the problem of securing the necessary materials, and had to break down the monopoly to enable her to obtain

these. In spite of the responsibility associated with this work and the extensive administrative duties, she also found time to deliver lectures to probationary officers at the Training College; she also inspected camps in order to ascertain the

Miss Eileen O'Sullivan and her staff

requirements in regard to equipment. Arrangements were made for probationary officers to pass through a special course of training in book-keeping, Army forms for requisitioning, etc., at Wellington Street, under her personal supervision. Miss O'Sullivan was one of the first staff officers to be appointed to the Women's Royal Air Force, and remained until the force was disbanded.

### MRS OSBORNE, 10 Beaufort Gardens, London, S.W. 3

From the beginning of the war Mrs Osborne devoted her time and energies to the care and comfort of the wounded, and by her generosity and devoted services did much to alleviate their sufferings. Her house in London was practically a home both to wounded and to numberless soldiers from overseas who were friendless in London. She was elected President of the Australian Ladies' Committee of the Star and Garter Fund, and it was largely due to her personal exertions that a room was endowed at that institution for soldiers, in memory of their Australian comrades who fell in the war. She represented Australia on the Committee of the Victoria League Soldiers' Clubs, whose work, under the presidency of the Dowager Countess of Jersey, is referred to elsewhere in this volume. Mrs Osborne was one of the first members of the Australian War Contingent, under the presidency of the late Sir George Reid, and a member of the Australian Red Cross. In addition to these war services, which were greatly appreciated, no appeal which had for its object the comfort and well-being of the sick or wounded was ever refused by her.

### ALDERMAN SIR GEORGE PHILLIPS PARKER, O.B.E., 15 Bloomsbury Square, London, W.C. 1

When war broke out Sir George Parker held the office of Mayor of Holborn, a position to which he had been elected in 1913, and continued to hold until 1919. By reason of this position he was *ex officio* member of all Committees of the Borough Council and Chairman of all local Committees connected with matters relating to or arising out of the war. These included the Emergency, War Pensions, War Savings, and Recruiting Committees, each of which engaged in extensive work for the benefit of the fighting forces and for aiding the requirements of the War Office. During the period in which these Committees exercised their useful functions the questions with which they dealt were conspicuously advanced, and the welfare of the men and their families cared for and improved. In connection with the War Savings Fund no fewer than 100 branches were founded within the Borough of Holborn, and resulted in a very considerable contribution to this national movement. Sir George was also Chairman of the local Military Service Tribunal as well as of the local Food Control Committee, both offices involving

a considerable amount of time and administrative work. He also raised a fund for the purchase, equipment, and formation of a Red Cross Hospital at Roehampton, which was subsequently taken over by the Ministry of Pensions, and is devoted to the treatment of shell shock and mental cases. In 1914 Sir George was decorated by H.M. the King of Denmark with the Royal Order of the Danebrog. In 1918 Sir George Parker was created an Officer of the British Empire, and in April 1919 the honour of knighthood was conferred upon him in recognition of his valuable services during the war. He is a member of the firm of Woodcock, Ryland, & Parker, Solicitors, of 15 Bloomsbury Square, W.C. 1.

## THE HON. SIR CHARLES ALGERNON PARSONS, C.B., F.R.S., LL.D., D.Sc., J.P., 1 Upper Brook Street, London, W. 1

FOURTH surviving son of the late Earl of Rosse. Commenced his engineering experience in the workshops at Birr Castle, where his father's great telescope was constructed. Entered Sir W. G. Armstrong & Co.'s works at Elswick in 1877; 1884–1889 in partnership with Clarke, Chapman & Co., and commenced work on the steam turbine, primarily for driving dynamos.

During the war Sir Charles Parsons rendered important services on various Committees dealing with engineering and industrial questions. His wide and intimate experience in these directions gave him a position of authority in the Advisory Council for Scientific and Industrial Research, constituted in 1915. The whole forces of the country were concentrated on the solution of the numberless problems which arose under the new conditions, and the constant change in these demanded the greatest skill and ingenuity to cope with them. Sir Charles Parsons had from his early years proved his disinclination to move along the beaten track of old methods and processes, and this made him a valuable adviser on the Central Board of Inventions and Research, presided over by Lord Fisher, formed in 1915. After two years of war the Government, appreciating the vital importance of the manufacturing interests of the country, appointed Committees under the Board of Trade to consider and report on the position, and Sir Charles Parsons was Chairman of the Electrical Trades Committee. The difficulty of providing the necessary amount of power for engineering and industrial uses was also very evident, and a Committee under the Board of Trade was set up in 1916 to ensure adequate and economical supply of electric power for all classes of consumers in the United Kingdom, and on this Committee Sir Charles served as a member.

In the same year the Government were compelled to recognise that definite steps would have to be taken in the direction of the reorganisation of trade after the war, and Lord Balfour of Burleigh undertook the formation of Committees for inquiring into the varied subjects involved and report thereon. Of this Committee Sir Charles was a member, and the conclusions arrived at and the recommendations made were far-reaching and of vital import to the future welfare of the industries of this country. He also acted as a member of the Committee formed in 1915 to report on the efficiency of the Royal Aircraft Factory, and in 1916 of the Royal Flying Corps. From this year to 1917 he served on the Central Committee on Tanks. He is also a member of the Fuel Research Board under the Privy Council. In addition to these national services, he was also Chairman of the Committee of the War Office on artificial limbs for soldiers from 1915 to 1917.

SIR CECIL PARTRIDGE, K.B.E., 100 Victoria Street, London, S.W. 1

In June 1915, when a very great increase in the number of shells was urgently required, the Metropolitan Munitions Committee was organised. This Committee had among its members many of the leading business and scientific men of London, Sir Cecil Partridge, late General Manager of the Central London Railway, occupying the position of General Manager. On the 15th of that month Mr Lloyd George met the members of the Committee, and emphasised the necessity of augmenting the supply of fuses and gauges, and appealed to the business community of the Metropolis to take immediate and energetic steps to meet the emergency of the moment. The response to this appeal is reflected in the fact that no less than 8,257,301 shells of various types and sizes were produced, components to the extent of 42,109,702, small parts for fuses over 59,000,000, sundries over 32,000,000, gauges 248,486, trench warfare articles 659,577, aeronautical general standard parts 625,255, in addition to which over 3,000,000 fuses were assembled during the war period. With the object of carrying out the work efficiently and rapidly various executive Boards were appointed, the General Committee acting as an Advisory body in a consultative capacity. The scheme adopted for securing the utmost production was the division of the Metropolitan area into ten districts. The counties of Kent and Surrey and South-east Essex were subsequently added to the Committee's area. The difficulty against which the Committee had to contend was

the fact that the War Office and Ministry of Munitions had already secured the assistance of the most important firms within the London area, and this necessitated the Committee seeking out and relying upon smaller contractors for the output required. Many obstacles had to be surmounted, not only in the selection of firms, but in so equipping these that they were enabled to render effective service in the production of munitions. The results attained prove how admirably the work of organisation was carried out. Few of these factories were provided with inspection on the premises, and six area depôts were, therefore, established for this purpose. Through these depôts no less than 176,789,000 articles of munitions were passed during the period they were in use, while in a single week as many as 1,309,620 articles were passed through the stores. In order to obtain the greatest production of fuses it was found advisable to subdivide the work of manufacture. Contracts for the machining of bodies and caps were, therefore, placed with one class of contractor, the production of small parts with another, the work of assembling the complete fuse being undertaken by the Board at a central depôt. One of the most important accessories in the production of munitions was the supply of a large number of precision gauges. A special department was created to deal with this important matter, and a large number of skilled mechanics in a small way of business were found. Their skilled workmanship was carefully nurtured, and resulted in a valuable output of gauges, nearly a quarter of a million being produced. When it was realised that a grave shortage of labour had to be faced the Education Department of the London County Council organised the London Technical Institutions into manufacturing centres, and undertook the making of gauges for the Committee, maintaining a steady and regular output, which was of the greatest value to the country. A total of 70,000 precision gauges was manufactured by these institutions. The Board were also faced, as were the majority of other manufacturing establishments throughout the country, with the difficulty of providing not only the adequate plant but the necessary skilled labour. To overcome this the Committee established a labour department, which did excellent work in this direction.

## MAJOR-GENERAL HIS HIGHNESS THE MAHARAJA OF PATIALA

THE record of the services rendered by the Indian States and their rulers is one of the brightest in the history of the four eventful years of the war. It is not too much to say that each State vied with the other in its service to the Empire, and that the ruling Princes devoted the whole of their time and energy to providing the Motherland with all the support and co-operation which she so greatly needed at that time. At the outbreak of the war, His Highness the Maharaja placed unreservedly at the disposal of the Indian Government the whole of the resources of the State, and through his unremitting efforts it was enabled to contribute a continual supply of men, money, and material throughout the period. After the Russian débâcle in 1917, His Highness was invited by the Viceroy to sit on the Central Recruiting Board, and in response to the British Prime Minister's appeal in April 1918 he immediately offered to raise three new battalions for active service at the Front. He also took a leading part in the Indian War Conference which met at Delhi during the same month, and in consequence of his zealous efforts in the interest of the Empire he was selected, in 1918, as one of India's representatives on the Imperial War Conference and the Imperial War Cabinet. During the period of the war the State of Patiala contributed no less than 125,000 men, the Patiala Imperial Service troops serving in all the main theatres of war, and having to their honour 125 distinctions. The cost of maintaining these fighting forces, which amounted to over 60 lakhs, was borne by the State; and, in addition to this, it provided 1500 camels, 259 mules, and 400 horses for the Transport and Remount Departments. His Highness the Maharaja personally visited the Allied Fronts in Belgium, France, Italy, and Palestine, receiving the highest honours that the Governments of these countries could confer. The State also contributed extensively to the War Loans, to the extent of 35 lakhs of rupees; while during the currency crisis, which was among the many difficulties the Empire had to face, the Patiala State, by a timely loan of 10 lakhs of silver coin, which was contributed free of all interest, greatly assisted in tiding over the critical period. The State contributions in money totalled altogether 1½ crores, and in material, approximately 9 lakhs.

For his invaluable services rendered to the Empire the King-Emperor invested him with the insignia of a Knight Grand Cross of the Order of the British Empire, while he was also raised to the rank of Major-General. His Highness was also appointed Honorary Colonel of the 15th Ludhiana Sikhs, and also Honorary Colonel to the newly organised 1/40th Patiala Infantry. As a further recognition

for services rendered by the State, His Highness and his successors were exempted for all time from the presentation of Nazar—a concession which had been originally granted to the Ruler of Patiala State for services rendered by the Maharaja Karam Singh, but the perpetual nature of which had, after the reign of the Maharaja Narinder Singh, been allowed to lapse. The personal salute of His Highness was also raised from seventeen to nineteen guns.

MRS PEABODY (*née* KATHLEEN BURKE), 20 Nassau Street, New York City, U.S.A.

AFTER working for several months among the refugees in Belgium, Mrs Peabody joined the Scottish Women's Hospitals organisation in January 1915. In February of the following year she started on a mission to America to raise money for the hospitals by public speaking. On many occasions she addressed audiences of 12,000 to 15,000 persons, and so energetic and so successful was her campaign that no less a sum than 3,000,000 dollars was raised, as a direct result of her oratory. On her return from America she was sent by the French Government in July 1916 into the besieged citadel of Verdun, where she acquired her quaint cognomens of "La Petite de Verdun" and "Knight of Tenderness and Pity across the World," both of which were coined for her by Maréchal Petain on account of her practically world-wide pleading for the wounded.

Mrs Peabody was the only woman sent officially by the British Government to the front lines, and was in Ypres in January 1918, and with the victorious 4th Army of General Rawlinson, and the 1st Army of General Horne, in October 1918. She spent the last day of the war in Verdun with the American Army, of which she is an Honorary Colonel of the 138th Field Artillery.

Mrs Peabody recorded her experiences in the famous French fortress in a book entitled *The White Road to Verdun.*

For her very valuable services Mrs Peabody was awarded the C.B.E. in 1918, and created a Knight of St Sava (Serbia), Officier de l'Instruction Publique (France), etc., receiving ten decorations in all.

## THE HON. G. F. PEARCE (Minister of Defence, Australian Commonwealth)

At the outbreak of war a Federal Election was proceeding in Australia. This election brought a Labour Government into power, with the Rt. Hon. Andrew Fisher as Prime Minister, and with Senator Pearce as the Minister for Defence. At that time the portfolio of Defence embraced both Navy and Army, but, in order to co-ordinate the work and operations of the Imperial Fleets, the Australian Navy was placed directly under the orders of the Admiralty. The work of the Navy Department in Australia was, therefore, restricted to use of vessels remaining in Australian waters, and to providing reinforcements for the crews of Australian ships operating in other waters.

The most important functions of the Minister of Defence were, therefore, those which concerned the raising of the Army for service in the field. This involved a very great amount of organisation and detail work, and the efficiency with which this was carried out is reflected in the fact that from the outbreak of hostilities, and during their continuation, over 416,000 men enlisted in the Australian Imperial Force. Of these, 329,785 were actually sent oversea. The Minister of Defence was also responsible for the provision of munitions, and under his régime the existing munition factories in Australia were extended and additional ones erected. It is a fact worthy of note that the first draft of Australian troops which left the Commonwealth, numbering over 30,000, were placed in the field, fully equipped from Australia, without having to call upon the War Office for any assistance. More than this, however, was achieved, for supplies of raw material to be ultimately worked up into munitions were shipped to the United Kingdom for use in the Home Country. At the same time, large quantities of small-arm ammunition were supplied to the South African Government for the German West African campaign, and cordite, for the manufacture of small-arm ammunition, to the New Zealand Government. Throughout the whole of the Gallipoli campaign, not only were the rifles supplied to the Australian troops manufactured in that country, but the small-arm ammunition was of Australian manufacture.

An Intelligence Branch was also inaugurated at the commencement of the war, and valuable information was transmitted to the War Office as a result of its investigations and activities. At the same time the Censor's staff, acting in conjunction with the British Censorship, was actively employed checking enemy propaganda and dealing with the ramifications of enemy trade.

The transportation of troops from this far-distant land was also a conspicuous

achievement, and that it was carried out without any serious loss of life from either disease or mishap is sufficient testimony to the excellent organisation provided by the Ministry of Defence in connection with this great project.

The political atmosphere was considerably disturbed in Australia during the war, as it was in other countries, and Parliamentary elections were so frequent that Senator Pearce was called upon to contest two Parliamentary elections and two Referendum campaigns. No less than four different Governments were formed during this period, and Senator Pearce had the unique record of holding the portfolio of Defence in each one.

It is interesting to note that at the outbreak of war Australia was the only Dominion which had devoted any attention to military aviation, the movement being inaugurated by Senator Pearce himself in 1911. The outcome of this was that, when hostilities commenced, Australia was able to put six fully trained squadrons into the various theatres of war. The Commonwealth Government also dispatched wireless squadrons which co-operated with the Army in Mesopotamia.

The Australian Medical Services have, with other branches of the Army, rendered invaluable and heroic work; while Australian nurses served not only in the fields of war where her own soldiers were fighting, but also in India and in Salonika.

The conquest by the Australian Naval and Military Expeditionary Force of the German colonies around New Guinea brought the administration of these colonies, during the military occupation, under the command of the Defence Department, and, therefore, under the ministerial direction of Senator Pearce, entailing a large amount of administrative work.

In March 1919 Senator Pearce arrived in England to take ministerial control of the demobilisation and repatriation of Australian soldiers, and the whole of the forces in the Home Country were returned to their native land within the short period of a year from the signing of the Armistice.

## LADY PERROTT, R.R.C., 44 Queen's Gate, London, S.W. 7

In her dual capacity as Lady Superintendent-in-Chief of the St John's Ambulance Brigade, and Lady Commandant-in-Chief of the St John's Voluntary Aid Department, Lady Perrott had, in pre-war days, been responsible for organising these departments, and so thoroughly and efficiently had that work been carried out that when war broke out she was able to despatch, at forty-eight hours'

notice, the first draft of eighty trained nurses to Belgium, and within a few days another draft of forty. Lady Perrott also undertook the organising work necessary for the calling up of V.A.D. members from all over the country for service in military hospitals both at home and abroad, and over 2000 of these members passed through her hands before the Joint Committee was formed, which eventually took over this branch of the work. On the outbreak of war she at once proceeded to organise the Trained Nurses' Department of St John's Gate, and obtained the assistance of a staff of fully trained matrons who investigated the qualifications of every applicant before passing them for service. The work of this department grew so rapidly that, on Lady Perrott's suggestion, it was put in charge of Dame Swift, who was appointed Matron-in-Chief, and who continued to act in that capacity when the department was subsequently taken over by the Joint Committee.

In August 1914 a Woman's Committee of the Order of St John was formed, of which Her Majesty the Queen graciously consented to be President, with Her Grace, the late Austine, Duchess of Bedford, as Chairman, and Lady Perrott as Honorary Secretary. This committee, on Lady Perrott's initiative, inaugurated the St John's Warehouse, which rendered valuable service throughout the whole period of the war. In those early days Lady Perrott was able to send, in addition to the drafts already mentioned, two complete hospital units to Antwerp, at the request of Sir Francis Villiers.

The Reception Committee, which undertook the provision of hospitality for overseas nurses, was also organised by Lady Perrott. She was also Honorary Secretary to the Personnel Committee, formed under the Joint Committee, which was the means of sending complete hospital units to Serbia and Montenegro.

She also organised and ran a large St John's Depot at Halkyn House, Belgrave Square; was one of the original committee which organised the St John's Brigade Hospital in France; and was herself the means of collecting a sum of over £16,000 for that purpose. During the whole period of the war Lady Perrott served as a member of the Joint Committee of the Order of St John and the British Red Cross, and was from the date of its formation an indefatigable member of the Women's V.A.D. Committee. She visited France twice, making a tour of inspection of all the hospital stores, depots, and rest stations, and, during a period of extreme pressure, performed nursing duties at the St John's Brigade Hospital at Etaples. For her valuable services Lady Perrott was awarded the Royal Red Cross (First Class), and was presented with the Médaille de la Reine Elizabeth by the King of the Belgians.

COLONEL SIR HERBERT C. PERROTT, BART., C.B., Titular Bailiff of Egle and Knight of Justice of the Order of St John, 44 Queen's Gate, London, S.W. 7

SIR HERBERT PERROTT'S work in connection with the Order of St John of Jerusalem covers a period of over forty years, and the growth of the Order from what was in reality a small private philanthropic body in its early days to a national asset of enormous proportions and activities is very largely due to Sir Herbert's personal efforts and unflagging zeal.

From 1875 to 1915 he was an executive officer of the Order, and until 1888 held the office of Assistant Secretary. Sir Herbert's father, the late Sir Edward G. L. Perrott, had been the connecting link between the old Order at Malta and the revived English Langue, and in his son he left a worthy successor for the carrying on of the work he had at heart. In 1875, when Sir Herbert took office, the Order was in a very different position from that which it now holds. It rented one small room at St John's Gate as its headquarters, and its invested capital and income were insignificant. The St John's Ambulance Association and its offshoots did not exist in those days. During his tenure of office the whole of its original premises and much of the adjoining property have become the Order's freehold, and its present assets stand at considerably over £73,000. Appointed Secretary to the Order in 1895 by King Edward VII. when Grand Prior, Sir Herbert held that office until 1910, when he was appointed Secretary-General by King George V. He remained Secretary-General until 1915, when His Royal Highness the Duke of Connaught, Grand Prior of the Order, vacated the office of Bailiff of Egle, which he had held for some years, and promoted Sir Herbert thereto as a special mark of approval for his long and valuable services. It will be recognised, therefore, that the whole of the organisation and development of the Order has been carried out under his supervision, and much of it on the direct result of his own initiative. In 1877 the Order conceived the idea of starting the St John's Ambulance Association as a civilian reserve to the Army Medical Department, which might be utilised in time of war. It was, soon, however, brought to the notice of the Executive of the Order that a general knowledge of "first aid" in civil life in times of peace was equally as important as the original aims of the Association. This brought about the extension of the Order's Ambulance Department into its two great branches, *i.e.* the St John's Ambulance Association and the St John's Ambulance Brigade, both of which now have units in every part of the Empire.

The magnificent work of these departments is so well known and so highly appreciated that no detailed description of their achievements need be attempted here. The following statistics are, however, of interest as indicating something of the magnitude of the work done by the Order during the Great War. 14,472 men and 29,800 women were enrolled in V.A.D.'s for service in connection with transport and for staffing military and auxiliary hospitals; and 235 hospitals were established, with an aggregate of 15,537 beds. This does not include the St John's Ambulance Brigade Hospital at Etaples, which had 744 beds; while the St John's Hospital at Southport was the largest V.A.D. hospital in England. It is to be noted that over 30,000 members of the St John's Ambulance Brigade were mobilised for service. The Order has been incorporated by Royal Charter, in which the Ambulance Association is described as a "foundation," and the Order has another "foundation," the British Ophthalmic Hospital at Jerusalem; and by statute, under the terms of the Charter, the King of England succeeds, *ex officio*, on accession to the throne to the office first held by Queen Victoria, of Sovereign Head and Patron.

During the war Sir Herbert served as Vice-Chairman of the Joint Committee of the Order of St John and the British Red Cross Society. For his services he was made a "Companion of Honour," and H.M. the King of the Belgians conferred on him the Cross of Commander of the Order of the Crown.

## SIR PERCIVAL PERRY, K.B.E., Ewell Place, Ewell, Surrey

ONE of the most acute and vital problems with which this country was faced during the years 1916–1919 was the provision of food for the population at home and for the armies in the various fields of war. The area of land under wheat and barley had for many years shown a very decided and dangerous decline, and the normal importation of cereals had been seriously hampered both by the diversion of ships to war purposes and by the submarine campaign of Germany. Had the recommendations of the Milner Committee been acted upon immediately the situation in regard to home-grown supplies would have been more favourable, and the crisis would have been considerably minimised. This decline in land cultivation brought another disability in its train, in the form of inadequate agricultural machinery and appliances. The need was of extreme urgency, and in order to meet it Sir Percival Perry was appointed Director of the Machinery and Implements Section of the Food Production

Department. This Department was formed for organising the distribution and operation of motor tractors and ploughs in order to augment the area of spring ploughing and to deal generally with all questions affecting agricultural machinery and implements. Previous to this, attempts had been made to organise the work through the instrumentality of the War Office. Sir Percival Perry, however, decided that, owing to the shortness of time available for spring ploughing (only seven weeks), it was not practicable to depend on War Office organisation to secure satisfactory results. The Director-General, Lord Lee of Fareham, agreed with this conclusion, and gave him general authority to use such other effective means as could be procured. The task was a stupendous undertaking, and immediate steps were taken and organisation put into operation to purchase all tractors and ploughs available for purchase in the United Kingdom, and to control the use of privately owned tractors in order to increase their efficiency.

Such tractors and ploughs as could be purchased from implement dealers and those privately owned and loaned by their owners were placed under the control of the best motor engineers in the various localities throughout the country, who were responsible for the working and upkeep of the tractors and the supply of petrol and labour.

This plan was adopted in order that the experience of men who had handled internal combustion engines might be utilised, and also to procure assistance from local tradesmen in small urban and rural districts resident as near as possible to the spot where the tractors would be employed in ploughing operations. Local influence and other means available were relied upon to procure labour, which, in the aggregate, was of necessity of amateur class, to operate tractors and ploughs. They were also responsible for obtaining and supplying paraffin, petrol, etc., in order to facilitate the conveyance of drivers and ploughmen between their homes and the rural district where the various tractors were working, and for the mechanical maintenance of the machinery entrusted to them.

A basis of remuneration for such services was fixed, and, in order to provide as good a check as possible upon the spending of public monies, and so that the Department might be able to furnish details of its work, a system of returns, necessitating considerable clerical work, was adopted. The underlying principle concerning finance governing these arrangements was to ensure the payment of wages to some thousands of employees, purchase of supplies, etc., under adequate supervision and control, without the necessity of distributing Government funds and property in rural districts throughout the country. Organisation was also

set up for the consideration of demands for material and labour made by manufacturers, repairers, and users of every class of agricultural machinery and implements in the country, together with the inspection and valuation of tractors and implements purchased from implement agents.

Owing to the shortness of time available for ploughing the Director-General ordered that every available machine should be worked twenty-four hours per day seven days per week. This continuity of working also involved the provision of means of lighting 600 tractors and ploughs, and procuring and transporting electric batteries, acetylene gas, carbide, etc.

Probably there were not a hundred men available in the country capable of driving farm tractors, and, apart from the employees of the manufacturers, very few possessed any knowledge of their mechanical construction. But apart from this, none of the ploughs in the country were adaptable to mechanical working, and the distribution of fuel throughout rural districts was inadequate to provide for the enormous consumption of the engines. It will be readily appreciated, therefore, how great were the difficulties presented, and difficulties which could only be overcome by the exercise of great organising ability and knowledge of the motor engineering industry. Very valuable assistance was rendered to Sir Percival in dealing with the problem by Mr A. N. Mobbs, O.B.E., Mr Anthony Hall, M.B.E., and the National Organisation of Motor Dealers in Great Britain.

Mechanics from every rural district in which it was expected tractors would operate were given special instruction in their manipulation, and railway trucks from all over the country had to be collected for the transportation of tractors to the various ploughing areas. Upwards of 4000 drivers, ploughmen, mechanics, supervisors, and inspectors, working in every part of England and Wales, together with the executive staff in London, were procured without assistance from any established authority with the exception of the War Office, who supplied less than one hundred men.

In view of the fact that so few tractors existed in this country, steam tackle sets had to be employed to augment the machinery available. There were in England and Wales, approximately, five hundred sets, though the majority of these were out of operation because of lack of labour and material to keep them in repair. To rectify the deficiency of the former some hundreds of expert men were returned by the Army Authorities to assist, and in a short time 452 steam tackle sets were fully manned and working with excellent results. Mr John Allen, O.B.E., and Mr C. M'Robie Turrell rendered great assistance in this branch of work.

The necessary organisation was created within a period of seven weeks, and in spite of unpropitious weather, satisfactory results were being obtained when Sir Percival Perry was asked to relinquish his position at the Food Production Department and to act as Director of the Manufacturing Section of the Agricultural Machinery Department.

The world's output of tractors was limited, and practically none had been made in this country or in Europe. Such as were available came from the United States of America, and statistics showed that by every known method of production only five thousand additional tractors could be obtained for utilisation in increasing the 1918 crops. It was, therefore, decided to create the Department referred to to undertake the manufacture of an agricultural tractor from designs placed at the disposal of the Government by Mr Henry Ford, and to make arrangements to ensure an adequate supply of agricultural implements manufactured both in this country and imported from abroad.

Sir Percival Perry took up his duties in this Department at the end of April 1917. The specific duties entrusted to him at the commencement of his appointment were the supply and control of manufacture of agricultural machinery, and in particular the supervision of the scheme for manufacturing under Government control the official M.O.M. (Ministry of Munitions) tractor.

In March 1918 Sir Percival was asked to accept the position of Deputy Controller of the Mechanical Warfare Department. A considerable amount of reorganisation was found necessary to cope with the requirements of the programme of tank production, and, under Sir Percival's direction, the Department was divided into the following sections: Administrative, Design and Drawing Office, Materials, Supplies, Inspection, Experimental, Testing, Transportation, Statistics. Special sections of the Contracts and Finance Departments of the Ministry were also attached. Reorganisation on this basis undoubtedly contributed to the efficiency of the Department and the increased output of tanks. Upon the formation of the Tank Board in July 1918 Sir Percival Perry became a member of that Board.

In August 1918 Sir Percival Perry was called upon to take the Directorship of Traction-Mechanical Warfare Department, the object of which was to design and to supply to the Army military tractors (based upon an experimental tractor designed and built by Colonel Newton, Trench Warfare Department) as demanded by the Army Council. A huge production of these machines was called for by the War Office within a limited time, owing to which arrangements had to be made for the supply of standard power units in enormous quantities from U.S.A., the hulls and other parts to be manufactured in Great Britain.

To carry out this programme factories at Manchester were acquired for the purpose of assembling tractors, and a testing ground in close proximity was secured. The necessary organisation for obtaining the supply of the parts to be manufactured in this country having been formed, Sir Percival Perry, accompanied by technical experts, proceeded to America to place contracts for the necessary power units. Under his direction experimental tractors were manufactured and tested in America with highly satisfactory results. This necessitated a section being organised in that country for dealing with the American production and supplies of spare parts, which had been successfully installed when the work of the Department was suspended, due to the signing of the Armistice.

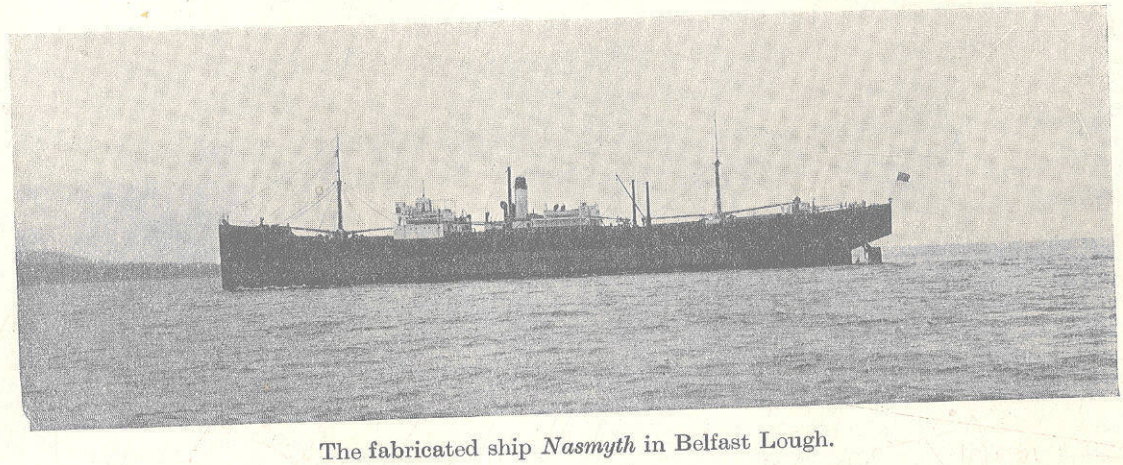
## SIR LIONEL PHILLIPS, Bart., D.L., J.P., Arcadia, Johannesburg, South Africa

Sir Lionel Phillips, who for many years has been closely identified with the gold-mining industry in the Transvaal, and who was one of the four leaders of the reform movement condemned to death in connection with the Jameson Raid, reprieved, and subsequently released, placed himself and his specialised knowledge unreservedly at the disposal of the Government when war broke out. He was appointed Controller of the Department for the Development of Mineral Resources in the United Kingdom, under the Ministry of Munitions, in which capacity he rendered valuable services in fostering and developing our natural resources to meet the ever-increasing war-time demands of raw material. Sir Lionel also served on Lord Crewe's committee, appointed to examine and report on the possibilities of the production of fuel oil from home sources. He is one of the Governors of the Imperial Mineral Resources Bureau, and is Chairman of the Tin and Tungsten Research Board which has been formed under the ægis of the Privy Council Committee for Scientific and Industrial Research.

## BARON PIRRIE (WILLIAM JAMES PIRRIE), K.P., P.C., LL.D., D.Sc., 24 Belgrave Square, London, S.W. 1

The years 1917 and 1918 were, from both the military and naval points of view, the most critical of the Great War. On the 1st of February of the former year unrestricted submarine warfare was declared by Germany, and this, in con-

junction with the withdrawal of men from the shipbuilding yards, placed a double burden on those responsible for minimising the disastrous results on the one hand, and for augmenting the output of ships on the other. A vivid light is cast on the former aspect of the problem by the fact that the losses of merchant vessels during the month of April 1917 amounted to 555,056 gross tons, and on the latter by the shrunken output of new tonnage in the same month, which was represented by only 69,711 gross tons. The crisis was, therefore, serious and urgent. In May 1917 the Department of the Deputy Controller for Auxiliary Shipbuilding was formed. Prior to May 1917 the responsibility of coping with the two evils referred to was divided between the Admiralty and the Shipping



The fabricated ship *Nasmyth* in Belfast Lough.

Controller. It was recognised, however, at this date that satisfactory results could only be attained by the problems being dealt with as a whole, and accordingly the sole responsibility was relegated to the Admiralty. The old office of Admiralty Controller was revived, and the functions of this office combined the shipbuilding requirements of the Admiralty, War Office, and Ministry of Shipping. In March 1918 it was felt that greater use should be made of the marked organising ability and wide experience of Lord Pirrie, in order that the forces operating in the shipbuilding and allied industries should be welded more closely together. He was therefore appointed Controller-General of Merchant Shipbuilding, and assumed responsibility for the output of merchant tonnage, being directly responsible to the First Lord, and, where the interests of merchant shipbuilding were involved, he had direct access to the Prime Minister and the War Cabinet. As indicative of the success resulting from Lord Pirrie's energy in co-ordinating the various interests, the figures representing the output of merchant tonnage from January to November 1918 are given: January, 58,568 tons; February, 100,038;

March, 161,674; April, 111,533; May, 197,274; June, 134,159; July, 141,948; August, 124,675; September, 144,772; October, 136,100; November, 105,093. These excellent results were achieved by methods of reorganisation. To each of the merchant yards was allocated the type of vessel to which it was best adapted, and improvements made in the synchronisation of hulls and machinery. The progress of each branch of work was closely watched, and the work was so arranged as to be ready at the same time. Moreover, the policy was decided on to limit the number of types constructed to about a dozen, and these types came to be known as Standard Ships. The fabricated ship, a type of vessel evolved during the war, carried the principle of standardisation still further. The fabricated ship is one that is built of parts made in bridge-building and constructional engineering works. These are sent to the shipbuilding yard to be assembled. In addition to these requirements, there were special demands to be met for the Navy, such as oil tankers, passenger boats for transport, and meat boats, which employed from 30 to 50 per cent. more labour than the ordinary type of cargo vessel. The increasing activities of the submarine also greatly augmented repair work, and during 1918 close on 25 million gross tons of damaged shipping were passed through the yards.

The whole of this vast work came under the control and supervision of the Controller-General, whose difficulties were enhanced by the continual drain on labour from the yards. During the first ten months of 1918 no less than 14,844 men were released from the Army and 1020 from the Navy and Royal Air Force, and 4559 unskilled men were enlisted as War Work Volunteers for work in the shipyards. These figures alone indicate very clearly the disabilities under which shipbuilding was being carried on.

As a means of increasing the shipping facilities the construction of reinforced concrete barges of 1000 tons dead weight and tugs was commenced. The advantages of this type of boat were the saving of steel, the small amount of plant required, the larger employment of unskilled labour, and the simplicity of construction. As a valuable adjunct to inciting the men to renewed activity a Department of Information was created in March 1918. This Department disseminated information among shipyard workers, emphasising the great need for increasing merchant tonnage. A weekly bulletin was also issued, and had a large circulation throughout the yards of the country. The varied and unabated efforts and ingenuity of Lord Pirrie during the period of his services as Controller-General of Shipbuilding effectually relieved the tension brought about by the exigencies of modern warfare.

## ERNEST PLATT

Mr Ernest Platt left Windsor in January 1915, and joined the 3rd Battalion Coldstream Guards as 2nd Lieutenant, at Bethune. He fought through the actions at this place, and in those of Neuve-Chapelle and Loos. He received promotion to 1st Lieutenant at the latter place. In November 1915 he was appointed Claims Officer to the Guards Division, which position he retained till March 1918, when he was invalided home.

## SIR WILLIAM PLENDER, G.B.E., J.P., 51 Kensington Court, S.W. 8

Is senior partner in Deloitte, Plender, Griffiths & Company, Chartered Accountants, whose branches extend to the United States, Canada, South Africa, Argentina, Brazil, Mexico, and Cuba. He was knighted in 1911, created a G.B.E. in 1918 in recognition of services rendered by him in connection with the war, is a J.P. for Kent, and a Knight of Grace of the Order of St John of Jerusalem in England. He was President of the Institute of Chartered Accountants in England and Wales in 1910–1912, and for some years has acted as Chairman of the Parliamentary and Law Committee of that institution. Sir William has served on various Royal Commissions and Departmental Committees, is a Welsh Church Commissioner (unpaid), Hon. Financial Adviser to the Board of Trade, and has advised Departments of the Government on many questions. Soon after war broke out the Government took over the control of all enemy banks in London, and Sir William was appointed by the Treasury as Controller of all German, Austrian, and Turkish banking establishments. In 1915 the Metropolitan Munitions Committee was formed for the purpose of organising the productive capacity of the numerous factories round London for the manufacture of shells, fuses, etc. Sir William was appointed to this Committee as Government representative, and until 1918 assisted in carrying out work which was at that time of vital importance to the country.

It was in the direction of finance and accountancy that Sir William's wide experience found its most valuable service, and in 1916 he was asked to occupy the onerous and responsible position of Chairman of the City of London War Savings Association, and in 1918 became Chairman of the Civil Liabilities (Demobilisation) Committee, as well as of Panel A on the Military Service (Civil Liabilities) Committee. In addition to this important work he assumed the Panel

Chairmanship of the Ministry of Labour Grants Committee, and also became a member of the following Committees : Liquor Trade Finance (England and Wales, 1915–1917), Foreign Trade Debts, Enemy Debts, Surplus Government Property Disposal Board, Company Law Amendment, and the Lord Chancellor's Inquiry into the organisation of the Public Trustee Office. In 1918 he was nominated by the Master of Rolls as a Director of the Army Trustee.

It was natural that Sir William's status and reputation should cause many claims to be made upon him for patriotic purposes, and to these he responded as far as his many arduous duties would permit. Among other interests he acted as Hon. Treasurer and Member of the Executive Committee of the Endsleigh Palace Hospital for officers. At the same time he is a Governor of St Thomas's Hospital, and of the Poplar Hospital for accidents.

## LIEUT.-COLONEL NATHAN RAW, C.M.G., M.D., M.R.C.P., F.R.C.S., D.P.H., M.P., 58 Harley Street, London, W. 1

Mr Nathan Raw was engaged in practice as a consulting physician in Liverpool for many years. On the formation of the Territorial Force he was appointed Lieut.-Colonel and officer commanding the 1st Western General Hospital for the West Lancashire Division, which position he held for five years. This scheme was organised by Mr Raw. On the outbreak of war he took up military duties, and in March 1915 went out to France as Senior Physician to the Liverpool Merchants' Hospital, and later was appointed commanding officer to this important unit. Over 4000 officers and 20,000 men passed through the hospital whilst on active service at the Front, Mr Raw remaining in France until January 1919, having completed four years of service there.

For his services he was awarded the C.M.G. and mentioned in despatches. After the Armistice, he was invited to contest a Liverpool Parliamentary election, and was returned as a Coalition Unionist member for the Wavertree Division.

On election to Parliament he relinquished his practice in Liverpool and removed to London to resume his practice as a physician in Harley Street. During the war he made many contributions on medical problems associated with military conditions and operations in the field.

In Parliament he has devoted his energies to the care and treatment of ex-service men, especially with regard to pensions and tuberculosis. He is a member of the International Committee for the Prevention of Tuberculosis.

## DAME THE RIGHT HON. THE COUNTESS OF READING, G.B.E., 32 Curzon Street, Mayfair, W. 1

THE position in which the wives of soldiers found themselves when so many thousands of men were called up was the problem which the country had to face when war broke out, and among the most active workers in the solution of this was the Countess of Reading, who immediately started a work-room to enable these women to earn a livelihood. So energetically was the work taken up under the Countess's direction that no less than 50,000 garments were cut out at 32 Curzon Street and distributed among the women to make up in their own homes. This enabled them to carry on their household duties and, at the same time, add to their means. These garments were ultimately distributed among the soldiers in all the different theatres of war. Another section of work to which the Countess of Reading devoted herself was in connection with the Red Cross Prisoners of War Fund, with which, at the Gift House in St James's Street, Piccadilly, the late Mr James Joicey and Lady Price were also associated. This house was opened by the Countess, and a large number of sales were held there for the benefit of the Red Cross, a considerable amount of money thus being realised. When Lord Reading went to America as British Ambassador, he was accompanied by the Countess, who devoted her time, both politically and socially, to promoting a friendly feeling between the two countries. In appreciation of this part of her work she was presented with the G.B.E. The Countess also took an active interest in St Dunstan's Hostel and many other charities, organising the Middle Temple Fête for the British Red Cross. This fête was instrumental in raising a large sum of money, and was attended by the whole Royal Family.

## COLONEL JOHN RITCHIE, Parkside, Mossley Hill, Liverpool

COLONEL JOHN RITCHIE has been prominent throughout the war for his magnificent work in the Liverpool district on behalf of the fighting men and their dependents. Among his many efforts on their behalf mention must be made of the Liverpool Prisoners of War Help Committee, which was founded in 1915 to co-ordinate and centralise the work being carried on by various societies and funds having the same object in view, but whose efforts, through lack of centralised control, overlapped. Thanks to the ready co-operation of those responsible for

these various funds, Colonel John Ritchie was enabled to initiate successfully the War Help Committee, and under his guidance it carried on its valuable work during the whole war period. A register of all prisoners was kept, and parcels of food and comforts were sent to them regularly from the funds subscribed. When the Central Prisoners of War Committee was subsequently organised, with headquarters in London, the Liverpool Committee worked in conjunction with it, and raised a sum of £100,000 for the benefit of men serving in the Liverpool contingents. After the Armistice, Colonel Ritchie (then Lord Mayor of Liverpool) instituted a bureau (which is still in existence) for the purpose of registering returning prisoners and assisting those in need by money grants to help them over their immediate difficulties. Colonel Ritchie was also closely associated with the Roll of Honour Fund (founded by Alderman A. S. Mather, Lord Mayor of Liverpool in 1915) for the care of the widows and orphans and dependents of those who had fallen in the war. A sum of £83,000 was raised for this purpose, and was distributed by the administrators of the fund among some 13,000 widows and orphans in distress. During his tenure of office as Lord Mayor of Liverpool (1918–1919), Colonel John Ritchie inaugurated the Silver Badge Fund to assist necessitous cases among Liverpool sailors and soldiers and airmen, including officers, who had served during the war. A sum of £20,000 was raised for this purpose, and is being utilised in various ways, among others in starting men in business, purchasing necessary tools and equipment for their civil occupations, finding situations, and providing grants for maintenance pending the granting of pensions.

THE HON. ARTHUR ROBINSON, Attorney-General of the State of Victoria and Member of the Legislative Council, Cliveden Mansions, East Melbourne

HAVING been rejected for service with the A.I.F., the Hon. Arthur Robinson immediately sought other means of rendering war services to the Empire. He threw himself vigorously into recruiting work for the A.I.F., organising and speaking at numerous meetings throughout the State of Victoria, and materially assisted in obtaining the splendid results achieved. He also became Joint Hon. Treasurer of the Australian Red Cross Society, and was a member of the Council of the Victorian Division of the Australian Red Cross. He founded the Soldiers' Legal Advice Bureau in Melbourne, which provided all legal advice

and assistance to soldiers prior to their departure to the Front, entirely free of cost either to themselves or to the State. Wills, powers of attorney, and all necessary legal documents were prepared in the office of the firm, Arthur Robinson & Co., and over one hundred and fifty solicitors in Melbourne alone gave their services voluntarily to the work, in addition to large numbers in the various country towns. As the Bureau developed, the wives and female dependents of many thousands of soldiers came to regard the firm of Arthur Robinson & Co. as their friend and adviser, and the various legal requirements in connection with deferring pay, protection against increased rents, collection of monies due, and the many other difficulties incidental to the absence of the breadwinner, were dealt with free of charge. The scantiness of official information concerning sick and wounded soldiers serving overseas became accentuated as the fighting grew more intense. Accordingly, the Hon. Arthur Robinson took an active part in founding an Information Bureau for the purpose of supplying relatives of sick, wounded, or deceased soldiers with the fullest and latest particulars concerning them. In conjunction with the British Red Cross Society, a band of assistants was enrolled for this purpose, and collected the information on the battlefields and in the hospitals, and transmitted it to the Bureau in Australia. Mr Robinson was the first Hon. Treasurer of this Bureau, which was maintained entirely by subscriptions from the legal profession in Victoria.

### SIR THOMAS ROYDEN, Bart., M.P., Deputy Chairman of Cunard Steamship Company, 34 Dover Street, London, W. 1

The outbreak of war, and the necessity of providing shipping for the troops, munitions, and foodstuffs, placed an unexpected burden on the shipowners of this country. The diversion of vessels from their normal avocations introduced a problem with which they had not been faced for twenty years. Between these periods overseas trade had, however, vastly increased, thus making the difficulties of co-ordinating shipping considerably greater. It was not anticipated, however, when war broke out that the First Expeditionary Force would be supplemented to so enormous an extent as it ultimately was. The shipping problem thus became one of the most complicated and vital of the war. To enable them to meet the urgent requirements resulting from these abnormal conditions the Government were compelled to call to their assistance the most experienced men in the shipping world, and an Advisory Committee to the Director of Transport

was formed early in 1915. In March of this year Sir Thomas Royden joined the Committee, of which Mr R. B. Holt, M.P., and Sir Ernest Glover were the other members. Some time later Sir Thomas was appointed Chairman of the Mediterranean Transport Commission, and in this capacity, and for the purpose of organising transport arrangements in connection with the military operations at Salonika, Gallipoli, and Egypt, he visited Salonika, Mudros, Alexandria, and Malta in November and December 1915. In 1916 Sir Thomas was appointed a member of the Curzon Shipping Control Committee. Of this Committee Earl Curzon was Chairman, and Lord Faringdon and Sir Frederick Lewis, Bart., were the other members. The Committee was appointed by the Cabinet with full executive control of the mercantile marine.

In June 1916 Sir Thomas Royden was entrusted by the Cabinet with the responsible task of inspecting and reporting on the transport arrangements in operation at the base ports in France. This report revealed the necessity of introducing certain important modifications in organisation, and Sir Eric Geddes took over control of docks, railways, and roads in that country.

As the war progressed, and the shipping conditions became more acute, due to the intensive submarine warfare, it was essential that some agreement should be arrived at between this country and the United States, and Sir Thomas Royden was attached to the British Mission despatched to that country in 1917 as representing the shipping interests. He remained in America engaged in this work until the close of the year, when he returned to England. As representative of the Shipping Controller he again visited the States, accompanied by the Director of Transport, and remained there until July. During this period the bulk of the American Army was transported to Europe. Sir Thomas was also appointed a member of the Royal Commission on Wheat Supplies.

When the Armistice was granted and the Peace Conference was initiated Sir Thomas Royden was selected to represent the Shipping Controller in Paris. He was also elected a member of the Supreme Economic Council. He was High Sheriff of Cheshire for the year 1917–1918.

KENNERLEY RUMFORD, Compton Lodge, Harley Road, S. Hampstead

IMMEDIATELY on the outbreak of the war Mr Kennerley Rumford "joined up," and at the beginning of November 1914 he proceeded to France. He served on the Staff of General Sir Arthur Sloggett, who was Director-in-Chief of the R.A.M.C., at General Headquarters. After a short period there Mr Kennerley Rumford

was given charge of an advanced motor ambulance and store depot, and in that capacity made regular journeys to the advanced dressing stations and field ambulances to collect the wounded and convey them to the various casualty clearing stations and hospitals. The splendid work of these motor ambulance convoys, carried out as it was frequently under fire, and along shell-swept roads over which progress was often dead slow in order to prevent the jolting of the seriously wounded, received high praise from the authorities, and was specially mentioned, among others, by Sir Cuthbert Wallace, whose work as Surgeon-in-Chief is dealt with elsewhere in this volume. Mr Kennerley Rumford was twice mentioned in despatches for his devotion to duty, and was promoted Captain in 1916. He continued to serve in France until 1917, when he was recalled to England to take over important duties with the Special Intelligence Department at the War Office, and he retained this position until the cessation of hostilities. Whilst serving in France he also used his great gifts as a singer for the benefit of the troops, organising and singing at many concerts at the various base hospitals and depots, and to the troops coming from and going into the front line.

## COLONEL H.H. RAJA SIR SAJJAN SINGH, BAHADUR, K.C.S.I.,
Raja of Ratlam

No sooner had war been declared in 1914 than Sir Sajjan Singh, Bahadur, became prominent among Indian rulers by the whole-hearted manner in which he offered not only his own personal services but the whole resources of his State in support of the British Empire. Leaving Ratlam on the 31st August for Bombay *en route* to the Front, he had the misfortune to contract appendicitis when just about to embark, and was compelled to remain in India until April 1915.

Long after the Indian Expeditionary Force in France had been withdrawn, Sir Sajjan remained with an Indian cavalry corps, not leaving France until the end of May 1918, when this corps was ordered to Palestine. His long and uninterrupted service in France, three years and two months, constituted a record among the ruling princes. On his departure for Palestine the British Government placed H.M.S. *Liverpool* at his disposal for the Mediterranean crossing, when he was accompanied by General Sir Pertab Singh. Embarking at Taranto on the 14th April, he reached Port Said three days later. After further service on this new front, he obtained six months' leave in order to visit his capital, and it was before this period expired that the Armistice was signed.

When he joined the Indian Expeditionary Force in France in 1915, Sir Sajjan held the rank of Major. In 1916, "in recognition of his very valuable services," he was promoted to the rank of Lieutenant-Colonel, which rank he held until 1918, when he was gazetted Colonel. In addition to being mentioned in despatches by Sir Douglas Haig for "gallant and distinguished conduct in the field," his services were recognised by the King, the following extract being made from the Viceroy's communication to him after the Treaty of Peace had been signed at Versailles: "On behalf of His Majesty the King-Emperor and myself, I thank your Highness most warmly for the staunch support and substantial aid rendered by the Ratlam State during the period of the war. Your Highness personally proceeded on active service to France, where you served with much distinction from April 1915 to May 1918. Your Highness materially assisted with generous donations to various funds for the relief of those who have suffered in the war, joined the scheme for the hospital ship *Loyalty*, and equipped and maintained a war hospital at Indore. Your Highness has thus manifested the depth of your steadfast loyalty and devotion to His Imperial Majesty the King and the British Empire, and has shared in the great struggle for justice and freedom in which India has so nobly borne her part."

## THE RIGHT HON. THE MARQUESS OF SALISBURY, G.C.V.O., 21 Arlington Road, S.W. 1

On the day of mobilisation in 1914 Lord Salisbury took command of a battalion of the Extra Special Reserve, the 4th Bedford Regiment, which command he retained until January 1915, when he was promoted to the command of the 2nd South Midland Territorial Division, with the temporary rank of Brigadier-General. This division, which subsequently became known as the 61st Division, he commanded until December 1915, when he was succeeded by another officer.

In the spring of 1915, at Lord Kitchener's request, Lord Salisbury became Chairman of the War Office Committee, the Advisory Committee to the Chaplain-General of the Forces, whose business it was to assist the Chaplain-General and the Secretary of State with advice in the administration and development of the Church of England branch of the Chaplain's Department. Lord Salisbury still holds this appointment.

In the spring of 1916 he joined the Central Tribunal, which was the final court of appeal in the administration of the Military Service Act, shortly after-

wards becoming Chairman. In the course of the next few months, when the question of dealing with the conscientious objector became a burning issue, the Central Tribunal undertook, in addition to their appeal jurisdiction, the revision of all sentences of imprisonment passed on conscientious objectors, with a view to allowing the cases which appeared genuine to be transferred from prison to work of national importance under the Home Office scheme in Dartmoor.

In 1918, when Lord Salisbury's work on the Central Tribunal was practically concluded, he was transferred to the Advisory Committee for the Disposal of Surplus Government Stores, on which body he acted as Chairman for several months.

## AIR VICE-MARSHAL SIR JOHN MAITLAND SALMOND, K.C.B., C.M.G., C.V.O., D.S.O., Army and Navy Club, 36 Pall Mall, S.W. 1

DURING the South African War, 1901–1902, Lieut. J. M. Salmond took part in the operations in the Transvaal in June 1901 and from February to 31st May 1902, and was awarded the Queen's Medal with three clasps. He was also employed with the West African Frontier Force from November 1903 to 1905. He was promoted to Lieutenant on 5th April 1904, and Captain on 26th June 1910. His career in aviation commenced on 13th August 1912, when he was granted the Royal Aero Club certificate, passing his test flight on a No. 7 Grahame-White biplane at Hendon. Having joined the Royal Flying Corps on 12th November 1912, Captain Salmond was appointed an instructor (graded Flight Commander) at the Central Flying School, Upavon. On 13th December 1913 he created a British aviation record for altitude (aviator alone) by climbing to a height of 13,140 feet in a B.E. biplane with 70-h.p. Renault engine. He continued to act as an instructor until 30th April 1914. The first day of the following month, Captain Salmond was appointed a Squadron Commander, and granted the temporary rank of Major, to command No. 7 Squadron, which was then forming at Farnborough.

On the outbreak of war Bt. Major J. M. Salmond commanded No. 3, one of the original four squadrons of the Royal Flying Corps which accompanied the Expeditionary Force to France. In the 4th Supplement to the *London Gazette*, dated 16th February 1915, it was announced that Captain and Bt. Major J. M. Salmond was appointed to be a Companion of the Distinguished Service Order for services connected with operations in the field. After a considerable period of

active service, on 13th April 1915 Bt. Major J. M. Salmond was gazetted to the temporary rank of Lieut.-Colonel Wing Commander. Ten days later he took command of the Administrative Wing, Royal Flying Corps, S. Farnborough, *vice* Lieut.-Colonel E. B. Ashmore.

Lieut.-Colonel J. M. Salmond subsequently returned to France, and on 19th August 1915 took command of the 2nd Wing, Royal Flying Corps, B.E.F., France, obtaining his majority on 8th January. On the first day of the following month he was promoted to the temporary rank of Brigadier-General, and took over the organisation of the Training Brigade, Royal Flying Corps, Home Establishment. While in charge of the training of the Royal Flying Corps he entirely reorganised the system.

He was promoted to the temporary rank of Major-General on 22nd June 1917, and four months later was appointed Director-General of Military Aeronautics at the War Office, becoming a member of the Army Council, at the age of thirty-six.

When Major-General H. M. Trenchard relinquished command of the Royal Flying Corps, British Armies in France, on 17th January 1918, Bt. Colonel (temporary Major-General) J. M. Salmond was appointed to succeed him. He commanded the Royal Air Force in France from that date to the Armistice, and subsequently with the Army of Occupation on the Rhine. On 1st August 1919 he was granted a permanent commission in the R.A.F. as Major-General.

His distinguished services were rewarded by the honour of C.M.G. conferred in 1917, and K.C.B. in 1919, and on five occasions he was mentioned in despatches. The following foreign Orders were also conferred upon him :—Legion of Honour, Officer (France) ; Crown, Commander (Italy) ; Leopold, Commander (Belgium) ; White Eagle (Russia) ; Distinguished Service Medal (U.S.A.).

Air Vice-Marshal Sir John Maitland Salmond commanded the Royal Air Force Detachment in the Victory March through London, and now holds the position of Air Officer Commanding the Inland Area ; he is also a member of the Royal Air Force Officers Selection Board.

## MAJOR S. HECKSTALL SMITH, F.R.Ae.S., Messrs The Nieuport and General Aircraft Co., Ltd., Cricklewood, London, N.W.

AFTER serving his apprenticeship with Messrs J. S. White & Co. of Cowes he directed his attention to yacht designing and motor-boat racing. The introduction of the motor car then attracted his energies, until the speedier method of

travel in the form of flying absorbed the whole of his time and engineering skill. In 1912 he was appointed Assistant Superintendent of the Royal Aircraft Factory at Farnborough under Colonel Mervyn O'Gorman, C.B. It was at this factory that so many innovations and improvements were introduced into the machine which was to play so decisive a part in the Great War. The R.A.F. 1 A. engine was designed there, and no less than half a million drawings were distributed among firms to enable them to construct the large number of aeroplanes the Army were urgently in need of. At the outbreak of war the only aeroplanes procurable in any number were of the B.E. type, the F.E. type, and the R.E. 5, and manufacturers who were willing to construct these machines visited the factory with their foremen in order to pass through a course of instruction, thus enabling them to produce the necessary aeroplanes. At this factory also the first machine-gun fired from the air was tested; wireless spotting was initiated on Salisbury Plain, the apparatus being constructed at the Royal Aircraft Factory; the early experiments in air photography were carried out there, as well as the initial practice in bomb dropping and in obtaining a means of bomb sighting. Special attention was also devoted to aeronautical recording instruments, many of which were either designed or standardised or improved at the factory. During the progress of the war the Army Council requested Major Heckstall Smith to raise a Territorial unit from the staff and workers at the Royal Aircraft Factory. In spite of the fact that these men were receiving high pay as civilians, no less than 1800 were enlisted in a fortnight. The corps was trained and drilled after working hours, and in six months was inspected and passed as efficient by the G.O.C. Aldershot Command. Many of the officers and men were transferred to the Royal Flying Corps and the Royal Air Force, in which they attained high positions.

When the policy of Government designing work was relinquished Major Heckstall Smith left the Government service and undertook the management of the Nieuport and General Aircraft Co., Ltd. While engaged in his work at the Front he realised the urgent need of a fast single-seater fighter, and immediately commenced to design a machine of this type. The result of his labours was the construction of the "Nighthawk," which was adopted by the Royal Air Force before the Armistice was declared, and was adopted as the British fighting machine for the 1919–20 programme.

### SIR EDWARD STERN, 4 Carlton House Terrace, London, S.W. 1

After having served for over twenty years in the Yeomanry, Sir Edward had to retire, prior to the war, owing to deafness. In 1914, however, he raised, commanded, and trained the 3rd Battalion Surrey Volunteers, and presented the Chertsey Company of that battalion with their uniform and a fully equipped miniature rifle range. Sir Edward was mainly responsible for the founding and organising of the Chertsey Emergency Association, which did such valuable work for the wives and children of the men away on active service, and was appointed Hon. Treasurer of Princess Christian's Military Hospital at Englefield Green. No war charity ever appealed to Sir Edward for assistance in vain, and among those which benefited largely by his generosity may be mentioned the Prince of Wales' Fund, the Officers' Family Fund, the King's Fund for Disabled Men, and King George's Fund for Sailors. He also gave and endowed a bed at Etaples Hospital, and presented a hut to the Y.M.C.A. and the Y.W.C.A., and an ambulance to the Red Cross Society. In memory of his wife, he gave £5000 in Consols to the Chertsey Nursing Association for the maintenance of a nurse; and subsequently, at a public meeting in 1917, he announced his willingness to pay 2s. 6d. towards every War Savings Certificate of 15s. 6d. taken out in the hall, no matter how many were applied for. As a result of this generous offer, a very large response was forthcoming.

The well-known firm of which Sir Edward is the head was considerably depleted in staff, upwards of thirty-four men taking up war service. The firm also subscribed generously to all the War Loans, and assisted financially in every way possible.

Lady Stern, who, as a result of her strenuous war work, contracted a serious illness and died in April 1918, also rendered extensive and valuable service for the Red Cross, and in assisting wives of men who had gone to the Front.

### SIR JAMES PURVES STEWART, K.C.M.G., C.B., M.D., F.R.C.P., 94 Harley Street, London, W. 1

Sir James Purves Stewart is Senior Physician to the Westminster Hospital, and a specialist in diseases of the nervous system. He served as physician to the Imperial Yeomanry Field Hospital in the South African War from 1900 to 1901;

he was mentioned in despatches, and holds the Queen's Medal with four clasps. He was with the hospital when it was captured by De Wet at Roodevaal in May 1900.

At the outbreak of the European War Sir James was a medical officer on the staff of the 4th London General Hospital, with the rank of Captain. He at once applied for foreign service, but at first unsuccessfully. In June 1917, however, he was sent by the War Office as Consulting Physician to H.M. Forces in the Mediterranean, with the rank of Colonel. For about eight months he was actively engaged in Malta, which was at that time a great hospital base, where the sick and wounded were received from Gallipoli in large numbers. Lord Methuen, Governor of Malta, had transformed the island into one huge hospital camp, with strenuous work for hundreds of physicians and surgeons.

In September 1915 he went to Gallipoli in order to study the local conditions at Helles, Anzac, and Suvla, and made an important report to the War Office on the medical conditions of the troops.

After the withdrawal of our troops from Gallipoli in December 1915, Malta as a hospital centre naturally became of less importance. Meanwhile the Salonika campaign had begun, and in March 1916 Colonel Purves Stewart was transferred to that theatre of war as the Consulting Physician to the force there. In this capacity he served till December 1917. In May 1916 he was gazetted C.B.

The climate of Macedonia was extremely bad, and in the summer a large proportion of the troops was struck down by malaria of a specially malignant form. Dysentery and other tropical diseases were also rampant. In winter the difficulties encountered were of a different character, intense frost and snow hampering military activities. It is obvious, therefore, that medical work was carried out under very adverse conditions, especially in the Vardar and Struma valleys, where our troops were in unceasing contact with the enemy. The international character of the allied force, consisting as it did of French, British, Serbs, Italians, Russians, Albanians, and ultimately Greeks, gave wide and ample opportunities of studying and comparing methods of medical organisation in various armies. British medical arrangements were splendidly organised, first by Surgeon-General Sir Hayward Whitehead, K.C.B., and following him by Sir Percy Holt, K.C.M.G., with the result that a number of successful measures were carried out, resulting in a marked reduction in the incidence and mortality of malaria and other local diseases.

In 1917 Colonel Purves Stewart was awarded the Serbian decoration of the Order of St Sava. During the summer of this year he visited the monastic republic on the peninsula of Athos, situated midway between Salonika and the

Dardanelles, where no female, human or otherwise, is allowed to set foot. Numerous ancient monasteries still exist, peopled by monks imbued with ideas and customs of mediæval times. He returned from Salonika to England in December 1917, and in January 1918 was gazetted K.C.M.G. for services in the field. Shortly afterwards he was appointed Knight of Grace of the Order of St John of Jerusalem. In February 1918 he was transferred to Egypt, and was posted in Cairo. Here the work proved so insufficient to occupy his time that he applied to return to England, and in May 1918 resumed civilian work in London, being appointed Hon. Colonel in the Army.

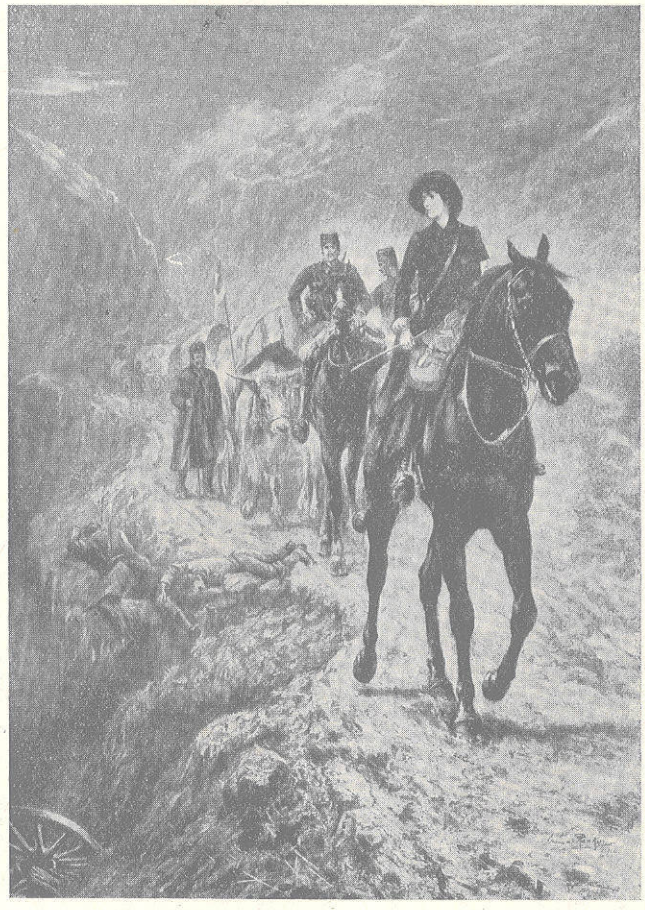
Although his term of foreign service was occupied by general military medicine, he found time to make numerous observations upon his own special subject of nervous diseases. These were incorporated in additional chapters on Organic War Injuries and on War Neuroses in his text-book of *The Diagnosis of Nervous Diseases*, and also in his *Injuries of Nerves*, written in conjunction with his surgical colleague, Captain Arthur Evans, O.B.E. During 1916–1918 Colonel Stewart was mentioned three times in despatches, and again mentioned in August 1919 for services at home in a civilian capacity.

## MRS ST CLAIR STOBART

In the early days of the war, when the German legions were cleaving their sanguinary way through Belgium, Mrs Stobart, who had instituted and accompanied the Women's Convoy Corps for the first Balkan War, 1912–1913, offered the services of a Woman's Unit to the Belgian Red Cross, proceeded to Brussels, and began the improvisation of an hospital in that city. This work was interrupted by the entry of the victorious Germans, and the idea of establishing the hospital had to be relinquished. Obtaining a passport from the German General, Mrs Stobart, accompanied by two friends, set out to return to England *via* Holland. But at Hasselt they were arrested as spies, and were condemned to be shot at Tongres. The reply of the officer, whom they termed the Devil-Major, to their request that their papers should be examined, threw a vivid light on the spirit by which Germany was dominated from the beginning of the war. "You are English," he rasped out, "and whether you are right or wrong, this is a war of annihilation." Eventually, however, Mrs Stobart and her friends escaped by one of those coincidences which are thought to exist only in works

of imagination. On arriving back in England she accepted an invitation to proceed to Antwerp under the auspices of the St John Ambulance Association. After three weeks' work the Germans began a heavy bombardment, and she and her co-workers once more had to relinquish their posts. From here Mrs Stobart went to Cherbourg, where she organised an hospital (Women's Unit), and thence to Serbia, the tragic scene of her most notable work. The party arrived at Salonica on 15th April 1915, and at Kragujevatz, where the camp was established, on the 21st. For six months they remained here caring for wounded Serbian soldiers, with an epidemic of typhus raging around them, and with German aircraft scattering bombs over the town, one of which fell upon the new barracks, and one, on another occasion, in the camp itself. About the middle of July a dispensary was established at Natalintzi, about 35 kilometres from Kragujevatz; while another was opened at Lapovo, a town on the Belgrade-Nish line, one at Rudnik being added on 23rd July; a fifth dispensary was opened at Vitanovatz, a sixth at Rekovatz, and the seventh at Ovcharski. These dispensaries embraced the large area of the Shumadia District, and no less than 20,000 people passed through the hands of Mrs Stobart and her staff. The Germans and the Austrians were, however, massing on the Danube front, and the Bulgars along their own frontier. Arrangements were accordingly made to evacuate these dispensaries should the advance of the enemy necessitate it. The need for this action soon appeared, and Mrs Stobart was asked by the Chief of the Army Medical Service if she, with a portion of the unit, would accompany the Army as a flying field hospital to the front. She was requested also to take command of the column, its material and equipment, as well as of the staff, British and Serbian. The start for the front was made on 1st October 1915, arriving at Nish the same evening; thence on to Pirot, where they awaited news. The marching orders came through in the evening, and the whole column, with Mrs Stobart, on her famous black horse, at its head, left for Stananitza, on the road to Nish. It was at this place that they received the first indications that fighting had already commenced, a number of wounded soldiers arriving from Belgrade, which was taken by the Germans on 9th October. Great Britain had not at this date declared war on Bulgaria, which happened five days later. The column advanced to within 30 miles of the Danube, but made little further progress, as on 17th October began that fateful and tragic retreat which did not end until the Serbians had been despoiled of their country. Palanka was evacuated by the column, with the Germans only 3 kilometres behind. Uskub was captured by the enemy on the 22nd, Kragujevatz on 1st November, Nish on 5th November, the conquest of Serbia being completed by 20th November,

It is impossible to depict in words the horrors and harrowing incidents which occurred in this process of breaking a nation. Mrs Stobart graphically describes these in her book, entitled *The Flaming Sword in Serbia.* The long journey, amid intense cold, over mountainous country, often unrelieved by roadways of any description, was made more terrible by the dangers that threatened



"The Lady of the Black Horse."

on every hand, and by the fear of the Germans, Austrians, Bulgars, and Arnauts or Albanians, who indulged in sporadic and murderous raids upon the convoys for the sake of loot. "From Barchinatz, in the north of Serbia, to Scutari, near the coast of Albania, the sad cortège," consisting of "all the various convoys of an army 200,000 strong, with their innumerable oxen and horse wagons," . . . "was winding its way, like a writhing snake, without beginning and without end, slowly at oxen's pace, along roads which sometimes looked impassable with mud, and holes and broken bridges," thence into Montenegro and Albania, the

column led by "The Lady of the Black Horse." The story so graphically narrated by Mrs Stobart in her book is an epic of modern militarism.

On her return from Serbia Mrs Stobart visited America in October 1917, giving lectures for the Ministry of Information. Leaving that country in May 1918, she went to Ireland on a similar mission.

## FREDERICK W. STOBART, Bromham Hall, Bedford

With that generosity which characterised so many men of position during the momentous years of war, Mr Stobart converted three rooms of his house at Bromham Hall into a hospital. These rooms accommodated twelve beds, with a hospital nurse in charge, and were used as a branch of the Wrest Park Hospital. His more active war work consisted of giving four or five months of his time, from October 1914, without remuneration, to the War Office, and in this position he travelled to Canada and the United States for the purpose of purchasing a large assortment of supplies of a very varied character, ranging from railway sleepers to field-glasses. The total value of these purchases was between one and three-quarters and two million sterling, the whole of the transactions carried out involving a cost of only some £1500. The efficient manner in which Mr Stobart fulfilled his mission was recognised by a letter of thanks from Lord Kitchener, for the very valuable assistance rendered by him and his staff, and expressing, at the same time, "his high appreciation of the patriotic spirit in placing his services at the disposal of the Government." From the time of his return from abroad to the end of the war, Mr Stobart and his wife entertained convalescent Canadian officers at their house in Bedfordshire.

## SIR OSWALD STOLL, Carlton House, Putney Hill, S.W. 15

The name of Sir Oswald Stoll is so closely allied in the public mind with vast theatrical enterprises, that one is apt to look no further for any real indication of the character and interests of the man himself. In that respect, it may be said that his success has brought its own penalty, for, in spite of the fact that he is a philosopher in the wider sense of the term, a keen and clear-sighted student of sociology and economics, and a fluent writer and publicist on those subjects,

it is as the universal provider of high-class entertainment that he will inevitably be remembered. It is therefore only natural that, in any attempt to record the services he rendered his country during the Great War, they should be sought primarily in that direction.

Owing to the unique facilities at his command, he was able to give enjoyment to over a million of the sick and wounded by organising entertainments in his theatres and in hospital centres, and, moreover, raised the large sum of £312,663 for distribution to various war charities and institutions. These activities were more or less known to the public, but his other possibly weightier service to the State was rendered privately but not less successfully as Chairman of a Joint Committee of the Entertainments Industry. This body was formed under the auspices of the Ministry of National Service, to advise on such important questions as the rationing of fuel, light, etc., in their relation to public needs, and war services as affected by entertainments, and, since the war, has developed into the Entertainments Industrial Council, and, through the medium of the Ministry of Labour, is now recognised as the Whitley Council of the entertainments industry. It is, however, in another and totally different direction that Sir Oswald's greatest work lay. It was his desire to establish something in the nature of a permanent memorial and practical token of gratitude to those men who were seriously disabled in the war and no longer fitted to follow their pre-war occupations. With that object in view, Sir Oswald Stoll inaugurated and, by his personal efforts, succeeded in developing the War Seal Foundation. Launched in January 1915, the scheme aimed at raising a sufficient sum to erect self-contained residential flats wherein disabled men could, on their discharge, live with their families in comfort and happiness, and obtain for themselves the medical and surgical treatment which their disablement necessitated, at a total charge within the compass of their limited incomes. In order that everyone, even the poorest, should be able to assist in the erection of this memorial, a War Seal was designed and issued for sale at a face value of one halfpenny, and the public were invited to purchase the seals and use them as a method of securely fastening the flap of envelopes. The seals also served the purpose of advertising the scheme. The total sale of these seals resulted in securing a sum of £120,000. The Foundation was registered under the War Charities Act, 1916, and incorporated under the Companies Acts, and a Governing Council, including Lord Aberconway, the Earl of March, Mrs H. H. Asquith, Sir Jesse Boot, Mr Joseph Bell, and Mr Gordon Selfridge, with Sir Oswald as Chairman, was created for the purpose of carrying the scheme into effect. It should be noted that the entire expenditure on office rent and salaries for propaganda and the secretarial staff has been borne by Sir Oswald, which in

itself represents a personal gift of over £30,000. Moreover, in order to initiate the scheme successfully, he conveyed to the Foundation, by deed of gift, a parcel of land in the Fulham Road, the value of which is over £10,000, and on that ground the first block of flats was built. The building comprises seventy-two self-contained flats and a Treatment and Administrative Section, erected at a total cost of £56,000. It was opened in 1918, and the flats have ever since been occupied by disabled men and their families, a total of 226 persons. There is no endowment fund in connection with the scheme, the charges for maintenance and upkeep being met out of the revenue reserved for rents, thereby eliminating from the minds of the tenants any idea that they are the recipients of charity, and thus preserving their sense of independence. In June 1919 Her Majesty the Queen, accompanied by Princess Mary, visited the tenants and expressed her delight in seeing them so comfortably housed in their own quarters and with their own people around them.

Since then, and in order to cope with the large number of applicants for tenancy, Sir Oswald has abandoned his plans for the building of a theatre on land adjoining War Seal Mansions, and has, instead, handed over the freehold of the site to the War Seal Foundation, whereon it is hoped to erect a further sixty-five flats in the immediate future.

## LORD SYDENHAM OF COMBE, G.C.S.I., G.C.M.G., G.C.I.E., G.B.E., F.R.S., 101 Onslow Square, S.W. 7

Accepting the Chairmanship of the Royal Commission on Venereal Diseases in 1913, which reported in 1915, Lord Sydenham was one of the pioneers of the great national movement which has been designated the "National Council for Combating Venereal Diseases," and of which he was President until April 1920. The Government throughout has lent its support and assistance to the Council, and the good work which it did during the war is recognised as being unique among institutions of its kind. Propaganda was widely distributed in military camps, ships, and barracks, and lectures were organised all over the country. Every possible step was taken to instruct Service men on the subject, and various methods of propaganda have been organised, not only in the large towns, but in many villages throughout the Kingdom. Hospitals have now been enabled to give free treatment, and relief has been afforded to many thousands of patients.

In the early days of the war, Lord Sydenham, who had offered his services, in any capacity, to the War Office, Foreign Office, and India Office without

response, acted as President of the Belgian Field Hospital, an organisation close behind the Belgian lines which was supported entirely by voluntary contributions, and which is recognised as having done valuable work. Later, it was handed over, with the balance of its funds, to the Belgian Government, from whom Lord Sydenham received an expression of warm thanks for the part he had played in its conduct.

When compulsory service was instituted, he was appointed Chairman of the Central Appeal Tribunal, which was the final authority in deciding upon exemptions which had been sent up from the Local Tribunals. For his services in this capacity Lord Sydenham was cordially thanked when he resigned his office in order to devote the whole of his time to the first Air Board, of which he was appointed a member under Lord Curzon. The work on the Board was heavy, and credit is due to the members, who applied themselves whole-heartedly to the important questions referred to them, with useful results. Lord Sydenham was also Chairman of the sub-committee appointed to report on civil aviation in its international and legal aspects, and this report formed the basis of the Act passed after the conclusion of the war.

## MAJOR-GENERAL SIR FREDERICK HUGH SYKES, G.B.E., K.C.B., C.M.G., Air Ministry, Kingsway, London, W.C. 2

He served in Imperial Yeomanry and Commander-in-Chief's Bodyguard in South African War, was severely wounded, and received Queen's Medal with four clasps; 15th Hussars, 1901; West Africa, 1902–1903; attached Intelligence Department, India, 1905–1906; passed Staff College, 1908–1909; General Staff Officer, War Office, 1911–1912; Commander, Royal Flying Corps, Military Wing, 1912, which he raised and commanded until 1914; in European War, 1914–1918, was mentioned in despatches five times; Brevet Lieut.-Colonel, 1915; C.M.G., 1916; Brevet Colonel, 1918; K.C.B., 1919; G.B.E., 1919; General Staff Officer, 1st Grade, France, 1914; Commanding Royal Flying Corps, France, 1914–1915; Colonel (2nd Commandant) Royal Marines, and Wing Captain, Royal Flying Corps (Naval Wing), whilst commanding the Air Services in East Mediterranean, 1915–1916; Assistant Adjutant-General, War Office, 1916; Brigadier-General and Deputy Director of Organisation, War Office, 1917; Brigadier-General General Staff, Supreme War Council, Versailles, 1917–1918; Chief of the Air Staff and Major-General, April 1918; Chief of Air Section at the Peace Conference in November 1918; and Controller-General of Civil Aviation, April 1919.

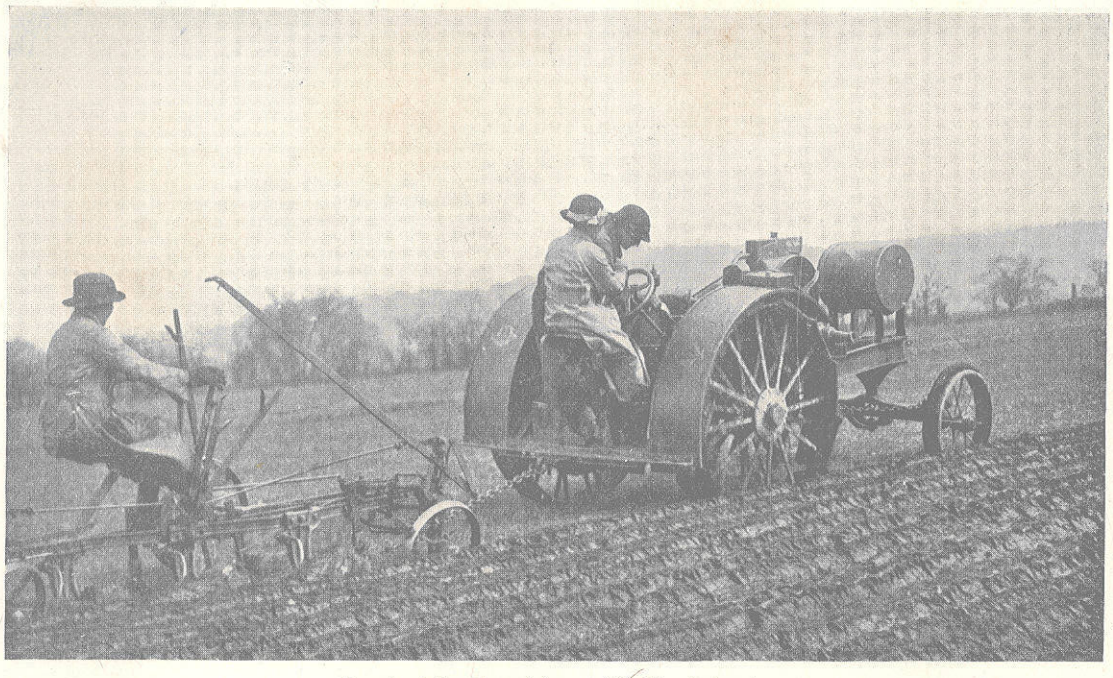
His interest in the air dates from 1903, when he engaged in ballooning, and in 1910–1911 he devoted himself to aviation, studying the subject theoretically and practically, subsequently framing a report on aviation developments in progress at home and abroad. Having assisted to draw up the original organisation of the Royal Flying Corps during the winter of 1911–1912, he was appointed to raise, organise, train, and command the Military Wing on 13th May 1912.

In August 1914 he went to France as Chief Staff Officer of the Royal Flying Corps Squadrons which accompanied the original British Expeditionary Force, remaining there until the summer of 1915. He was then despatched to the Dardanelles in command of the Air Force, both ashore and afloat, operating in that theatre.

In March 1916 he was appointed to the Directorate of Organisation, War Office. In February 1917 he became Brigadier-General and Deputy Director of Organisation, and in November 1917 he joined the staff of the British Section of the Supreme War Council at Versailles. In April 1918 he was granted the rank of Major-General, and appointed Chief of the Air Staff, which post he held until April 1919. In November 1918 he became Chief of the Air Section on the British Delegation to the Peace Conference in Paris; and in April 1919 he was appointed Controller-General of Civil Aviation.

DAME MERIEL TALBOT, D.B.E., The Ministry of Agriculture and Fisheries, 72 Victoria Street, London, S.W. 1

THE very extensive withdrawals of men from various industries brought about a great deficiency in agricultural labourers, and in 1915 the Board of Agriculture made its first appeal for the help of women. In January 1916 Miss Talbot was appointed the first Woman Inspector, to enlarge the scope of the Women's Agricultural Committees in each county and stimulate the supply of women for farm labour. Shortly after the appointment of Mr R. E. Prothero (now Lord Ernle) as Minister of Agriculture, a Women's Branch of the Board was formed, and Miss Talbot appointed Director in January 1917. In March of that year recruits were called for for the newly formed Women's Land Army, a mobile force drawn from all classes in town and country. The women enrolling in this corps did so for a period of six months or a year. They were passed through short courses of training, were provided with a free outfit and railway fares, and received into hostels when out of employment. The work was decentralised and carried out through the



Land girls ploughing with Ford tractor.

Haymaking in war-time.

County Committee officers, who were responsible for the selection, medical examination, and placing of the women, as also for stimulating the local supply of village women for farm work. Although the women of the Land Army were enrolled by the State, they were paid by the farmer.

Miss Meriel Talbot is a member of the Colonial Office Overseas Settlement Committee, and was the first Secretary of the Victoria League, in connection with the work of which she toured through Australia, New Zealand, Canada, and South Africa, giving lectures in the course of her travels.

She received the O.B.E. in 1917, C.B.E. in 1918, and was created a Dame in 1920.

## FRANK TATLOW, C.B.E., Duffield, near Derby

Upon the outbreak of war Mr Tatlow occupied the position of Assistant General Manager of the Midland Railway.

Owing to the temporary indisposition of Sir Guy Granet, the General Manager, he attended the first meeting of the Railway Executive Committee, and as Sir Guy took up important work for the Government which made it impossible for him to continue his duties as General Manager, Mr Tatlow was made Deputy Manager, and on the resignation of Sir Guy was appointed General Manager as from 1st January 1919. Under these circumstances, Mr Tatlow acted on the Railway Executive Committee from its inception, and was a member of several sub-committees which that Committee appointed.

At their locomotive and carriage and wagon shops at Derby, the Midland Company did an immense amount of work for the Government, including the construction of nine ambulance trains, 900 specially constructed railway vehicles, 1500 general service wagons, the renovation of $7\frac{1}{2}$ millions of cartridge cases, the manufacture of $2\frac{1}{2}$ million complete fuses, 1,350,000 fuse adapters and gaines, 1,300,000 copper driving bands, and hundreds of thousands of detail parts for guns, etc.

DAVID THOMSON, O.B.E., M.B., Ch.B., D.P.H., Temp. Capt., R.A.M.C., 26 New Cavendish Street, W. 1

Dr Thomson volunteered for active service in October 1914, and, his services being accepted, he was first posted to the 69th Field Ambulance, then in training at Aldershot. He continued to serve with that unit until July 1915, when he was ordered to proceed to Egypt, with Sir Ronald Ross, as a specialist in tropical diseases. During the subsequent twelve months he carried out important research work in connection with dysentery, from which the white troops in the East were " going down " to a somewhat alarming extent. As a result of his work, in conjunction with Sir Ronald Ross and others, the spread of this disease was successfully checked, and new methods of treatment were introduced and new preventive methods adopted which had a marked effect on the general health of the British troops engaged on that and other Eastern fronts. Dr Thomson, however, as a result of his experiments, contracted dysentery himself, and in July 1916 was invalided home. He failed to be passed again for active service abroad, and was eventually posted for duty as Pathologist to the Military Hospital, Rochester Row. While holding that appointment he carried out important and successful research work on venereal diseases, in connection with which he discovered a new blood test which was universally adopted, and also a method of removing toxins from germs in the preparation of vaccines. Dr Thomson continued to serve until after the Armistice, and for his valuable research work and devotion to duty was awarded the O.B.E.

CAPTAIN JOHN GORDON THOMSON, M.A., M.B., Ch.B., Capt. R.A.M.C.(T.C.), London School of Tropical Medicine, Endsleigh Gardens, Euston Road, N.W. 1

The research work and a vast amount of general routine examinations carried out by Captain Thomson for purposes of diagnosis and treatment of our soldiers suffering from diseases in the Eastern theatre of war were of inestimable value. His research work, begun before the war in the Liverpool School of Tropical Medicine with Sir Ronald Ross, as Beit Memorial Research Fellow at the Royal Society of Medicine, and finally as Protozoologist to the London School of Tropical Medicine, made his services of special value in the Eastern zone of warfare, where a knowledge of tropical diseases was essential.

In February 1915 he was attached to a medical mission sent to Egypt by the War Office to investigate the method of the spread of bilharzia, a disease looked upon as one of the plagues of Egypt, and which might possibly have affected the health of British and European troops stationed in that country. So successful was the result of this mission that the origin of the disease was discovered and the means of preventing its spread elucidated.

In July 1915 Captain Thomson was appointed Bacteriologist in charge of the convalescent camp, Port Said, for the purpose of diagnosing enteric carriers, for preventing their contact in the field with other troops—a matter of great importance in the Eastern field of operations. Inoculation of all troops against enteric, in combination with efficient sanitary measures, however, proved to be so successful that the systematic examination for carriers of the disease was to a large extent abandoned. He was next attached to the staff of the Central Military Laboratory, Alexandria, as Protozoologist, especially to investigate the types of dysentery occurring in Gallipoli and Egypt. At this time he also gave instruction to a large number of officers coming from home to the East in the diagnosis of amœbic dysentery, malaria, etc., and their mode of spread.

Captain Thomson was next appointed to the command of the pathological laboratories at the 17th General Hospital, Egypt, and to the Venereal Hospital, E.E.F. During the vast amount of routine examination carried out in this hospital for about two years, he conducted further research work in dysentery and in blood infections, and two papers were published on these subjects in *The Lancet*.

In 1918 he was appointed officer in command of the Malaria Laboratories in London for War Office research in that subject, and made important pioneer investigations on the serum diagnosis of malaria. The results of these researches were published by Sir Ronald Ross in a War Office publication. After four years' service in the Army Captain Thomson was demobilised, and returned to the London School of Tropical Medicine as Protozoologist to that institution.

## MAJOR-GENERAL SIR HENRY WORTH THORNTON, K.B.E., R.E.,

Liverpool Street Station, London, E.C. 2

GRADUATED B.Sc. from the University of Pennsylvania, 1894; entered the service of the Pennsylvania Lines West of Pittsburg in the same year; Assistant Engineer on the construction of the Cleveland and Marietta Railroad, 1895;

Assistant on the Engineering Corps of the Pittsburg Division of the Pittsburg, Cleveland, Cincinnati, and St Louis Railroad, 1896; Engineer on Maintenance of Way on Erie and Ashtabula Division, 1899; Superintendent of the Marietta Division of the Cleveland and Marietta Railroad, 1901; the Erie and Ashtabula Division, 1902; Assistant Superintendent of the Long Island Railroad, 1911; and advanced to post of General Superintendent in same year. In February 1914 he became General Manager of the Great Eastern Railway of England.

Among the innovations made by Mr Thornton were the appointment of inter-departmental committees to inquire into the constitution and working of each department of the railway and to report on improvements that might be effected; a special committee, formed of experts drawn from various departments of the railway, for re-modelling the time-tables, and the reorganisation of the executive of the railway with a view to breaking down as far as possible what has been described as the "water-tight compartment" system. New arrangements were also introduced whereby all traffic matters were divided between an operating department and a commercial department, the former directing the movement of all traffic, including locomotive running, and the latter being responsible for questions of rates and fares, and those directly relating to traders and the travelling public. In January 1917 Mr Thornton assumed responsibility for the chief civil engineering department under the title of engineer-in-chief, for which his engineering experience on the Pennsylvania system specially qualified him. An Association of the officers of the Great Eastern Railway was also initiated by Mr Thornton. This Association was formed for the purpose of discussing matters relating to the operation and management of the railway, and committees were formed, so arranged as to include in each case representatives of different departments. Problems of general interest were considered from all points of view, and subsequently discussed at full meetings of the Association, with the President (Mr Thornton) in the chair.

The outbreak of war four months after Mr Thornton took office placed additional responsibilities upon him. He was co-opted to the British Railway Executive Committee early in August 1914, and appointed a full member in February 1916. This Committee consisted of the General Managers of the principal British railways, and was entrusted by the Government with the control of these on their behalf. In July 1916 Mr Thornton received a commission as Honorary Lieutenant-Colonel in the Engineer and Railway Staff Corps, and in March 1917 he was appointed Deputy Director of Inland Waterways and Docks, a section of the War Office dealing with the water transport of military

traffic in all theatres of war. Two months later Lieut.-Colonel Thornton received the still more important post of Assistant Director-General of Movements and Railways, carrying with it the temporary rank of Colonel. During 1918 he was appointed Deputy Director-General of Movements and Railways, with the temporary rank of Brigadier-General; whilst in January of the following year he was appointed Inspector-General of Transportation, with the temporary rank of Major-General.

Although engaged in important and strenuous work, General Thornton identified himself prominently with the various social activities of the Great Eastern Railway, while he was also actively connected with most of the American societies in London. Among these he accepted the chairmanship of a committee of representative Americans in London formed before the entry of the United States into the war. This committee engaged in continuous efforts to encourage a friendly feeling in the United States for the Allies and to counteract the pernicious effects of German intrigue and propaganda.

For his valuable services General Thornton was created a Knight Commander of the Order of the British Empire in January 1919; was awarded Cross of Officer Order of Leopold, 1919; and the American Distinguished Service Medal in the same year. In February 1917 he was admitted to membership of the Institution of Civil Engineers.

## T. W. THUBRON, Sedgefield Sawmills, *via* Ferryhill

Mr Thubron's war activities were devoted very extensively to work within his own district. At the same time his wide experience in connection with timber induced the Government to invite him to become a member of Sir James Ball's Home-grown Timber Advisory Committee. In view of the enormous shortage of timber, due to the importations from abroad being curtailed by naval operations and enemy attacks, the work of this Committee was of an extremely responsible and onerous nature. One of the chief duties of this Committee was to develop home sources of supply, and to allocate the quantities obtained in such a manner as to meet the requirements of the various industries. The manner in which this work was carried out undoubtedly reflected very great credit on those whose responsibility it was to meet the claims of military and naval demands as well as those of industry. Mr Thubron, in addition to this important work, acted as Chairman of the Prince of Wales' Fund in the Sedge-

field district, and assisted in raising a considerable amount of money for this purpose. His organising ability was also used to great advantage as Chairman of the Food Control Committee and of the Coal Distribution Committee at Sedgefield, and the local benefits derived from his work in these positions contributed largely to the relief of residents in the district. He was also Chairman of the War Savings Committee, and a member of the Military Tribunal, thus devoting his energies, not only to the conservation of local wealth, but to the upkeep of the armies in the field.

### SIR GEORGE THURSTON, K.B.E., M.I.N.A., M.I.C.E., M.R.S.A., F.N.B.A., F.R.B.S., Vickers House, Broadway, Westminster, London, S.W. 1

Sir George Thurston was throughout the war period the Shipbuilding Director and Chief Constructor of Vickers, Ltd., Managing Director of the Forth Shipbuilding and Engineering Co., Ltd., and the Ferro-Concrete Ship Construction Co., Ltd., whilst he is a Director of the Centropolis Public Works Co., Ltd., George T. Grey & Co., Ltd., the Renshaw Generator Co., Ltd., Riley (Coventry), Ltd., The Salvage & Towage Co., Ltd., Alloy Welding Processes, Ltd., and the Union Electric Welding Co., Ltd.

As Chief Constructor of Vickers, Ltd., he has been responsible for the design and construction of war-vessels, including battleships, cruisers, destroyers, submarines, and troopships, for practically all the navies of the world; and he designed the first British monitors, viz. *Mersey*, *Humber*, and *Severn*, which rendered such a magnificent account of themselves in the war.

Other well-known war-vessels for the design of which Sir George Thurston is responsible are the two British scouts, *Sentinel* and *Skirmisher*; the battle-cruiser *Komgo*, the flagship of the Japanese Navy; the Russian cruiser *Rurik*, the flagship of the Russian Baltic Squadron during the early part of the war, and the first Russian warship to be built in England for over thirty years. He also designed a number of Russian warships which were built at the Russian Naval Yard at Nicolaieff, from which large contracts came to this country; and took part in the design of the Turkish battleship *Reshadieh*, which was taken over by the British Government and re-named H.M.S. *Erin* on the outbreak of the war. He was also responsible for the design of warships of various types for the South American republics, whereby large contracts for many millions of pounds have been brought to this country.

Sir George is a member of the Spanish Advisory Committee, in association with Messrs Sir W. G. Armstrong, Whitworth & Co., Ltd., Messrs John Brown & Co., Ltd., and Messrs Vickers, Ltd., whereby large contracts have been brought to this country from Spain; and his forethought and energy contributed largely to the rapid recovery in mercantile tonnage after the depredations made by the war.

As Managing Director of the Forth Shipbuilding & Engineering Co., Ltd., Sir George made arrangements whereby mercantile ships of over 60,000 dead-weight tons were constructed during the war, and he was responsible for the design of s.s. *Armistice*, the first ferro-concrete sea-going, self-propelled vessel to be built in Great Britain, which, after over a year's continuous service, still gives every satisfaction to builders and owners.

For his very valuable services to the Empire, Sir George Thurston was knighted in 1920.

## THE REV. JAMES GROVE WHITE TUCKEY, C.B.E., M.A., K.H.C.

(Chaplain to the Forces (1st Class), ranking as Colonel), Assistant Chaplain-General, Southern Command, Salisbury

The Rev. J. G. Tuckey joined the Army as an Acting Chaplain in 1895, receiving his permanent commission in January 1897. He served during the South African War, including the defence of Ladysmith, being mentioned in despatches and receiving special promotion. In August 1914, when war broke out, he was Senior Chaplain at Woolwich. On 22nd August 1914 he was appointed Chaplain to No. 4 General Hospital, which mobilised at Woolwich, and two days later accompanied that unit to France. He continued to serve with that unit at Rouen, St Nazaire, Nantes, and Versailles until September, when he was transferred to the 4th Division, then stationed at Sept-Mons on the Aisne, and was shortly afterwards appointed Senior Chaplain to that division. With it he moved to Armentières, and was present at the heavy fighting round Hill 60, Houplines, etc., and ministered to the units of the 4th Division in Flanders and Belgium. In December 1914 he was moved to Bailleul as Senior Chaplain to the 3rd Army Corps, with the supervision of all Church of England chaplains in all units contained in that corps, which work necessitated frequent visits to the trenches in Flanders and Belgium, including Bois Grenier, Ploegsteert Wood, etc. After six months' strenuous service with the 3rd Army Corps, the Rev. J. G. Tuckey was appointed Chaplain to the 2nd Army Headquarters and Senior Chaplain, and stationed at Hazebrouck, the area to which he ministered includ-

ing the city of Ypres. In April of the following year he was transferred to the Rouen area and appointed Assistant Chaplain-General. During his period of service at the Front he had many exciting and interesting experiences. Holy Communion and other services were held under heavy fire in such shelters as could be found, and the "padre" states that he was greatly impressed by the numbers and devotion of officers and men who attended the services under such dangerous conditions. Though nominally a non-combatant, his devotion to duty earned for him the distinction of being three times mentioned in despatches, the award of the C.B.E. (Military Division), and the appointment in 1918 of K.H.C., *i.e.* Honorary Chaplain to the King. His name was also brought to the notice of the Secretary of State for War for valuable services rendered.

## SIR RICHARD V. VASSAR-SMITH, BART., D.L., J.P.,
## 16 St James's Street, S.W. 1

THE more important war services rendered by Sir Richard Vassar-Smith were of such a confidential character, comprising as they do services rendered to the Treasury, the Foreign Office, and the Board of Trade, that it is not possible to enter into great detail in regard thereto. The magnitude and importance of this work can only be fully realised when the official history of the financing of the war is published. It may be stated, however, that in all the complex and intricate problems associated with international finance the Government sought the advice and assistance of Sir Richard, in conjunction with other leading bankers and financial experts, and that this co-operation was of very material use in the stupendous task of financing the Great War, and in the safeguarding of this country's credit during a period of unparalleled strain.

In addition to the heavy demands upon his time in these directions, Sir Richard served as a member of the Committee on Women's Employment after the War, was Chairman of the Financial Facilities after the War Committee, and also a member of the Financial Risks after the War Committee, as well as of the Royal Commission on Decimal Coinage. Believing also that there must be considerable expansion of our export trade to enable us to make good the financial losses caused by the war, Sir Richard subsequently evinced a great interest in the whole question of foreign banking, with a view to gaining the necessary facilities for the rapid development and expansion of our foreign trade generally, and there are already indications that his work in this direction will be followed by important and valuable results.

## MAJOR-GENERAL SIR STANLEY BRENTON VON DONOP, K.C.B., K.C.M.G., 32A Cheniston Gardens, Kensington, London, W. 8

MAJOR-GENERAL VON DONOP was first commissioned in the Royal Artillery in 1880. After successively holding the appointments of Professor of Artillery at the Royal Military Academy, Superintendent of Experiments, Shoeburyness, Secretary of the Ordnance Committee, and Chief Instructor at the School of Gunnery, he was, in February 1911, appointed Director of Artillery at the War Office, and in February 1913 succeeded to the post of Master-General of the Ordnance and member of the Army Council. In this capacity he was responsible for the design, production, and supply of all guns, small arms, ammunition, and every type of weapon required for the Army, as well as for the building and maintenance of all forts, barracks, and other engineer services.

With the outbreak of war came an unprecedented demand for munitions, and the gigantic task of meeting it called for the utmost energy and resource on the part of General von Donop and his staff. With the original Expeditionary Force there were 384 guns and less than 200 machine guns. By the spring of 1915 orders had been placed for over 7000 guns and 27,000 machine guns, of which by May 1916 over 4000 guns were actually in the field and some 16,000 machine guns had been delivered. The supply of the ammunition required presented great difficulties. It was very soon found by all armies that the scale of expenditure of ammunition considered before the war by those competent to judge, was much below the actual demand. Whereas the nations possessing huge Continental armies had merely to meet the requirements of the larger scale by an extra number of rounds per gun, the Master-General had, in addition to this increase of scale, to provide for the increase of divisions by a multiple of ten or twelve. It was also apparent that the preparations in peace-time had proved to be insufficient, since the comparatively small sums provided annually by Parliament for munitions did not encourage the principal armament firms in the country to maintain plant that would be unproductive except in a period of war. Every possible effort was made by General von Donop and his staff to cope with the difficulties which arose; but, despite the placings of orders with all those manufacturers in England capable of producing munitions, as well as with Canadian and American firms, great anxiety was caused owing to the serious shortage of ammunition, which, in the latter part of 1914, became acute. Lack of labour, machinery, and of building materials, delays in the transport of essential commodities, and trade-union restrictions were primarily responsible for the grave situation which

arose. In his capacity as Master-General of the Ordnance, General von Donop, in the face of all these difficulties, left no stone unturned to secure the utmost possible output. The pre-war average output of gun ammunition per month was about 3000 rounds; in January 1915 this figure had reached 179,000; in July, 700,000; in October, 1,284,000; and in March 1916 no fewer than 1,772,000 rounds were supplied.

On his own initiative, before the war had been a month in progress, General von Donop communicated with General Headquarters in France, suggesting that a proportion of high-explosive shell might be utilised for the field guns; and, despite a previous ruling by technical experts that it would not be necessary, his suggestion met with the approval of those at the Front, and he immediately applied himself to the problem of speeding up production. The greatest difficulty which presented itself was not the production of shell but the necessity of designing and manufacturing a new type of fuse. When designed, the work had necessarily to be put into the hands of firms who were unaccustomed to handling such delicate work; but no sooner did difficulties arise than they were overcome, and the new high-explosive shell was being produced in large quantities all over the country. Previous to his going to the War Office, General von Donop had strongly advocated the use of heavy howitzers in the field. Consequently, when he became Director of Artillery, and later on Master-General, he made every endeavour to transform his views into practice. The preparation and consideration of designs, the manufacture and trials of new types, involved considerable time under peace conditions, and it was not until one month before the war that successful trials with a new type of 9·2-inch B.L. howitzer were completed.

As soon as the troops had taken the field, orders were at once placed by him for some of these howitzers to be constructed, and steps were taken to collect as many as possible of the 6-inch howitzers already in the service, but scattered about at home and abroad. Shortly afterwards further orders were placed for as large a number of heavy howitzers as was thought desirable until such a time as they, being of an untried pattern, had been used in the field and found suitable. Directly, however, Sir John French had reported favourably upon them, a very large increase was put in hand. The provision of rifles was as difficult a task as any encountered. The plant in England was only sufficient at the outbreak of war to work up to 8000 a week, or about 400,000 a year. Orders were given for extension of factories in England, so as to bring the production to over one million a year, while further orders for over two million rifles were placed elsewhere. It is a fact not generally known that the production of rifles by a firm not previously engaged on the particular pattern required, occupies a

longer time than any other weapon or article of equipment with which an army is supplied.

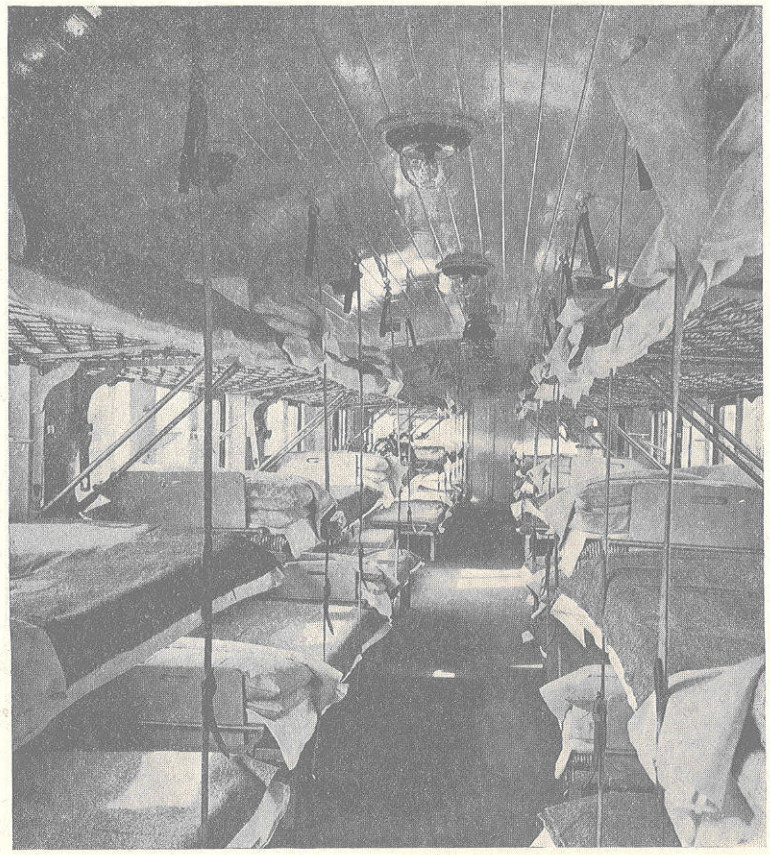
Among the many new designs evolved, adopted, and supplied by the Master-General's department may be mentioned the 12-inch, 9·2-inch, 8-inch, and 6-inch howitzers, together with their carriages, ammunition, and appliances, the field carriages for 6-inch guns, the various types of trench howitzers, hand and rifle grenades, periscopes, steel helmets, body shields, mining apparatus, telephones, wireless appliances, pumps, trench-diggers, and a vast assortment of essential accessories to an army in the field. Major-General von Donop, who was appointed honorary and temporary Major-General in October 1912, was specially promoted to substantive rank in October 1914, and was created K.C.M.G. in December 1916, on completion of over six years' service at the War Office. In February 1917 he was appointed to command the Humber Garrison, which included the defence of a portion of the East Coast and the protection against aircraft of a large area of the Northern and Midlands counties, in addition to the supervision of the training of four strong brigades of recruits. His services were further recognised by the award of the Orders of Commandeur Légion d'Honneur, Commandeur d'Ordre de Leopold (Belgium), and the Order of the Rising Sun, 2nd Class (Japan).

### A. BARCLAY WALKER, St Augustine, East Molesley

On the outbreak of hostilities Mr Barclay Walker turned his attention to the provision of Red Cross requirements, as well as to the establishment of hospitals for wounded men. He presented three motor cars and a number of ambulances for these services, and contributed large sums to the Union Jack Club. He also established four hospitals at Weybridge, which he maintained himself during the whole period. In addition, he organised entertainments for wounded men during the war, included in which were river trips during the summer months. He became Honorary Commandant of the V Division of the Special Constabulary, having under him 3000 men, assisting them in every way in their work. With that knowledge of men which recognises that recreation is essential, and was indeed one of the great necessities under the strenuous and nerve-shattering conditions under which they were fighting, Mr Barclay Walker sent 1000 footballs to Mesopotamia, and 1000 pairs of boxing-gloves to the troops in Salonica.

## SIR HERBERT WALKER, K.C.B., L. & S.W.R., Waterloo, London, S.E. 1

IMMEDIATELY on the opening of hostilities in 1914, the Government decided that it was essential that control should be exercised over the railways, and an Executive Committee comprised of the General Managers of the principal railways was accordingly set up. This Committee, of which Sir Herbert Walker, General Manager of the London and South-Western Railway Company, was the Chairman, was responsible to the Government for the complete control of the railway system throughout the Kingdom.



Ward car in ambulance train constructed by London and South-Western Railway Company at Eastleigh.

Some idea of the vastness of the administrative work may be gathered when it is borne in mind that when war was declared the Bank Holiday traffic, which normally threw a very great demand on the railway capacity of the country, had to be dealt with; the Territorial Army, which was for the most part in various training camps, had to be entrained and transported to the mobilisation depots; and the first Expeditionary Force had to be shipped to France. This latter movement alone entailed the provision of no less than 670 special trains; and 4653 officers, 113,801 men, 37,649 horses, 314 guns, 5221 vehicles, 1807 cycles, and 4557 tons of stores were carried to Southampton for shipment to France. The whole of this undertaking was conducted with absolute secrecy, and so efficient was the organisation that the first intimation the public had of the departure of our Expeditionary Force was the news that they were in action.

As the main traffic artery to the various fronts, the London and South-Western Railway Company was called upon to meet all transport emergencies, and in one day alone, in September 1914, it established a record by providing 100 special trains, in addition to the ordinary service, and carrying 565 officers, 30,627 men, 5626 horses, 72 guns, 701 vehicles, and 502 tons of stores to Southampton alone. From the beginning of the war up to November 1918, this Company supplied a total of 58,859 special trains, conveying 522,768 officers, 19,701,186 men, nearly one and a half million horses, over 11,000 guns, and hundreds of thousands of tons of baggage and stores. Ambulance trains were also provided for the transport of the wounded, of whom over one and a half million were carried.

In the Eastleigh locomotive workshops, in addition to the ordinary requirements, fifty locomotives were overhauled and sent to Mesopotamia, Egypt, and Salonica; and adapters, base-plates, etc., for shells were turned out in very large numbers. Parts were also made for howitzers, and over 20,000 various ships' fittings were supplied. Four complete, fully equipped ambulance trains were built, one of which was to the special order of the United States Government, and, by placing it on exhibition to the public at various South-Western Railway stations, a sum in excess of £1000 was raised for charity.

The Company's passenger and cargo boats were placed unreservedly in the hands of the Government, and, whereas two were lost as a result of enemy attack, it is definitely established that more than one enemy submarine met its fate at the hands of the transport ships.

The amount of organisation necessary to carry out efficiently the widespread activities of the London and South-Western Railway may be gauged from the figures already given; but, as Chairman of the Railway Executive Committee, an even greater demand was made on Sir Herbert Walker's energies and ability. On this Committee devolved the administration of the whole railway system of the country, and, with a staff numbering only twenty-one, not a single transport demand arose which was not instantly met, whilst the vast and complex railway system continued practically uninterruptedly, and the travelling public enjoyed most of the ordinary advantages of peace-time.

## SIR CUTHBERT WALLACE, 26 Upper Wimpole Street, London, W. 1.

Soon after the outbreak of the war, Sir Cuthbert Wallace took charge of the surgical wards of the hospital which the British Red Cross were opening at Netley.

In May 1915 he went to France and was appointed Consulting Surgeon to the First Army, which post he held until the cessation of hostilities. In that capacity he acted as professional adviser on surgical matters to the D.M.S. of the First Army.

Sir Cuthbert strongly advocated the necessity for early operation in all wounds, and above all in the case of abdominal wounds. He was in favour of the transference of surgery from the base to the Front, so much as the exigencies of the Service would permit. He was also greatly interested in the pathology and treatment of gas gangrene, and adopted a view that it was essentially in man a disease of the muscles, in which contention he was supported by the surgeons and pathologists attached to the First Army.

Under the title of *The War Surgery of the Abdomen*, he published his experiences in this particular branch of surgery, with an analytical and statistical record of the cases so treated. This was accepted by the medical profession as a standard work on the subject.

For his services Sir Cuthbert was mentioned three times in despatches and created C.M.G., C.B., and K.C.M.G.; he was also awarded the American Distinguished Service Medal.

## THE RIGHT HON. SIR JOSEPH WARD, Bart.

At the outbreak of the war he was leader of the Liberal Party in New Zealand, and in 1915 he joined forces with the Right Hon. W. F. Massey, leader of the Reform Party, in a National Government, formed for the purpose of carrying on the work that war conditions required and enabling the Dominion to do its part in the Great War more effectively. In this Government Sir Joseph Ward took over the important portfolios of Minister of Finance, Postmaster-General and Minister of Telegraphs, departments which have played a conspicuous part in the splendid record of service rendered by New Zealand during the war period.

The task of the Finance Minister was no light one. In a country with a population of only 1,200,000, though with an area about the same as that of the British Isles, Sir Joseph was called upon to provide funds, not only for the ordinary requirements of the Dominion, but also for a war expenditure of some £1,500,000 a month, and, in addition, to find money for war pensions to the extent of nearly £2,000,000 a year, and for many other purposes connected with the war. Fortunately Sir Joseph had had many years of experience as Minister of Finance, and the conspicuous success with which he administered the finances of the Dominion during the war period is amply demonstrated by reference to the results achieved. Prior to the war New Zealand borrowed its money for public expenditure principally in London, but during Sir Joseph Ward's period of office in the National Government he raised within the Dominion some £50,000,000 sterling at 4½ per cent. at par. During the same period, as Minister of Finance, he was able to invest largely in British war loans, the figures up to 30th September 1918 being £17,869,912. Some idea of the changed conditions he was called upon to meet is evidenced from the fact that the total lodgments to the Public Account in the year 1918 amounted to £66,800,000, as compared with £17,000,000 for the year immediately prior to the beginning of the war. Sir Joseph Ward was a member of the British War Cabinet, and with the Prime Minister of the Dominion visited England and France on three occasions during the war period. The first two visits were for the purpose of attending the Imperial Conferences in 1917 and 1918. In 1919 he attended the Peace Conference in Paris, and was a member of the panel of British Ministers at Versailles which presented the peace proposals to the German delegates, and, again, at Saint-Germain, when the terms and conditions of peace were presented to the representatives of Austria. At the request of the British Government Sir Joseph Ward rendered very valuable assistance in the British War Loan campaign of 1917, delivering addresses at a large number of centres throughout England.

D. MILNE WATSON, The Gas Light and Coke Company, Horseferry Road, S.W. 1.

THE part played by the gas industry during the Great War is perhaps not as well known as it might be, and in this connection it is worth recalling the statement made by Lord Moulton, when Director of Explosives Supply, to the effect that, had it not been for the gas industry, the country would not have been able

to carry on the war for any length of time. The Gas Light and Coke Company, as the largest gas undertaking in the United Kingdom, was naturally very much occupied in supplying Government requirements of all kinds during that period.

Mr Milne Watson became General Manager of the Company in October 1903, a position he held until May 1916, when he was appointed a Director and Managing Director of the Company. In December 1918 he became Governor of the Company, continuing to fill the office of Managing Director. In 1909 he became also a Director of the Brentford Gas Company.

In addition to the work specially connected with these Companies, Mr Watson has been intimately associated with the larger activities of the gas industry. He is President of the National Gas Council, Chairman of the British Sulphate of Ammonia Federation, a Trustee and Vice-President of the British Commercial Gas Association, an honorary member of the Institute of Gas Engineers, Chairman of the London Coke Committee and of the National Benzole Association, a member of the Council of the National Sulphuric Acid Association and of the Association of British Chemical Manufacturers. He is also Chairman of the Federation of Gas Employers and of the Joint Industrial Council, of which Mr Will Thorne, M.P., is Vice-Chairman.

Sulphate of ammonia, which is an important by-product of gas works, was most vital to agriculture during the war, and consequently the question of its supply and distribution was of great importance to the country. Mr Milne Watson, besides acting as Chairman of the Sulphate of Ammonia Association, at the Government's request, served as a member of the Ministry of Food's Committee on the distribution of sulphate of ammonia and of the Ministry of Munitions' Departmental Committee on the post-war position of the sulphuric acid and fertiliser trades.

As Chairman of the London Coal Supply Advisory Committee, whose efforts, despite conflicting interests, did much to secure throughout the war an effective supply and an equitable distribution of coal, Mr Milne Watson received a testimonial from his colleagues on the Committee as a mark of their esteem and appreciation of his successful work.

Although the efforts of the gas industry both to help the Government and to carry on their own particular business and maintain a good supply of gas to the consumers throughout the war were so successful, yet gas undertakings were hit very hard by rises in the cost of raw materials, freights, and labour, and the financial position of many of the companies was imperilled by the old sliding scale under which they were working. So serious had their financial situation

become in the autumn of 1917 that, largely due to the action of the National Gas Council, of which Mr Watson was Chairman of the Executive Committee, the Government passed the Statutory Undertakings (Temporary Increase of Charges) Act, 1918. It became apparent that the good work done by the Gas Council could be extended if it was made more representative, and Mr Watson took the matter in hand. The result was that in 1919 an enlarged Joint National Gas Council of Great Britain and Ireland became an accomplished fact, with its kindred Federation of Gas Employers to deal with all questions where labour is concerned. Mr Milne Watson was unanimously elected first President of this, Chairman of the Central Executive Board, and Chairman of the Federation of Gas Employers.

As Governor of a Company employing between 13,000 and 14,000 men, it was natural that he should be deeply interested in all labour questions. A scheme of co-partnership, based on the price of gas to consumers, had been in vogue since 1909. With the great rise in prices necessitated by the war, this scheme became inoperative; but a new scheme, based on the rate of dividend paid to the Company's ordinary shareholders, was evolved by the Governor, and has since proved highly successful.

Mr Milne Watson is also keenly interested in education, especially in a scheme, in conjunction with the L.C.C., for the training and education of the Gas Light and Coke Company's apprentices. He is also a member of the Advisory Committee of the Imperial College of Science and Technology, and under his auspices a scheme has been evolved for research in connection with the testing of those of the Company's by-products which are likely to have a medicinal value. This scheme is worked in conjunction with the Bland-Sutton Institute of the Middlesex Hospital.

He has also been a member of the Territorial Force Association of the County of London for a number of years, and during the war he acted more especially as Chairman of its Hospital Supplies Committee, which provided and equipped two of the largest hospitals in London.

## LADY WAVERTREE, C.B.E.,

Sussex Lodge, Regent's Park, London, N.W. 1

LADY WAVERTREE, better known as Mrs Hall Walker, wife of Colonel Hall Walker, who was at the beginning of the war a Member of Parliament, and who is now Baron Wavertree of Delamere, was one of the pioneers among the patriotic

ladies of the country who offered their houses for use as naval and military hospitals.

In September 1914 she realised the very great demand which the war would make on existing hospitals, and volunteered to throw open her house in Regent's Park, and act voluntarily as matron and commandant herself. The authorities immediately gave their permission for the hospital to be proceeded with, and a staff of fully trained nurses, masseuses, and a resident surgeon were forthwith installed. Various structural alterations, which were necessary for the new purposes to which her residence was to be put, were carried out at her own expense, and a complete X-ray apparatus was provided for the examination of fractured-limb cases, of which the hospital had a great number. So as to carry out her duties as efficiently as possible, Lady Wavertree studied and became a fully certified nurse, and was consequently able to give personal attention to her patients and staff. During the period from September 1914 to April 1919, over fifteen hundred patients passed through the hospital.

BARON WAVERTREE OF DELAMERE, Sussex Lodge, Regent's Park, N.W. 1

When war broke out, Colonel Hall Walker (born in 1856) was a Member of Parliament, and in those critical times it was inadvisable that open criticism of the Government should be indulged in in the House itself. He therefore, in conjunction with several other prominent Members, assisted in organising several important committees of the House, each of which carried out a considerable amount of valuable work behind the scenes, in collecting and sifting evidence on various delicate matters. Among these committees was the Unionists' Business Committee, the purpose of which was to gather together, exchange views, collect information, and arrive at a decision as to the most advisable steps to be taken. The Prime Minister was then interviewed, and the decisions placed before him for him to act upon if he thought fit. If any delay occurred in putting into effect certain actions which the committee had advised, a resolution was moved in the House. Only on one occasion, however, did this occur. Sir Edward Carson, Mr W. H. Long, and Lord Pollock were at the head of this movement, and were gradually absorbed into the Government. Colonel Hall Walker was also a member of the War Committee of which Sir Edward Carson was chairman. This committee worked on none but the most important subjects, and conducted its work in the open. During the first stages of the war, Colonel Hall Walker devoted

his time to recruiting, and he was able to secure a large number of men in the shortest possible time. He received considerable assistance from his constituency, where the excellent organisation of the registers enabled him to carry out very valuable work, and in connection with which he received admirable assistance from the Women's Association. During the early months of the war evidence was forthcoming to the effect that the Widnes chemical factory was being secretly interfered with, and careful investigation was undertaken, the cause discovered and quickly removed. He also took a very active interest in organising the members in the district, and, in the face of great difficulties, removed the influences which were working against the country.

Colonel Hall Walker's name is naturally inseparable from racing and hunting matters, and when the Government proposed to restrict indulgence in these sports, he convinced them very clearly of the necessity of breeding light horses as a national industry. He also convinced them that it was essential that racing should continue, reasoning that it was necessary to maintain the possession of thoroughbred horses. In order, therefore, to induce the Government to take an interest in this work, Colonel Hall Walker presented the nation with the whole of his breeding stud in Ireland. This was placed under the direction of Captain Greer, and after three or four years the Government realised a profit of over £7000 a year. It may be stated that this stud took fifteen years to develop. He also engaged in very delicate work in connection with the Intelligence Department, and was able to throw valuable light on many matters. He was Honorary Colonel of the territorial regiment, which regiment achieved great successes at the Front, and was always kept at full strength, Colonel Hall Walker recruiting no less than 12,000 men for the 1st and 2nd lines.

In the early days of 1915 he took up the question of remounts, and was requested by the Army Council to investigate the matter thoroughly. For this purpose he went through the whole of England and made a full report on the subject, and advised how the existing difficulties could be overcome. He also deeply interested himself in the work of the S.P.C.A. and secured better treatment for wounded horses. In August 1915 he went to France and visited and reported upon the whole of the horses there, including the remount and veterinary camps.

Lord Wavertree converted his London house into a hospital for officers, while Lady Wavertree studied and became a fully certified nurse. It is a tribute to the highly efficient manner in which this hospital was run that, during the whole of the time it was in service, only five patients were lost out of a total of nearly fifteen hundred.

### LIEUT.-COLONEL SIR WILLIAM WAYLAND, Deptford Town Hall, New Cross Road, London, S.E. 14

As soon as Lieut.-Colonel Sir William Wayland took office in 1914, he immediately started recruiting both for the Army and for the Volunteers, as at that time there was no Volunteer organisation. He called a town's meeting at the Town Hall and enrolled 350 recruits at that meeting, and formed the 16th Battalion County of London Volunteer Regiment, whose numbers by 1917 had grown to 1450. The recruiting campaign for the Army was carried on vigorously. In May 1915 Sir William Wayland started to raise the 39th Division, Royal Field Artillery, and within seven weeks the 174th, 179th, 184th, and 186th Brigades were formed and completed, and the 39th Divisional Ammunition Column. Then was commenced the raising of the 137th Heavy Battery, Royal Garrison Artillery, and this was completed in September 1915.

In 1915 the War Hospital Supply Depot was organised, and during its existence 800 ladies voluntarily gave their work, and all the schools in the borough assisted. Winter comforts were made by the schools and the depot for all units raised in the borough; cigarettes were sent out; and, generally, the ladies enthusiastically supported the efforts of the Mayor in every way. Conspicuous for their ability in making the War Hospital Supply Depot a success were Miss Morton as Organising Secretary, Mrs Berryman and Mrs Scott, and Mr Charles, as Honorary Treasurer.

No flag days were held in the borough during the war, but in place of flag days a house-to-house collection was organised by Sir William, assisted by a band of ladies with Mr Charles, the Borough Accountant, at their head, and a large sum of money was collected.

It is estimated that in this borough 18,000 men joined the colours out of a population of 109,000.

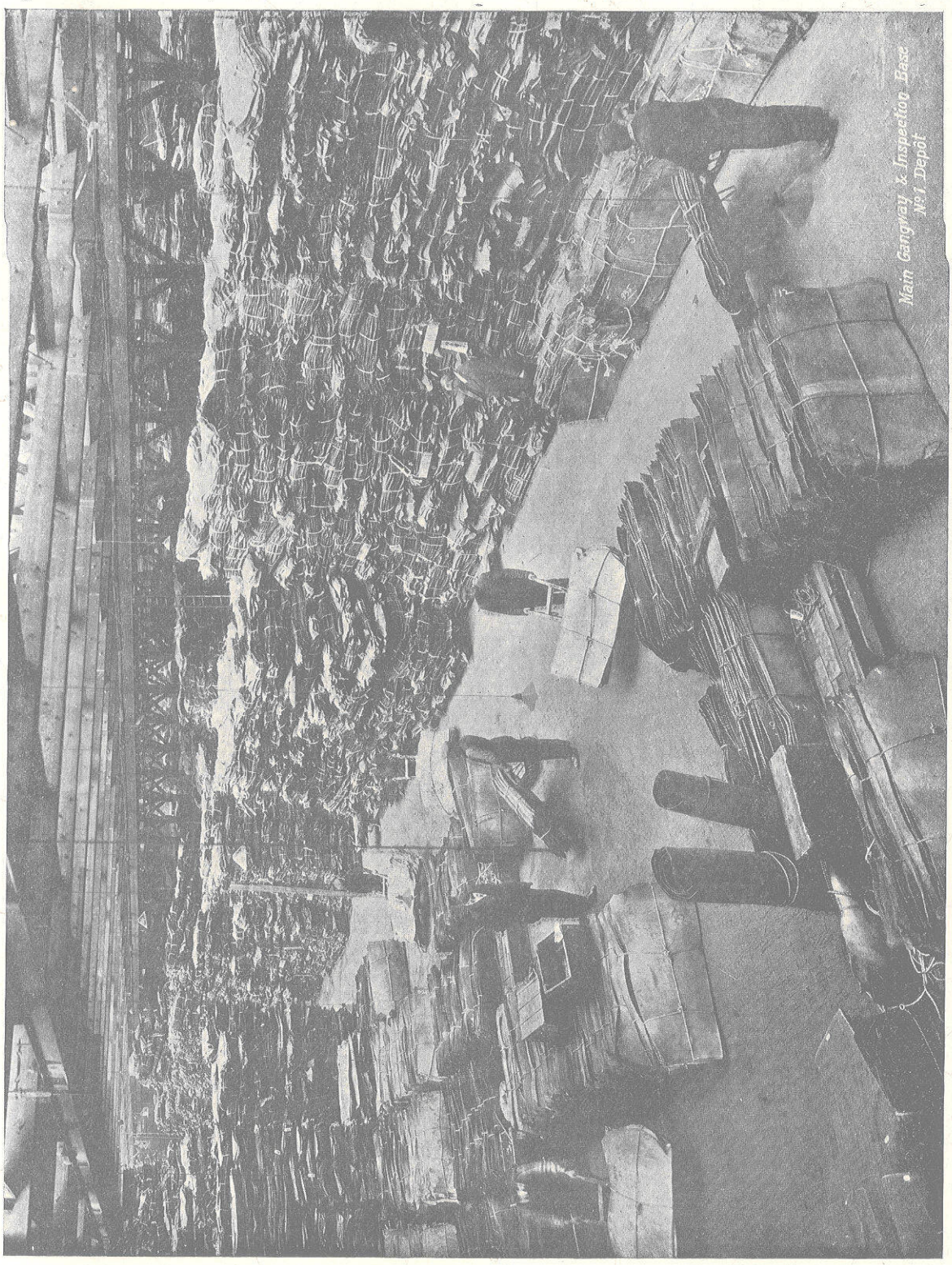
### JOHN C. WEIR, 114 Howard Street, Glasgow

After the outbreak of war it was apparent that, in view of the large and ever-increasing demands for army boots, harness and equipment, for our own and Allies' fighting forces, some form of Government control was necessary in order to obtain the most economical results.

During 1915 the Director of Army Contracts Department by an arrangement with the United Tanners' Federation of Great Britain and Ireland ensured the necessary supplies of suitable leather at reasonable prices, but on account of the rapidly increased war demands it was decided to form an advisory committee to assist in the great and important task of extending Government control. This committee was specially representative of the various trade sections concerned, and Mr Weir was invited to become a member. The work of this committee was of great value, and assisted the Department in obtaining all its requirements.

Towards the middle of 1917 he was approached by the War Office and invited to become head of the Sole Leather Department, as it was recognised that his experience as a leather factor and merchant would enable him to initiate closer relations with the tanners and manufacturers, with a view to a still further extension of control. Mr Weir accepted this responsible office, and immediately proceeded to place the tanners in a position to realise the vital national importance of securing the greatest output of leather of a suitable character to meet national requirements. The response was such that they were enabled to fulfil without difficulty the demands of the Army and needs of civilians. It was, however, apparent that complete control would have to be adopted, the problem of providing for civilian requirements, as well as those of our Allies, having become more acute in consequence of the greatly increased risk incurred in importing essential raw materials, such as hides and tanning materials. At the request of the Surveyor-General of Supply, Mr Andrew Weir (now Lord Inverforth), and Sir Arthur Goldfinch, K.B.E., Director of Raw Materials, Mr J. C. Weir was appointed Leather Controller, with the full responsibility for the management and the co-ordination of the various Departments. The Leather Control Board and heads of these Departments, several of whom were members of the leather trade, greatly assisted his work.

In view of the increasing difficulties of oversea transport Mr Weir early emphasised the necessity of building up a reserve stock of leather against possible Army requirements. The contention was recognised by the Government, and immediate steps were taken to secure this. This was naturally, however, a matter of time owing to the huge demands for war materials, but towards the middle of 1918 the end was attained, and this also placed the Department in a position to meet the increased supplies required to satisfy civilian needs.




Stocks of leather at Inspection Base Depôt.

## THE RIGHT HONOURABLE LORD WEIR OF EASTWOOD, P.C.,
Cathcart, Glasgow

THE wide engineering knowledge possessed by Lord Weir was, soon after war broke out, realised by the Government, and, in common with so many prominent men of his profession, he was drawn into the executive branches of various Ministries. About a year after the war commenced the whole efforts of the country had to be organised for the production of munitions on a large scale, and Mr Weir, as he then was, held a prominent position among the engineering concerns of Scotland, and was appointed Director of Munitions in that country. It was his business to control and guide this department of national service in such a way as to secure the greatest results possible, and the contribution of Scotland to the urgent supply of munitions is sufficient testimony to the manner in which Mr Weir carried out the work. In January 1917 it was realised that the methods adopted for the production of aircraft on an extensive scale would have to be practically reorganised, and to effect this thoroughly it was necessary that an engineer with a wide knowledge and experience of the class of engines in general use, and one possessing business acumen, should be selected. Mr Weir was therefore chosen as Controller of Aeronautical Supplies, and by wise organisation he was enabled to increase very considerably the output of aircraft. For these services the honour of knighthood was conferred upon him, and towards the end of 1917 he became Director-General of Aircraft Production in the Ministry of Munitions, and attached to the Air Board. In July of the following year Mr Weir was appointed Air Minister, and elevated to the peerage. The recognition of the valuable work which he had achieved during his service in the various offices also brought him the honorary degree of Glasgow University.

## SIR ARTHUR WHINNEY, K.B.E.,
Messrs Whinney, Smith & Whinney, Frederick's Place, London, E.C. 2

IN 1916 the Cabinet appointed a committee to inquire into Admiralty contracts, under the chairmanship of the Right Hon. Herbert Samuel; but, as the subject-matter involved questions of account, it was decided to form a sub-committee under the chairmanship of Sir George Franklin, Chartered Accountant, of which Sir Arthur Lowes Dickinson, of Messrs Price, Waterhouse & Co., and Sir Arthur

Whinney were appointed members. Upon the work of the committee being completed, it was decided to enlarge the Costings Investigation Division attached to the Department of the Accountant-General, and to form an organisation of which Sir Arthur was appointed to take charge under the status of Adviser on Costs of Production. Further developments took place on the appointment of Sir Eric Geddes as First Lord of the Admiralty, when it was decided to amalgamate one of the branches of the work of the Accountant-General's Department with the costings organisation, and Sir Arthur received the additional appointment of an Assistant Accountant-General. The work of the department over which he presided was concerned with the ascertainment of the cost of production of much of the matériel required by the Navy in the course of its operations, and included also the accountancy work connected with ship repairs, and by its operations large economies were effected. Sir Arthur remained in charge until after the Armistice. On his retirement in 1918 he received the thanks of the Board of Admiralty and was appointed by them as Honorary Adviser and Consultant. In January 1919 he was made a Knight Commander of the British Empire.

JAMES WHITE, Bank Chambers, 218 Strand, London, W.C. 2

THE nation which studied most carefully and provided for the needs of the many sides of human nature in the great and strenuous conflict which opened in August 1914, not regarding man merely as a machine, is the nation which will assuredly attain the end which it has set out to reach. To lift a man's mind from the high tension of modern warfare and lead it into lighter realms of thought and feeling is so beneficent in its effects as to recreate a man's spirit, and send him forth into the combat renewed and re-inspired.

The work which Mr James White undertook and carried out so efficiently was of this valuable character. Early in May 1918 he was requested by Lord Beaverbrook to institute the Sports and Entertainments Section of the Ministry of Information. The formation of a new Department in the Ministry was suggested, to be entitled the Department of Hospitality to American Forces. Mr White had, as Controller of this work, a free hand in arranging the entertainments. The scheme was developed on broad lines, devoid of departmental routine. For carrying out the arrangements several committees were formed, and a large number of prominent men in the sporting and theatrical worlds became members, contributing able and constant service.

The entertainments were initiated by a dinner at the National Sporting Club on the 8th of May, this being followed by a boxing programme and a billiard match. From that date continuous weekly boxing competitions were held at this Club, the competitors in which being members of the American Forces or the Imperial and Dominion Armies and Navies. In addition to these, various extra contests were arranged, while the famous American "Jazz" band, and the minstrel quartette from Admiral Sims' former flagship, U.S.S. *Nevada*, provided musical items.

Having placed this section of entertainments on a very successful footing, the General Committee felt that they could very profitably organise a series of Sunday entertainments for American sailors and soldiers. To carry this out, theatrical and vaudeville members of the main committee formed by Mr White enthusiastically took the matter up, and the Palace Theatre with its staff was placed at the committee's disposal by Sir Alfred Butt. These entertainments commenced on 9th June, and the opening concert indicated how welcome the arrangements made by the committee were to Americans in London. Lord Birkenhead (then Sir Frederick E. Smith) welcomed the guests to London, and remarked that our greatest concern was that America should treat England as bound to her by ties of affection and race, and that the one great good which would come from the war was a mutual understanding between the two countries. This was the spirit which dominated the whole of the organisation set up under Mr White's supervision, and there can be little doubt that it achieved the objects which they had before them.

The last performance under the ægis of this committee was held after the signing of the Armistice, at which Admiral W. S. Sims and Major-General John Biddle, representing the American Army and Navy, were present. These officers seized the opportunity of expressing their sense of the good-fellowship and mutual understanding which had been developed by the joint efforts and sacrifices which the British Empire and the American Republic had made in the cause of freedom. Another section of the committee's work was the English up-river trips fathered by Mr S. B. Joel, who bore the whole expense of chartering steam launches to ply between Maidenhead and Henley for a week. On each of these trips 150 American guests, drawn from the personnel of the American Forces, were catered for. The first trip was made on 30th June, and was repeated every succeeding Sunday until the beginning of September. A sub-entertainment committee for carrying out similar work was instituted at Southampton, and boxing tournaments and a great sports carnival were organised. The Sports Committee of the London organisation also arranged a great sports carnival at Chelsea on 7th

September, which was open to soldiers and sailors, and the American, British, and Dominion forces, and proved a great success. During the summer, tennis tournaments on the American system were arranged, the competitors being drawn from Great Britain, the various British Dominions, and America. The chairman of the Committee of Queen's Club placed its courts at the disposal of the committee, and the tournaments were launched on 3rd July with a match between teams representing Canada and Australasia. These tournaments were continued up to the beginning of September. Various other efforts were made in the same direction, and among the most important was the extensive concert provided for 15,000 Americans, which was organised and carried out in the short space of twenty-four hours. A similar entertainment was given on Independence Day, 4th July, for which 4000 tickets were distributed, admitting American sailors and soldiers to any of the principal London theatres.

### GENERAL SIR REGINALD WINGATE, Bart., G.C.B., G.C.V.O., G.B.E., K.C.M.G., D.S.O., Knockenhair, Dunbar, Scotland

During the first few months of the war Germany was making very great efforts to secure the adherence of the Mohammedans and the Arabs in the eastern parts of Europe, as well as in Egypt and the Sudan. Very active propaganda was indulged in, and personal influence was brought to bear upon them to throw in their lot with Germany, whose government held out very attractive rewards for any support that might be given. Remembering the inflammatory nature of these people, and their readiness to give credence to mendacious misrepresentation, very dangerous and far-reaching results might have been attained had it not been for the personality and energy of Sir Reginald Wingate, who was at that time Sirdar of the Egyptian Army and Governor-General of the Sudan. Sir Reginald had, during the many years he had been associated with this country, come to be regarded as the personal friend, not only of those in high places, but of the natives themselves, and it was due to this and to his personality that, when the evil influence of German propaganda was very apparent in the country, he was able to counteract its effect, and bring the Egyptians to realise that England was their protector as well as their friend. So great was the influence that Sir Reginald possessed in that country that, when Great Britain declared war against Turkey, the religious and secular leaders voluntarily

declared, in solemn conclave, their firm adherence to the cause of the Allies, and from that moment they loyally co-operated with the British authorities throughout the country in all precautionary measures to deal with the enemy should he attempt to disturb the peace in the Sudan.

Acting on instructions from Berlin and Constantinople, the Sultan—Ali Dinar—of Darfur, through the medium of the Grand Senussi, declared war against the Sudan in 1916. Sir R. Wingate immediately organised an expedition, which he personally despatched across the frontier at Nahud; and on 22nd May 1916 the capital of Darfur was brilliantly captured by Colonel Kelly, the commander of the expeditionary force, after a sanguinary battle outside the walls of El Fasher. Flying columns under Major Huddleston pursued the fugitive Sultan, who was eventually killed in action; and this great province, nearly as large as France, was incorporated into the Sudan.

In the same year Sir R. Wingate took a leading part in assisting the Sherif of Mecca in his successful revolt against the Turks, and, with the aid of the troops which the former despatched to his aid from the Sudan, Mecca and Taif were captured, and an intensive campaign was organised against the Turkish garrisons throughout the Hedjaz, and especially against the Medina-Damascus Railway. The Arab armies succeeded in cutting this railway in many places, thus isolating Medina, which was subjected to an open siege for many months. Sir R. Wingate was appointed G.O.C. Hedjaz Operations from 9th June 1916 till 31st January 1919, when the operations closed with the surrender of Medina on 10th January 1919. Shortly after the capture of Mecca, Sherif Hussein was created King of the Hedjaz, and Sir R. Wingate was able to place at his disposal, for the organisation of his armies and the conduct of his operations, a number of capable and experienced British officers, quantities of warlike material, including guns, rifles, and aeroplanes, with which the various Turkish garrisons throughout Northern Arabia were driven out or captured. He finally made over the command of the Northern Arab army, under the direction of the Emir Feisal and Colonel Lawrence, to the Commander-in-Chief of the Egyptian Expeditionary Force, General Sir Edmund Allenby, to co-operate in the advance on Damascus, Sir R. Wingate himself retaining general direction of the operations south of Maan, until the fall of Medina.

On 1st January 1917 Sir R. Wingate was appointed High Commissioner for Egypt, which had now become the base for the campaign against Palestine and Syria; and from this date onwards he devoted all his energies to mobilising the resources of Egypt and the Sudan, with a view to giving all possible assistance, first to General Sir A. Murray, and later to General Sir E. Allenby, in the prosecu-

tion of their campaigns in these countries. In company with the Commander-in-Chief, he constantly visited Palestine during various phases of the operations, and was frequently mentioned in despatches between January 1917 and August 1919. Sir R. Wingate's connection with Egypt and the Sudan was severed at the close of 1919.

## SIR ARTHUR KEYSALL YAPP, K.B.E., Highfield House, Enfield

DESCRIBED in many quarters as the driving power behind the great organisation of the Young Men's Christian Association, Sir Arthur Yapp's record of services rendered to our soldiers and sailors may safely be described as unparalleled. He was first associated with the movement shortly after he left college, when he became Secretary of the Derby Association, and later General Secretary of the Manchester district. In this capacity he extended the movement in the great Lancashire town to an extent almost beyond belief, and to this day the enormous Y.M.C.A. building stands in the heart of the city, a lasting tribute to his organising ability.

With the outbreak of the war came the problem of employing the spare time of the hundreds of thousands of young soldiers—many of whom had never previously left home—and providing fitting physical and moral recreation for them, both in the training camps and in the battle area. Sir Arthur, then General Secretary of the British National Council of the Y.M.C.A., applied himself vigorously to the solution of this problem, and, employing the whole power of the organisation, he had, within three months of the declaration of war, no fewer than 600 Y.M.C.A. centres dotted over these islands. Tents and huts were erected in all the training camps, not only in this country, but in France, Egypt, Mesopotamia, Salonica, the Italian Tyrol, German East Africa, and, in fact, in every part of the globe where British troops were centred. The huts were comfortably equipped, food could be obtained at practically any hour of the day or night, writing materials were always available, and Divine Service was held two or three times every week. At the time the Armistice was signed over 2000 centres were in being, and an army of 48,000 voluntary and paid workers were furthering the cause of Christianity, and providing rest, food, and shelter for the troops.

Sir Arthur's tireless energy in promoting this vast organisation led to an invitation by the National Y.M.C.A. War Council of the U.S.A. for him to cross

the Atlantic and assist the movement in that country. His remarkable administrative ability induced Mr Lloyd George and Lord Rhondda to select him for the post of Director of Food Economy, and in this capacity he was responsible for the vast campaign which was organised to induce the public to economise food and thus to conserve the country's resources when the inroads which the enemy submarine blockade had made on our incoming food supplies had caused a very serious situation to arise.

In recognition of his ceaseless energy on behalf of the troops, and in his official positions, His Majesty the King invested Sir Arthur with a Knighthood in the Order of the British Empire, and, on the occasion of the investiture, specially detained him in order personally to express his appreciation of the immense efforts which the Y.M.C.A. had put forth.

## SIR ALFRED YARROW

The Great War presented unlimited opportunities for the exercise of inventive genius, not only in the direction of new weapons of attack, but in the equally important aspect of precautionary methods of defence. In such momentous times the provision of a collateral incentive is an effective auxiliary to the employment of mechanical methods, and, recognising this fact, Sir Alfred Yarrow offered, in March 1917, an award of £20 to any passenger or member of the crew on board a merchant ship who first sighted a submarine. In order to carry out this scheme he placed at the disposal of Sir Thomas Devitt, Chairman of Lloyd's Register of Shipping, the sum of £10,000. The whole of this amount was distributed, and the awards were continued from money subscribed to Lloyd's Register by several of the public bodies of the City of London. This foresight and generosity resulted in a number of vessels being saved from destruction, owing to the early sighting and reporting of enemy submarines. The awards were earned by all classes of men—from the chief officer to the cabin-boy, from the steward to the lascar.

In July 1917 Sir Alfred supplemented this scheme by placing £20,000 at the disposal of Sir Thomas Devitt, to enable him to distribute £1000 among the captain, officers, and crew of each merchant ship which captured or destroyed an enemy submarine. At the time of the signing of the Armistice about half of this amount had been distributed, the balance being devoted to the benefit of the seafaring community.

When the three cruisers *Aboukir*, *Cressy*, and *Hogue* were torpedoed early in the war, a number of the crew were drowned through not being able to keep afloat a sufficient time to enable them to be saved by the numerous small boats on the spot. Sir Alfred, therefore, turned his attention to designing a buoyant waistcoat which could be continuously worn when navigating dangerous waters. After testing numerous materials, he selected kapok, which possesses a buoyancy of from 16 to 20 lbs. A specification was drawn up, and firms selected to make these appliances. They were extensively adopted, and were presented to the officers and men on board each of the destroyers built by Yarrow's, Ltd., during the war. The buoyancy of the waistcoat was amply sufficient, not only to save the wearer from drowning, but also to enable him to save a comrade.

Early in the war Sir Alfred's son, who was afterwards killed in action, wrote from France drawing attention to the fact that the white face of the British soldier served as an excellent target for German snipers, and he desired that some means be devised whereby the conspicuousness of the face could be reduced without interfering with the vision. Sir Alfred therefore designed a military veil, which covered the face but left the eyes free. The colour of the veil was determined by the surroundings. He offered Lord Kitchener 1000 of these veils if he would have them tested under actual war conditions and reported upon. The offer was at once accepted and their efficacy established, with the result that large numbers were ordered by the War Office and issued to the troops.

Soon after the outbreak of war the committee of the Yarrow Convalescent Home, Broadstairs, of which Sir Alfred is President, offered to convert the Home into a hospital for wounded soldiers, as it was conveniently located to receive men landing at Dover. This offer was accepted, and the necessary appliances to enable surgical operations to be carried out were fitted up. The committee ran the hospital from November 1914 to August 1916, when it was taken over by the Canadian authorities, who were granted the use of it free of rent. Owing to the exposed position in which it stood for attacks from the sea and air, the building was shortly afterwards closed.

During Sir Alfred's association with this hospital, he discovered that a number of the men had lost their feet and legs through frostbite. He, therefore, turned his attention to the task of reducing this danger, and in December 1914 he carried out some experiments on the effect of rubbing the legs and feet with oil. The results of these investigations were conveyed to Lord Kitchener, and, as a result, two barrels of whale oil were despatched to France in order to test its efficacy under actual conditions of trench warfare. The

experiments proved not only that the risk of frostbitten feet was reduced, but that, if the application was systematically carried out, it was a complete protection, and this method was ultimately adopted during the winter months throughout the war.

In the early days of the war Sir Alfred represented to the Foreign Office the necessity for establishing a propaganda campaign throughout neutral countries, as he discovered that the true facts concerning the war and its origin were unknown, and also that active propaganda work had been initiated by the Germans which tended to mislead the people. He urged upon the Foreign Office the importance of taking steps to counteract this, but without any practical result. Sir Alfred, therefore, started a propaganda campaign on his own initiative, and distributed weekly extracts from the Press of this country to 1400 newspapers all over the world. Wherever possible, these extracts were translated into the language of the country in which they were to appear. The scheme had been in operation for several weeks when the Foreign Office raised objections to its continuance. A Ministry of Propaganda was ultimately established, thus confirming the wisdom of Sir Alfred's policy.

Numerous letters were received from friends in France, Egypt, Mesopotamia, Salonika, and East Africa, pointing out that flies and mosquitoes were not only a source of great discomfort to the troops, but were also the means of spreading disease. Sir Alfred, therefore, had equipments prepared, based upon Professor Lefroy's prescription, and sent abroad to the extent of 1000 outfits per month. These were found of the greatest benefit to our troops in those infested lands. The equipment consisted of a metal sprayer and several bottles of a solution devised specially for the purpose.

Early in 1918 Sir Alfred drew the attention of Sir Eric Geddes to the necessity of taking steps to avoid the smoke issuing from funnels of merchant ships. It was this column of smoke towering up into the air which provided the first evidence of the presence of a ship, and it was this for which the commanders of enemy submarines and raiders searched. The firm devised a system whereby the smoke was diverted downwards to the level of the sea. This system had the advantage also of slightly increasing the draught in the stokehold and the speed of the ship. The device was fitted to a few vessels with great success, and had the war proceeded a large number of merchant ships would, no doubt, have been equipped with the anti-submarine smoke system.

## HIS HIGHNESS NAWAB HUSSEIN YAWARKHAN, SAHEB BAHADUR, Cambay, India

In common with the majority of the Indian States, Cambay, to the throne of which His Highness ascended in January 1915, assisted generously towards the national funds, in addition to supplying recruits for the Indian Army, and contributing towards the conclusion of the war in many minor directions.

To the Imperial and other War Relief Funds, Rs. 30,574 were given by the State, and a further Rs. 6000 by the Privy Purse. Rs. 2,91,300 were invested by the State in the War Loan, Rs. 3000 by the Privy Purse, and a further sum of Rs. 3,81,755 by the Public Bonuses were supplied to recruits in the Government recruiting depot by the State, and privately to the extent of Rs. 2325, a further gift of clothes to the value of Rs. 442 being given by the State to the same depot.

The full appreciation of this generosity can best be realised from the fact that the average State revenue for the four financial years 1914–1918 amounted to only Rs. 6,58,106.

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