TO AUSTRALIA IN TWO AND A HALF DAYS, scheduled time of the British Overseas Airways Corporation service, is the regular trip of the Lancaster, seen at Hurn airport, near Bournemouth. A Government plan to nationalise civil air services was announced on November 1, 1945. Three public bodies will operate them—the B.O.A.C. between the U.K. and the Commonwealth, the U.K. and Far East; two others between the U.K. and the Continent and the U.K. and South America respectively.

Edited by Sir John Hammerton

NO. 222 WILL BE PUBLISHED FRIDAY, DECEMBER 21
Nazi Eclipse Perpetuated in Stone by B.A.O.R.

AT LUNEBURG, marking the site of the German surrender on May 5, 1945, our troops had by November almost completed a permanent stone memorial (1). The temporary planking (see this illustration), which proved unsatisfactory, was replaced by a more permanent one. A corporal-constructor at the British Army School at Nienburg, Hanover, demonstrated a plaster mural (2) of his own design; there are over 700 pupils at this school, including those from the U.S. (3). The instructors for Civvy Street learn sign-writing, plastering, carpentry and bricklaying, and R.E.J.E.Cs studying to be radio-mechanics, fitters and welders.

Thrill for men of the Royal Scots (4) serving with the 31st Law- enforcement Battalion, a panzer division, when on leave with a German gamekeeper, was deer-stalking and boar-hunting in Harford, in a drive to kill food for the winter larder. Enjoying a big "demos" party in a N.A.A.F.I. caisson in Berlin (5).

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SINCE the long-foreseen but unexpectedly early termination of the Anglo-American Lease-Lend arrangements the newspapers have contained many articles on the subject of the financial relations of Great Britain and the U.S.A. Most people are aware that important negotiations have been taking place in Washington, but are deterred from attempting to understand what these are about by the apparent difficulty of the problems involved.

I will not try to pretend that they are all simple, for none of them have had to be solved by the negotiators in Washington, but I hope to show that the fundamental issues are not only of great importance to everyone in Great Britain, but are also fairly easy to understand.

In the first place, all the problems are connected in some way with the export of dollars to the creditor countries. Why need Great Britain need dollars at all? The first part of the answer is obvious—we need dollars so as to be able to make payments to American citizens who generally do not want pounds sterling because these can only be used in Great Britain.

To Pay for Current Imports

At present, most of the payments British citizens wish to make to Americans are payments for goods, particularly foodstuffs, which only America is at the moment able to supply; payments for the use of American ships; and payments of interest on sums of money lent to American citizens by British citizens in the past. Before the War, payments were also made to America by British citizens abroad across the Atlantic by means of American money, in American lira, hotels and service tickets bought by British travellers and tourists. Once the U.S. was at war, all went well. If all goes well, additional demands for dollars will revive very long, but at present they are negligible in comparison with the need for dollars to finance our current imports of food and other necessary materials.

AFTER the middle of 1941, the necessity for dollars for this purpose was a serious problem because the need for goods and services imported from America was met by the Lease-Lend arrangements. But since that particular "weapon of victory" has been beaten into a ploughshare, or at any rate laid aside, the continued need for American goods means an urgent requirement for dollars with which to buy them.

This brings us to the heart of the matter. The answer to the question "Why do we need dollars?" is that the second is rather easy to appreciate, but in some of its ramifications, it is even more important. During the War, as most people realize, the Dominions, India and some other countries supplied great quantities of goods and services to Great Britain on credit, without current payment. That is to say, they provided the goods and services we gave in exchange for I.O.U.s. These I.O.U.s were expressed in pounds sterling, and together made up what are called "Sterling Balances in London." They amounted to perhaps $10,000,000,000 and with the supply which are owed by Great Britain to citizens of these countries.

Before long the holders of these Sterling Balances will wish to receive payment of the I.O.U.s by part or in whole in three ways. Either old debts of the countries concerned to Great Britain can be set off against the new debts of Great Britain to those same countries, or the Sterling Balances can be used to buy British goods to be shipped to the creditor countries; or, finally, the Sterling Balances can be converted into foreign currencies and then used to buy goods in other countries.

AT THE ANGLO-AMERICAN MONETARY TALKS which opened in Washington on September 17, 1948, were (left to right): Mr. Leo T. Crowley, U.S. Foreign Economic Administration head; Lord Hailes, our Ambassador; Mr. Will Clayton, U.S. Assistant Secretary of State; Lord Balniel, our commercial representative. The talks were still in progress in late November.

In effect, therefore, the paying-off of the old debts of Great Britain to the countries that accepted payment in sterling IOUs during the war, really means making available either British goods or American dollars. The first method does not directly create a demand for dollars, except in so far as the manufacture of British goods requires the use of American raw material and machinery. But the second alternative obviously does create a demand for dollars which has to be added to the need for those required to pay for our own essential imports from America. Britain.

How can these demands be met? First, most demands can be met by using our own equipment and home-produced material as efficiently as we can. But this will not solve the problem. In the second place, we can attempt to meet our requirements to a great extent in countries other than America, so as to avoid transactions giving rise directly to a demand for dollars. But quite evidently this will not necessarily prevent an indirect demand for dollars on the part of countries who are paid in sterling but want to exchange this sterling for dollars to be spent in America.

Besides, if it is not possible to obtain all our requirements inside the so-called Sterling Area (that is, those countries prepared to accept Sterling Balances or regulate their exchange rates in terms of the pound sterling), the U.S.A. will have to do it for us. At present, though it might if necessary and at some cost be made so, the Commonwealth is not economically independent of the U.S.A.

Two final alternatives remain. We can (and most probably will) accelerate our reparation and demobilization, so that the dollar supply available to the present holders of Sterling Balances will be reduced. This may, of course, mean going short ourselves. It might, too, be necessary to ration the supply of dollars obtained by selling British goods and services to Americans made available to the holders of Sterling Balances. In other words, we might have to persuade these creditors to spend their Sterling Balances in Great Britain, and not to ask for dollars.

Our Disagreeable Necessity

The American negotiators describe this as "discrimination" against the dollar, and its feasibility in some circumstances is not, apparently, clear to them. This procedure appears, moreover, to conflict with certain clauses of the "Master Agreements" under which Lease-Lend was based. To us in Great Britain, however, this was always accepted, as a way of being able to supply any foreign currency in exchange for sterling on demand, such an arrangement, within a "Sterling Area," largely self-contained and based mainly on a close agreement between the parties. An American commitment to our monies, naturally appears a miscalculation, yet it must also do to the other members of this hypothetical association.

But until the dollars can be made available by a great expansion of British exports to America, it would be the only choice before us—and America were willing to offer "Reconstruction Loans on acceptable terms to tide us over the transition period. As has been repeatedly emphasized, the request for such Loans is not a demand for Charity, but a disagreeable necessity forced on us by the completeness of our wartime mobilization, the fruits of which the U.S.A. itself is actually enjoying today.

In the short run, the supply of dollars will therefore be determined partly by the speed of our reparation and the vigour of our export policy, and partly by the willingness of the U.S.A. to advance suitable loans. In the long run, when our economy has been reconstituted and its productive efficiency increased, the supply of dollars will depend on the willingness of the U.S.A. to buy British goods. That will depend, in turn, on our American Tariff Policy, and on the avoidance, by the United States, of Great Depressions in their own economic life, which would reduce the ability of the U.S.A. to buy imports.
It is widely realized that behind the fighting troops, and to a large extent interlocked with them, there is a great body of men carrying out ancillary services of vital importance. Few, however, can form a clear conception of the immense variety of their functions or of the problems with which they have to deal.

In the American Army these services, except so far as certain of their units form an integral part of the fighting formations, are grouped under the general title of Service of Supply (S.O.S.) and form an organization operating under its own commander and H.Q. staff. Recently, as a souvenier for the troops of this organization, the American information officers have published a little book describing the role of the S.O.S. in the defeat of Germany which gives a very adequate, though necessarily incomplete, picture of the work of the rearward services of the armies.

To be frank, the weakness of the book is that it gives the impression that the American Army devised a unique organization, and it would not be surprising if it confirmed many American readers in the belief that their organization was not responsible for the victory of the Allies. Whereas, of course, the S.O.S., like all other large and complicated services, faces the same problems to face in maintaining the service of supply and possessed similar if somewhat differently constituted organizations.

BRITISH Experience and Inventions

Helped U.S. Before She Entered War

Nevertheless, the book should be welcomed as a tribute to those troops whose work attracts less attention than that of those engaged in tactical operations, in spite of the fact that they have to face risks often as great and more constant. The evacuation of wounded, building of repairing bridges under fire, the lifting of mines, and the delivery of supplies and food in the combat zone, all demand qualities of cold-blooded courage quite as remarkable as courage shown in the heat of battle.

The Americans can claim with justice that their equipment was of a higher standard than in any other army, and that their troops were better fed; but that was only to be expected, for no other country, except Germany, had more time to prepare deliberately for war, or had greater resources on which to draw. In addition to that, British experience and British inventions were freely recognized to America before she had even entered the war. She had practically no defensive problems to face, her country had suffered no great damage from enemy action, and, from the first, her main problem was to prepare for D-Day in Western Europe and for the developments that would follow.

S.O.S., is dealt with only in the last two chapters of the book, and this is almost the sole acknowledgment of the part Britain took in preparing for the great amphibious operation by which alone decisive operations against Germany could be initiated.

Many comparisons, on the other hand, are drawn between the tasks of the S.O.S. in the United States and what the Americans call "World War I" (W.W.I) and, those in W.W. II, in order to emphasize the immense development of the S.O.S. in W.W. II. Actually the proportion of personnel in the S.O.S. organization to that of combat troops (about three-fourth of the total) was much the same in both wars, although the bulky and weight of material to be handled and the variety of tasks to be performed were vastly greater in the second war. The comparison is, however, vitiated by the circumstances in which the wars were fought and the advances in mechanization.

The chief changes in circumstances were that in W.W.I the Americans could be landed straight from the U.S.A. into a country with highly developed ports and intact roads and railway systems; and that once landed they could be introduced gradually into a static situation. Whereas in W.W. II not only had the base in Britain to be prepared and the first landing on the Continent carried out as a major operation, unprecedented in character and scale, but thereafter highly mobile operations in a devastated country were immediately necessary.

The book gives a very interesting account of the landing of the American Army in Normandy, though many of the important points of the S.O.S. are not discussed, and that the decision to commence landing at low water was taken in the interest of the rapid development of the S.O.S. rather than of that of the assault troops. It was to ensure that passages should be cleared by demolition parties through the beach obstacles, to admit of the rapid re-inforcement of the leading assault troops by mechanized armament and ample munitions.

How nearly the main landing came to failure is admitted, for almost nothing went according to plan; and the rising tide made passage impossible. Vehicles were enangled and destroyed. When the shore was gained by the leading assault troops they therefore lacked supporting weapons, and little progress could be made inland; and only a small tonnage of supplies was landed during the day. Nothing but determined and gallant leadership of small parties prevented complete failure.

WHY Cherbourg's Capture Did Not Conform With the U.S. Timetable

Fortunately, on the smaller beach, resistance was less formidable and everything went according to plan. In consequence of the check on the main beach, however, the momentum of the first assault failed to develop, and Cherbourg, which it had been hoped would be captured within three days, did not fall until June 27. The delay in capturing Cherbourg became all the more serious when the great storm which started on June 19 broke up the attempt to construct the Mulberry "A" harbor made for the Americans' use by Britain. Thereafter the task of the S.O.S. in the build-up for further operations became immensely heavier and called for all the ingenuity and talent for improvisation that American engineers possessed.

The break-out from the bridge-head was certainly delayed; but when it came, it soon showed that the rapidity of General Patton's thrust. How greatly the speed of his thrust and the maintenance of his momentum was due to the work of the S.O.S. is told. The reckless courage shown by the German troops who threw themselves over a line in a "Heath Robinson" condition fully equaled that of fighting troops.

But there are limits to what even the most efficient rapid railway service can do. Roads and bridges and railways were continually attacked at an astonishing rate and even the most fully equipped ports and the distance over which goods had to be brought finally brought the Allies to a halt. Antwerp was captured by Montgomery's men; but the approaches to it were cleared and it became available as a base for both the Allied armies, operations on a decisive scale could not be undertaken. Throughout the story we are made increasingly to realize the dependence of the fighting army on well-established bases and good lines of communication.

An undoubted fact emerging from this is that the American Army's advantages in the powers have of launching amphibious attacks at unexpected points of their own selection cannot be exercised at the opening of a war.

Unless it has a continental ally who can give it well-equipped ports and space for the deployment of its armies, a maritime nation cannot therefore not immediately open new operations in a continental war with any approach to the speed with which a continental Power can launch an attack in numbers against a neighbour. The success of amphibious operations in the past should not mislead us on this point.
Great Clean-Up in Jap Rat-Runs of Hongkong

THE SWORD OF A JAPANESE WAR CRIMINAL, Sergeant Kenichi Matsuda (l), was scrutinized by a R.N. R. lieutenant in Hongkong, where Matsuda's fellow-prisoners were still being questioned in November 1945. The Crown Colony has been administered by the Royal Navy and the Civil Affairs Service since its Occupation. The Spirit of Australia (1), her "wings of war" folded on her flight-deck, prepared to sail for Australia with civilian ex-internees.
Although the war is over in Europe its after-effects are still being felt and are by no means at all negligible. Their influence on the life of the average citizen. This has been brought home to many coastal dwellers of late by the unpleasant frequency with which mines, set adrift by rough weather, have been washed ashore. Fortunately they do not often explode on stranding, but when they do so an inhabited area damage and even casualties are to be expected.

Many are the suggestions received by the Press from readers who imagine there must be some way of averting this recurring menace. It is seldom appreciated that it is no remedy to fire at a mine when it appears on the surface inshore; though the outer casing may be pierced and the mine water-logged and sunk, it does not then explode, but goes to the bottom. In deep water it would then be fairly safe; but in the shallows that surround the English coasts it continues to be a perpetual menace to fishermen and divers. Thus the only course to be followed with a mine sighted drifting in a choppy sea near the beach is to wait until it has grounded without explosion, and then render harmless the mechanism by which it is detonated. In a smooth sea a floating mine can be taken in tow by a boat and sunk in deep water if an expert is available who knows how to handle it.

In the Department of the Director of Torpedo and Mining at the Admiralty there is a section which, in general, exercises control over the business of rendering safe mines of various types. This present head of this section is Commander F. Ash Lincoln, R.N.V.R. (portrait above). Actual disposal of the mines washed up is mainly the responsibility of H.M.S. Vernon, the torpedo school at Portsmouth, though there are mine disposal officers also at Chatham and Devonport as well. These officers must be in readiness to proceed at a moment's notice to whatever place they may be directed, to deal with mines that have arrived on the shore.

By FRANCIS E. McMURTRIE

A T sea the business of minning and disposal of mines may be divided under four heads. First, there is the very large field covered by the Superintendent of Mine Design, who has under him a numerous staff of scientists and highly qualified technical officers. In wartime, fresh ideas are tested and adopted, or discarded, as the case may be; reports of enemy improvements or other novel features are investigated and made the subject of experiments; and the recommendations received from those who have had actual experience of types recently placed in service are considered and followed where desirable.

Controlled mining is quite a specialised department. It has to do with the detection of harbours, basins and narrow channels by means of minefields controlled from the shore. Mineweeping is another important responsibility, involving sweeping clear of mines all navigable channels. This is a much longer and more tedious job than it used to be, since the great variety of mines employed by the enemy necessitates covering an area more than once to ensure the elimination of the menace of the delayed-action type (see article and illustrations, pages 92-3).

Then there is the general duty of dealing with mines of all types and rendering them innocuous when emergency demands it. Most famous of pioneers in the latter work was Lieut.-Commander J. G. D. Ouvry, D.S.O., R.N., of H.M.S. Vernon. In the early days of the war, when German aircraft began dropping mines around our coasts, especially in the busy channels of the British estuary, one of these mines fell in a soft spot off Shoeburyness, where it was uncovered at low water. By personally dissecting its mechanism in slow motion and explaining each step as completed to his assistants in shelter close by, Commander Ouvry rendered this mine harmless, so that it could be removed and taken to pieces elsewhere (see page 124, Vol. 7). This enabled the scientific experts, notably Commander C. F. Goodenow, O.B.E., V.D., D.Sc., F.R.S., R.N.V.R., to devise methods of rendering ships impervious to the magnetic mine danger, similar steps were taken to guard against the acoustic mine.

It was Commander Ouvry's experience which became the basis of the present technique of rendering mines harmless, and continues to inspire those who undertake this hazardous work. However carefully it is carried out, there is always the risk of a booby trap. That methods of handling without disaster the complicated arrangements of dozens of different types of mines should thus have been perfected is a testimonial to the high standard of efficiency reached by the naval and scientific staffs of the Vernon mining departments during the late war.

BRITISH Mines Designed to Be

Harmsless on Breaking Adrift

Although final figures are not yet available, the number of mines laid and swept during 1939-1945 is very greatly in excess of the total for the First Great War. Not only has the work of removing mines been more difficult, but owing to the many types employed by the enemy it can never be said with safety that an area has been cleared after a single sweep. For example, some of the mines employed by the Germans incorporated clocks or other fanciful devices. Not until the clock had reached the particular time for which it was set did the mine become active. Such mines laid in swept channels were apt to be a most disconcerting surprise.

Of the mines that were being deposited on beaches in the south of England today, a majority are undoubtedly German. Unlike British-laid mines, those of the enemy were not designed to become harmless on breaking adrift. Nevertheless, some which had lain submerged for long periods had become encrusted by marine growths such as seaweed and shellfish, which may indirectly have had the effect of holding up the detonating gear. Careless stripping of the encrustations might result in releasing a detonator. (See facing page, also story in page 473.)

ROLLING THE MINE INTO POSITION is one of the first tasks of the Royal Navy men engaged on the special duties of rendering these deadly weapons harmless. The narrowchannel between Selsey and St. Leonards, Sussex. Subsequent operations of a Rendering Mines Safe squad are shown in the facing page.

PAGE 480
R.M.S. Squad in Action on an English Beach

DRAWING OUT THE EXPLOSIVES CONTAINER (1) is one of the tricky operations of a Rendering Mines Safe squad. After the mines at Littlehampton, Sussex, had been rolled into position (see Illus. in facing page), the officer in charge removed the coverplate and stripped off the explosive filling. A (2)monkey explosive tube is then thrust into the mine. Later, smoke is blown over the beach as the explosive was ignited to make a harmless bonfire.
How Four-Footed Warriors Helped Us to Win

As astonishing a variety of animals served with fire troops at home and overseas, in divers capacities. Each possessed of special qualities which made them useful in most indispensible duties. Here are some of the various classes of horses, mules, and mule-like animals in service in the Army and the Navy. The Army now has a regiment of mules, to be used in the transportation of supplies. The Air Service is also using mules for this purpose. The Navy has a regiment of mules, to be used in the transportation of supplies. The Army also has a regiment of mules, to be used in the transportation of supplies. The Air Service is also using mules for this purpose.

In the war's later years volunteer dogs from all sorts of homes were drafted to Active Service, at the rate of an average of one per month. They went with our men to Normandy on D-Day, and trained recruits followed continually. Although many had had pre-war roles as "eyes" for the blind, assistance in police work, and some haderved a few special duties in previous wars, nobody had ever expected that you could rely on them as a resource. But they were not only useful in many ways but also in combating the enemy on the battlefield.

The idea of their employment in such roles evolved from the training given to a number of dogs early in 1940 to act as sentries over ammunition stores and to watch for and tackle parachute invaders. They didn't have much opportunity to prove their worth in the second capacity, but so efficient were they at guard duty that there were soon hundreds of well-trained animals doing sentry-duty at military installations, aircraft factories, and dis- tered war plants. They proved a valuable aid in the detection and prevention of pillaging and sabre-rattling, and the obedience of a single master each group released large numbers of men for active duties in the War. Their valuable contributions are affecting considerable economies in man-power.

Dogs became indispensable on the battlefield.

These were largely home-front and base dogs. As time passed, dogs became increas- ingly valuable in overseas warfare. One of the earliest recruits to the Corps of Military Police, Dog Section, was Simi. It takes a keen eye and a sharp nose to find a dog with an 800-gallon Boxer dog and get away with it, and during his two years' service with the CMR he superintended no fewer than 83 arrests at military stores and dépots. He had also carried out All over this territory Simi was the terror of tenant-gangs of thieves, who treated even his name with wholesome respect. Dogs became indispensable on the battlefield.

Most of the "camel corps" that operated in the desert were petrol-fed—that is, motorized. But the camel still remains on the field of battle, performing feats of valour. Aircraft, car, lorry, new roads and railways have failed to displace the breeding of camels, but it is a long road yet to their extinction. In the mountains, in waterless bush country where aircraft cannot land, in territory where motor vehicles can be ambushed by felling trees, camels can achieve more than mere transport. And so "camelery" were to be found in the forefront of the fighting, as transport of the first and second lines. A camel doesn't panic. A sturdy, stoical, uncomplaining beast, he can carry a pack load the weight of four average men for most of the hours of the day. He doesn't refuse to do it for several days on end, without food or drink. He will suffer a bullet wound without flinching, even travel till the end's with lungs perforated by bullets. Which explains why so many camels were drafted for work in special regions throughout the war years.

PARAPUP is the semi-official description of this U.S.-owned terrier which was parachuted into France by a U.S. Air Force glider, under impressive harness attachments. U.S. Air Force. U.S. Official

PARAPUP is the semi-official description of this U.S.-owned terrier which was parachuted into France by a U.S. Air Force glider, under impressive harness attachments. U.S. Air Force. U.S. Official
Pulling Their Weight in Support of the Troops

Elephants made a name for themselves in the Burma campaign, chiefly as transport: attached to the British 36th Division in the north, some of them are seen preparing to cross the wide Shweli River (1). Contrast in war-transport is provided at this air base (2) near Karachi, India, where a camel-drawn vehicle and a U.S. plane. Howitzers were hauled long distances on mountainous stretches of the Burma Road by sure-footed mule-train (3) mounted by Chinese.

PAGE 488
Mourning the Fallen of Two Wars We Asked—

AT THE FIELD OF REMEMBRANCE outside Westminster Abbey, on November 11, 1946, anniversary of the 1918 Armistice, the bereaved inspected the wooden crosses (1) in memory of the dead of two wars. In Whitehall, queues filed past the wreath-bedecked Cenotaph (2). Far from city crowds, at Sheppe in Surrey (3), villagers and Services joined in the simple service at the memorial. In the British cemetery at Menin, Belgium, a lone bugler (4) sounded the Last Post. PAGE 490. Photos, B.P.A., Keystone.
**Now It Can Be Told!**

**SHELL THAT 'THINKS' BEAT THE FLYING BOMB**

This wartime-secret British invention not only beat the V1 but saved the British fleets in the Far East from serious loss when the Japs threw in suicide bombers. The "brain" of the shell is a fuse, a tiny radio set—transmitter, receiver and aerial all combined—in the nose of the shell (see diagram). A heavy 65-mm. shell has always been fitted with a fuse intended to explode it close to the target aircraft. The clockwork fuse, used at the beginning of the war, was set before firing to go off at a given moment, when it was predicted the shell would be close to its target. Frequently, the shell burst short or passed close to the aircraft and exploded harmlessly farther on.

The radio proximity fuse has changed all that: if the shell passes within a certain distance of the aircraft it will explode, and that will be the end of the aircraft. The story of this device was until recently one of the most closely guarded secrets of the war.

The earliest researches were conducted in Government Experimental Establishments in the United Kingdom. Our ideas were freely passed to the United States in 1940. Development continued on both sides of the Atlantic, but the production facilities of the U.S.A. naturally enabled them to allocate far greater effort to the undertaking; and the fuses actually used in the war were all of American design and manufacture.

The idea of a radio proximity fuse is attributed to Mr. W. A. S. Besteman (designer of the "C.H.L." radar set), whose first statement of the possibilities was discussed at a meeting at Fort Halstead in May 1940 under the chairmanship of Dr. Crow (later Sir Alwyn Crow, of Rocket fame). The idea of the true proximity fuse as it is now understood was suggested simultaneously a few days later by Besteman and Mr. E. S. Shire. The original patent application is filed in the names of Besteman, Shire, and A. F. H. Thomson, who (as was Shire) was one of Besteman's research team at Christchurch.

The driving force behind the early investigations was Professor J. D. Cockcroft, subsequently to become more famous as one of the scientists prominent in the development of the atomic bomb.

**Swift Shock for the Radio Valves**

Before any work could be done, it was essential to ascertain whether radio valves could be designed so that they would withstand the enormous acceleration—up to twenty times that of gravity—of a shell when fired. Experiments by Professor Cockcroft at Cambridge decided this point, and Dr. F. A. Vick, one of Cockcroft's staff, contributed much to the planning of the work. Then came the Tizard Mission to the U.S.A. in August 1940, during which radar information was passed to our American friends. The radio proximity fuse was discussed at the same time—the Americans had already been working on proximity fuses of other types—and enthusiastically taken up.

Preliminary experiments in Britain continued into 1941. Serious development began in September of that year, in collaboration with certain of the great commercial radio organizations. Effort was at first devoted to a "radio operated fuse" which should be detonated from the ground, and considerable success was achieved.

However, the investigations of Professor C. D. Ellis (now Sir Charles Ellis, Scientific Adviser to the Army Council) in early 1942 showed that the gain in efficiency of the radio-operated fuse over the normal mechanical type would not be sufficient to justify its use, and all effort was concentrated on a true "proximity fuse" which should cause the shell to explode when it came within a certain distance of the target aircraft.

All this work was done at a secret Ministry of Supply Establishment (R.R.D.E., now at BRITISH AND U.S. WARSHIPS WORKED TOGETHER on many important joint missions. From under one of the 16-in. guns of the Royal Navy's 35,000-ton battleship Duke of York are seen two of America's largest battleships—the U.S.S. South Dakota (nearest camera) and Alabama (launched 1943), both 35,000-tonners of the Washington class. The photograph was taken during an unchallenged operation in June 1943, when naval units of the two great Ford•••• were being used as one force to patrol Northern waters and cover convoy movements, turning the tide of victory against both U-boat and U-boat in the Battle of the Atlantic. PAGE 492

Photo, British Official.
It was agreed that first priority should go to the development of aircraft radar, and in the autumn of 1943 Thomson carried out a series of trials with American fuses under the Admiralty auspices. So successful were those trials that those fuses went into operational use in the British Navy towards the end of 1943. Finally, there came the Battle of the Flying Bomb. The use of proximity fuses against such weapons was discussed by the Watson-Watt Mission to the U.S.A. in the winter of 1941, because their use by the enemy was expected, and recommendations were promptly made to the British War Office.

These recommendations were strongly supported by Gen. Sir Frederick Pile (then G.O.C.-in-C., A.A. Command), and the fuses duly arrived and were used with spectacular success. In fact, the sudden startling increase in efficiency of shooting down the flying bomb (in August 1944) was almost entirely due to the use of these fuses. The fuses were known by the Army as “Bosun,” but most of the anti-aircraft gunners had no idea of the secret weapon they were actually firing.

CIVILIAN SCIENTISTS FLEW IN AIR-FIGHTERS

The scientists of R.A.F. Fighter Command’s Operational Research Section, attached as technical advisers to the Commander-in-Chief, were able to do some particularly valuable work concerning the best fighter use of radar by virtue of their front line experiments. When Britain’s secret airborne interception apparatus, the miraculous radar “Luftwaffe fighter” was produced in late 1940, the results were somewhat disappointing. Certain R.A.F. aces were able to achieve excellent results. But other flying crews found themselves in difficulties with the complex equipment. The civilian scientists, who had already done much experimental work leading up to the evolution of the equipment, were called in to investigate.

They accordingly took the place of Service radar operators on many operational flights, and even flew with some of the aces to observe the way they obtained results. Their experiments, a number of which brought them into actual air combat with Nazi raiders, resulted in the production of an “elementary textbook” on the use of airborne radar, which standardized procedure and increased results. They also started a school (see page 476) at which aircrew were taught the most effective use of radar equipment, and best tactics to obtain maximum results with it.

Manoeuvring for a Certain Kill

From then on, as new and improved radar sets for use in aircraft were produced, they were first handed over to civilians for air-testing under actual operational conditions. The scientists made the tests, produced their simple instruction books, and the efficiency of our night fighter force steadily increased. In another and rather similar field, Fighter Command’s scientists co-operated with other scientists to man Britain’s first radar station “G.C.L.F.,” and evolved the best system for working it.

The system—“ground controlled interception”—involved a complicated plotting of our own fighters and enemy raiders, a concentration upon necessitating the fighters to maintain the best position for a kill. So well did the scientists do their job that within a very short time of their handing over the station to the R.A.F., the first enemy raider had been destroyed by this system. Numerous experimental flights were made by scientists to perfect it.

Among many other front-line tasks undertaken by them have been operational flights to observe at first-hand the effect of Nazi attempts to jam our aircraft’s radio links with base and radio navigational aids. One of the scientists lost his life on a flight of this nature, during the Arakan operations.

Experimental flights in connexion with the laying of aerial mines and on anti-flying bomb patrols to determine whether airborne aids could be applied towards increasing the R.A.F.’s toll of the airborne war was among their other duties. Their work was of great value to the night fighter force, which had found difficulty in estimating the speed and range of the flying bombs, purely from the deceptive light of their jet. They were also able to suggest fighter tactics for attacking the flying bombs with maximum effect and minimum damage to our aircraft.
If Epidemics Cross the Channel this Winter

Field-Marshal Montgomery's present and greatest problem is the battle against disease on the Continent—pestilence and plague which may reach Britain and find us unprepared. For, in the last 100 years, more men and women of the right kind must be attracted, without delay, to the nursing profession. How that is to be done is outlined in this article specially written for "The War Illustrated" by FRANK ILLINGWORTH partly from an interview with Mr. Aneurin Bevan.

Every thousand men and women wearing the Red Cross emblem are wondering where their future lies. From El Alamein to the Elbe they drooped from the skies with stretchers and crawled from crater to crater with plasma and penicillin through the belt of battle, while all along the line through forward dressing-stations other wringing hands kept the flood of wounded flowing towards the base hospitals.

Many trained in first-aid and hospital work were killed. Many more travelled the same road as those they set out to succour. But the flow of maimed and sick was maintained.

In the grim school of reality these men and women fought gangrene and bodeic plague, pneumonia and all the other ills common to peace no less than to war. And now the war is over the demand for nursing staffs is more marked than at any time since 1939.

Leaving across a wide mahogany table at the Ministry of Health, Whitehall, Mr. Aneurin Bevan said to me recently, "There'll be pestilence and plague on the Continent this winter, and if the epidemics cross the Channel, well, our hospitals are going to need, in addition to your nurses, more nurses still!" Mr. Bevan's slight vocal hesitancy did not rob this statement of any of its significance. Thirty-four thousand nurses short, and disease on the rampart just past the water!

The First Great War saw Serbian troops carry into what we know now as Yugoslavia a typhus epidemic that killed tens of thousands; returning troops brought dangerous diseases to Britain, and not even our nurses could reach the peak of influenza epidemic in the bud.

Conditions are infinitely more dangerous today. Field-Marshal Montgomery has made it plain that the battle against disease is his greatest problem. Already typhus, cholera, influenza, diphtheria and other diseases have a firm hold on the Continent; and returning soldiers could easily bring any of them to Britain.

"Two thousand nurses are to be released immediately from the Forces, on condition that they return to civil nursing," Mr. Bevan said. "They'll help to bring into operation wards and hospitals and sanatoria which have been closed through lack of nursing staffs. But those 2,000 trained nurses will go only a little way towards answering the demand, even if this country is fortunate enough to escape serious epidemics.

Great New Charter for Nurses

We face a situation that has long been anticipated. It is part of the problem of switching from war to peace. But it will not be solved with the defeat of world epidemics. "People are more prone to go to hospital for petty ailments than before the war," Mr. Bevan declared. And many women are showing a tendency to have their babies in hospital, at a time when we want more staff to deal with disease threats and to answer the demands of the new Health schemes now being planned.

How are we to answer this demand? By making our hospital work more attractive. This is exactly the aim of a new Charter for Nurses, a Charter calculated to revolutionize the nursing profession as the switch from war to peace progresses. But, it will take years for the probationers of 1946 to become trained nurses, and this is where the nursing staffs in the Forces enter the picture.

By far the greater proportion of the previously mentioned 30,000 are still hard at work in Service hospitals all over the globe. Their time for release is coming; and if many will be glad to see the end of hospital wards, be they aboard ship or on land, the reports of Service welfare officers suggest that large numbers of men and women who were mechanics or stenographers (or still at school) in 1939 have not only become proficient nurses and ward sisters, but would like to take up civil nursing—but for the sacrifices it demands.

The new Nurses' Charter is designed partly to banish the system that saw the number of new probationers fall off year by year. Four schools in hospital during recent years have given me the opportunity of studying prevailing conditions at first hand. Many hospitals are run on the best lines. But there is no uniformity of rules—in some, junior nurses are less nurses than domestics, in many the nurses' food was appallingly bad and the hours were monotonically long even from before the war. The pay has long continued to be inadequate.

"It's not good enough to have an 'urge' to nurse," Mr. Bevan said. "You must offer good conditions of work to attract men and women to the nursing profession." To Service men and women no less than to the schools. But to tidy up her first job, it will be good news that the switch from war to peacetime has led on a unanimous agreement between all the hospital and nursing organizations, local authorities and trades unions, to give the nurse a New Deal.

To Cover the Danger Period

From early in 1946 salaries are to be raised considerably. The fully trained staff nurse will begin at £135 a year and ultimately reach £180, and the ward sister will begin at £180 a year and reach £250. A new 40-weeks' holiday is announced. The new Nurses' Charter besides the conventional rules known in some hospitals by introducing late passes and social amenities.

Health, no less than happiness, is catered for. The former includes separate bedrooms for nurses, adequate sleep, and a certain standard of food. And Nurses' Representative Councils set up in every hospital and backed by the authorities are already working to enforce the amenities agreed upon by the various nursing allied organizations.

But there are more people in hospital today than in 1939. In Turkey, from beds occupied through an increase of 170,000 births per annum since 1940; and the immediate demand born in the threat of nationwide epidemics is such that releases from the Services must be undertaken by a part-time nursing "division."

Thirty-four thousand nurses short! To cover the danger period while this gap is being narrowed down, a National Reserve of Nurses (as distinct from the existing Civil Nursing Reserve) is to be formed from women who have given up nursing for one or another reason. The change-over from war to peace in the sphere of hospitals, sanatoria and mental institutions will be slow. With tens of thousands of wounded still to be put on the police, and at present demands for nursing personnel will remain marked for two or more years, the Charter will undoubtedly prompt many Service men and women to put their wartime hospital training to good purpose in the years of peace to come.

TYPICAL OF OUR HOSPITAL SERVICES, these nurses at the Middlesex Hospital, London, on November 15, 1945. It is in the interests of extending efficiency during the previous year. They were awarded the Hospital's gold, silver and bronze medal respectively.

PAGE 494
Surcease
Twelve Prison
Camp and
Cleve Street

To help returned prisoners of
time forget their dreadful experi-
ences and fit themselves again
for normal civilian life—a
"jump" which many would
find it difficult to take unaided—
is the concern of Civil Resettle-
ment Units. Thro' the Army
authorities, in co-operation with
the Ministry of Labour and
various voluntary organizations,
have opened all over the coun-
try. Each establishment takes ap-
proximately 250 men at a time.
Workshops are equipped for
those who would revive their
skill at a trade or learn the foun-
dations of a new career. Film
shows, dances, concerts, games
and physical exercises provide a
happy and well-filled social life.

One such unit is established at
Hatfield House, Hertfordshire,
built in 1600. In the magnificent
banqueting hall (above) the men
gather to read and talk and also
to sleep; over the mantelpiece is
an imposing figure of King James
the First, whose home it once
was. The rear entrance to Hat-
field House is seen on the right.
Wounded Are Helped on the Road to Recovery

Among the most important of the Rehabilitation Units designed to assist, by occupational therapy, the speedy recovery of casualties is that at Forder Field Emergency Hospital, Wakefield, Yorkshire, part of the Ministry of Health service. Remedial exercises under skilled supervision restore weak muscles and stiff joints before wounds have completely healed. With a smile this patient (1) watches his plaster cast removed and his leg set free for movement. In the gymnasium (2).

By Curative Treatment Engaging the Mind

Use of home to make casts and rugs is included in popular forms of occupational therapy. In this instance (3) the patient, with a weak right shoulder, has that arm supported in a sling. Weight and pulley exercises (4) help the thigh muscles. Here (5) they move their injured limbs to music. Muscles of his wounded arm (6) had contracted, so that he could not straighten his fingers; with the arm in a cast he is learning to make them "work," inducing the steady return of strength.
Injuries Forgotten in the Exercise of Skill

Some 37,000 patients (including civilians) have been admitted to the Pinder Fields Hospital; nearly 6,000 Service cases were received direct from the various battle-fronts. Remedial measures combined with amusement include the painting of lamp-shades (top left). A bullet wound caused paralysis in some of the right-arm muscles; he is using and keeping in good condition the sound ones by making a rug (top right). Toy (left) and basket making (right) enter into the treatment.
It is an appalling thought that nations can be changed, as the Germans were by two wars and Hitler. Or not so much changed as cowed into submission by ruffians posturing as supermen, and persuaded or forced to acquire dynamite to whatever brutalities and atrocities those ruffians commenced. The Italians acquiesced in Mussolini's lunatic proceedings, but they were not really changed. Life went on in Italy much as it had done before Fascism took charge.

The Italians sat down under it; as they sat down to make any protest, let alone try to upset Hitlerism. They must have known enough about the horrible methods of the Gestapo to denounce them, if they had dared; now they pretend that they never heard of these abominations. Again they are dominated by fear—not of their Nazi oppressors but of their conquerors.

"We are being led," says Alan Moorehead in his new book, Eclipse (Hamish Hamilton, 12s. 6d.), and he adds, "We are not led by force; we are only being led, but of defeat. I believe such an expectation was entertained by the people. They did not feel like that in 1918. They were not "morally defeated," as Moorehead found them when he went as a correspondent into Germany with the invading force. They had no reason to feel ashamed after the First Great War. The Second made them feel they had sinned so deeply against human decency that they could not look to be treated by the victors in anything but the same savage, devilish way.

Of course they were not so treated, and now they have perked up and talked about the wicked Nazis who deceived them and perpetrated outrages about which they knew nothing. As if it were possible for what went on in internment and prisoner-of-war camps to be kept secret! Why, the Gestapo didn't want it to be secret. They had armed everybody to be scared into more and more complete submission. It was the Gestapo, says Moorehead, which created the Allied loathing for everything German. The anger and hatred they inspired. Our men did not hate their opposite numbers.

After the fight was over the reaction of the average German prisoners was their pride. They agreed that they had in a sense been deceived. "Well, the poor dumb beasts, they certainly bought it. They've had it." And he would hand out his cigarettes.

But as the atrocities of the Gestapo became known, not from hearsay but from first-hand evidence—"rooms where civilians had been tortured, the courtyards where firing squads operated, the houses looted and bodies lying about"—it alarmed the Germans.

The old feeling "We have got to fight for liberty and honour and all the rest of it" was replaced for short intervals by the more animal reaction that demanded revenge.

Woudn't it be more accurate to say "demanded justice"? And does not justice demand that all who took part in Gestapo terror pay in their own flesh and blood for their offences against humanity with their lives? Most of them know what they deserve. They don't ask for mercy. Generals weep when they are ordered to surrender. Moorehead gives several instances of this. But the filthy instruments of the Secret State Police (which is what the Gestapo once was) brazen it out.

There is a good deal of brag and bluster still among the Hitler Youth, boys and girls, who seem to think they are eighteen, up to their ears in the scum of the world and shit-scum up to their knees in it. They are not as gullible as the young people of 1914. They are not as gullible as the people of 1871.

But at the same time, strangely enough, "pornography went hand in hand with a superstitious revival of religion. Many of the youths carried printed prayers and rosaries about with them. It was a lucky favourite which they grabbed at their pleasures and then suddenly, in a fit of depression and remorse, turned to religion for support and forgiveness." Moorehead wondered what hope there could be for a nation with a living generation like that.

Becof Gestapo Became Paramount

Yet he has to admit that German efficiency that Gestapo that para-dife efficiency that Gestapo that could be the Continent that the Occupation might in the end turn out to be a good thing. Europe had been unmentionable for so long. That was the main thing, the thing that seemed itself on people's minds. They found they could live fairly normal, com-weighted under Nazi rule. As early as 1942 three-quarters of the Allied propaganda about starving Europe under the Nazi boot was nonsense. Europe was actually quite. The Germans supported the local systems of government and law. They kept the railways working and they got the food and coal distributed. They did not interfere unduly with the village life. That was before the Gestapo became paramount.

This is a view I do not remember to have seen in print before. It is probably sound, though it applies more to the countryside than to the cities. For that efficiency can be directed into wholesome channels, it may save Germany from utter collapse. They must be told what to do—by their own people; and they will do it. Moorehead thinks "the German soldiers were a good deal better disciplined than ours. They did their best and destroy the war in the same way. With them everything was method." If they were ordered to carry out "a cruel, hard, cold, organized official beating-down of the peoples they conquered," they behaved so. When the order was "Behave decently," they did.

The book illustrates the difference between British and German methods by the story of a traitorous henchman in which his men threw hand-grenades to kill the fish, while officers fired into the water with their revolvers. The Germans in charge had offered to net as many as they wanted, but they would not wait. For every one they pulled out they destroyed hundreds others and made them Measurable. Now, if the roles had been reversed, says Moorehead, the Gestapo would have been carefully netted, but the manager would have been arrested, his house burned, and his family exiled. If the discipline, the methodical habits, the organization and Germany will change into a small agricultural state, owning no great industries, having no power to meet the vast machinery necessary for a modern war—a thing that did not happen to her last time.

However, Moorehead admits that "it might be a good thing to be vigilant in the future. I don't think "might be" is nearly strong enough.

One thing the Germans ought to be taught is that they ought not to go scoundrel but a fool. I cannot understand Moorehead's statement that "the majority of Hitler's decisions throughout the war were remarkably sound." I should have said that they were all nonsense, even very well. The greatest of all was not drawing back his armies into the inner fortresses—Germany itself—as soon as it was clear to his military advisers that there would be a successful invasion of Europe. We must be very thankful the conduct of the war was not left to them.

Not that they were equal, man to man, to our supreme military leaders. Rommel has never yet to go to Monty. The secrets of Monty's brilliance were, first, that he always insisted on superiority in numbers and armament before he struck; and second, that he made all his soldiers feel he would stand and destroy the war in the same way. With them everything was method." If they were ordered to carry out "a cruel, hard, cold, organized official beating-down of the peoples they conquered," they behaved so. When the order was "Behave decently," they did. But you don't know where I am going. I may go home on leave. Roars of laughter and applause. He used the usual tricks in other speeches—with similar results.
Secrets of Britain's Wartime Nerve Centre—

Our war cabinet's bomb-proof HQ. It was revealed in November 1942, was 70 ft. below Government buildings in Whitehall, so strongly reinforced that it is doubtful if even an atomic blast could affect it. As Deputy Prime Minister Mr. Attlee occupied this bedroom (1). Through a slit in the thick walls an underground (2) off-shoot chamber admitted air. The sealed (3), Breco safe (4) housed secret documents. A schedule of alarm-signals was prominently displayed (5).
OUR CAMPAIGNS IN THREE CONTINENTS. were directed from the underground Cabinet War Room (top). Britain's nerve-centre from 1939 to 1945; the round-backed chair on the left was Mr. Churchill's. Hung with wall-maps showing important changes hour by hour was the Premier's suite of three occupied by him and his family—in which he worked and slept; from the big mahogany desk the Prime Minister made most of his famous war broadcasts.
R.A.F. 'Week-End' Pilots Go Back to Peace

On July 20, 1945, just before the fifth anniversary of the start of the Battle of Britain, in which the R.A.F.'s 'week-end' pilots won their greatest triumph, the Air Ministry announced that the squadrons of the Auxiliary Air Force were to revert to their peacetime status. Specially written for "The War Illustrated," this article recalls some of their outstanding achievements.

I
n the annals of the R.A.F. there are no more stirring records than those of the County and City squadrons of the Auxiliary Air Force, whose members gave up most of their spare time in the days of peace to train for the great air war they felt sure would one day break.

When the call came they exchanged their city clothes and sports jackets for flying kit and left the club-rooms of the airfields where they had learned to fill their crest (and where they had been in the habit of carefully arranging their take-offs and landings so as not to disturb the Sunday morning service at the local church) to fly out to do battle with Goering's professional killers.

Today the pages of their record books are rich with the chronicles of their victories. They fought over the beaches of Dunkirk; they stood firm with the rest of the Few when Britain was assailed by the mighty Luftwaffe; they helped to carry the war across the Channel to France when the sweeps began; they defended Malta; they won victory in the African skies, in Italy, and in the final battle for Europe's liberation.

First Blood to the Auxiliaries

Long before most of our regular home-based fighter squadrons had even seen a German aircraft, the Auxiliaries had opened their score by shooting down three Heinkels in the first German raid on the Firth of Forth on October 16, 1939. To the City of Edinburgh and City of Glasgow Squadrons, Air Chief Marshal Dowding, A.O.C.-in-C. Fighter Command, signalled: "Well done; first blood to the Auxiliaries." There was no stopping them after that. They continued to take a steady toll of the sneak raiders who circled the North Sea in what that first spring of war to bomb and gun defenceless fishing-boats and men at Britain's harbour mouths.

The Auxiliaries saw the first Battle of France from both sides of the Channel. A.A.E. Hurst and Bissex roused the Continent to join the Air Component, and both they and their English-based comrades helped to fight off the swarms of dive-bombers which pounded the B.E.F. on their way home from Dunkirk. Then came the Battle of Britain. The Auxiliaries in the Midlands and the North moved South for the shooting season. They did not know it then, but they carried the fate of Britain and the whole civilized world in their hands. There was no easy introduction to air combat; some of them took up their new battle stations in the morning and by the afternoon were in the thick of the fighting.

Exactly how many German bombers and fighters fell to the guns of their Spitfires and Hurricanes has not been disclosed, but it is estimated that one in every three of Goering's raiders which tumbled out of the skies was shot down by an Auxiliary airman. Squadrons increased their scores by anything up to fifteen a day; pilots became veterans in a few weeks. But they had their casualties, too— the ranks of the Auxiliaries became thinner as the desperate struggle went on into September and October.

Like their colleagues in the regular R.A.F. squadrons, the Auxiliaries fought and died anonymously. It was the policy of the Air Ministry not to build up "aces." Even today their names are little known outside the Service, except for a few like A. V. R. Johnson (see illus. p. 559, Vol. 3), Max Aitken (see illus. p. 391, Vol. 3), George Denholm and Whitney Straight, all of whom have reached battle rank in the R.A.F. Air Force.

After the daily battles came the struggle by night, and once again the Auxiliaries played a leading part. Londoners of Numbers 604 (County of Middlesex) and 600 (City of London) Squadrons searched the darkness in their twin-engined fighters for Heinkels and Dorniers, while cities burned beneath them. Under a succession of brilliant A.A.F. commanders, of whom Group Captain John Cunningham, D.F.C. (see illus. p. 246, Vol. 4), is the best known, the Middlesex Squadron, after many difficulties, mastered the science of fighting blind and became the acknowledged authorities on night interception.

Within a few months they had 50 or more kills to their credit in this field of operation.

By this time, however, the Auxiliary squadrons—particularly the day fighter squadrons, who had suffered heavier casualties—were losing much of their "amatuer" status. Regular airmen had to be drafted to fill the places of those lost in combat, and soon the little metal "B" on their pilot's tunic was seen less frequently. However, mainly through the ground crews, the ties with City and County were retained. There are scores of non-commissioned airmen of the Auxiliary Air Force who have serviced their squadron's aircraft for five years in many theatres of war.

Div-Bombed the V2 Rocket Sites

Number 601 (County of London), for instance, took the winged sword of the capital to Malta in 1942 to fight in the defence of George Cross Island. The City of Edinburgh Squadron were there, too, and later operated in the Western Desert. The City of London also made a successful Mediterranean tour, and celebrated their 100th victory in Italy.

The two Scottish squadrons came together again last year and ended the war in Britain as the only two squadron fighting side by side. This time their targets were not Heinkels and Dorniers, which they had hunted together in the early days, but the V2 rocket installations in Holland which they dive-bombed in their Spitfires, often in face of intense anti-aircraft fire. They were defending London all over again, and the capital's ordeal would have been worse but for their skill and courage.

Most of the Auxiliary pilots who fought in the early campaigns are now found in staff offices and commanding stations and sectors. Many are gold-braided, proving that their nerves were not made with their operational flying career. In R.A.F. messes all over the world the deeds of the Auxiliary airmen were being recalled as the squadrons went back to their peacetime flying, and the Auxiliaries themselves honoured the memories of fallen comrades.

Those who flew over Kent and Sussex five years ago have probably been thinking of one man, whose combat record eclipsed all others—Andrew McCallum, a Scotsman, who took part in the Forth Bridge attack "A" and later led the County of Warwick Squadron in the deatgh struggle over South-East England. He was killed in action in the last days of the Battle, but not without shooting down no fewer than 18 raiders.

608 SQUADRON (City of London), some of whose pilots have now been posted in the Far East to press about the tail of a Hurricane, was among the most gallant of our Auxiliary Air Force, with 30 D.F.C. and over 100 enemy aircraft in its credit. These proved "week-end" pilots who trained in their own time spent their ranks back clerks, bus conductors and students.

Photo, British official PAGE 902
First Raid on Britain as Seen by the Luftwaffe

German Airmen Saw the Firth of Forth Like This when they first raided Britain, on October 16, 1939, causing casualties to H.M.S. Mohawk and other warships. Dark patches in the photograph (taken from a Nazi bomber and now in R.A.F. hands) indicate where bombs fell; close to the centre plot of the famous Forth Bridge is Loch Navigation Island. Participating in the shooting-down of four of the twelve or fourteen raiders were R.A.F. Auxiliary pilots. See facing page; also illus. page 297, Vol. 1.
Now 63 Hours Only on Bournemouth-Sydney Run

THE ENGLAND-AUSTRALIA AIR SERVICE, jointly operated by British Overseas Airways Corporation and Qantas Empire Airways, opened on May 31, 1945, and completed its hundredth flight on November 4, when a Lancaster (above) touched down at Hurst, near Bournemouth. It had flown the 17,790 miles from Sydney in just over 63 hours, in accordance with schedule. These Lancastrians, modifications of the Lancaster bomber, have cut hours and days off famous record flights by other aircraft, (right). They carry a crew of five and six priority passengers (below). See also illus. page 482.


ENGLAND TO AUSTRALIA BY AIR

| 1115 Sir Alex and Sir Keith Smith | 25 days 59 hours |
| 1229 Kent Bomber | 15 days |
| 1018 Sir C. Kingsford Smith | 16 days |
| 1115 E. A. Butler | 8 days 5 hours 27 mins |
| 1125 C. F. A. Smith | 8 days 20 hours 44 mins |
| 1025 Sir C. Kingsford Smith | 7 days 12 hours 2 mins |
| 1125 E. A. Butler and T. Canty Brock | 8 days 33 hours 48 mins |

1214 Early Advance Route 43 mins 99 mins

1214 Early Route London to Hong Kong

1240 Regular Service 2 days 15 hours
I Was There!
Eye Witness Stories of the War and After
I Was in Surabaya When the Shooting Began

This story is pure melodrama—but it happened... Liberty Hotel in Surabaya was comfortable. The beer was magnificent and the food was good. We asked ourselves what all the talk was about. Why should there be trouble? In the evening of our second day ashore the shooting started. At first it was distant, then suddenly it was outside. Our Indian guards dropped quietly behind the low wall in front of the hotel. They had a Bren gun and a two-in-one mortar.

We dined to the music of occasional shots. Then we stuffed Mills bombs into our pockets, turned the pistol holster back and joined the Indian guards. In the distance grenades were exploding, Brens and Indonesian machine-guns were chattering. The whole town seemed to be fighting. Our radio was tuned to the Army transmitters, and back in an empty room a loudspeaker was telling how the battle was going on elsewhere. The news was disquieting. Isolated companies were surrounded. The Brigade HQ were encircled and fighting desperately.

At 5.30 the next morning the Indonesians attacked us. One of our Indians was seriously wounded by fire from across the street. Two sergeants of an Army film unit took cover behind the hotel wall and began busy. Dutch money in a flower bed. It meant death to be captured with these notes.

An Australian major was the senior officer. Our force consisted of 90 Indian troops, a British and two Indian Army public relations officers, and a dozen other assorted Allies. There were also four women with children. A four-hour battle started.

I remember bullets hitting the plaster. Our wounded waited patiently. Indonesians were shouting in bad English, "Come down, come down." Anton, the Indonesian kitchen manager, was crouching behind an upturned table parleying for us in an hysterical voice. Then the Australian major walked down the hotel stairs with my white handkerchief to make terms, while the crowd clamoured round to kill us.

They drove us in open tracks through turbulent streets. Rifles swung at us, mobs crowded about us at barricades with knives and spears. At Kedissok gate they searched us. We were locked in our cells. Educated Indonesians came to our rescue. A leader of the Antara Press Agency went to Dr. Sockarno, the Indonesians' 'President' and said: "Free them. Give them police guards."

We were smuggled out in closed cars with guards on the running boards. We were driven at midnight to the palace of the Governor of East Java. He fed us and said he was sorry we had been "in trouble." We slept fitfully in an hotel with guards outside. Then at breakfast the crowd found us, and the guards lost control of the situation.

We Cheered at London's First Peace Pageant

With all the old enthusiasm, intensified by the bleakness of later years, Londoners turned out in thousands on November 11, 1945, to greet the Lord Mayor elect, Sir Charles Davis, as he went by on his historic journey from the Guildhall to the Law Courts. Impressions of this year’s show, from The London Evening News, are by Leslie Ayre. See illus. in page 536.

To many of us the shadow of St. Paul's seemed a good place as any from which to watch the Show. And a magnificent procession it was—on which the young and the not-so-young all had their place—which wound its way, brave and colourful, against the background of the war-battered City. It was a nostalgic thrill for many. But to the little blonde girl, waving her streamers, and her schoolboy companion, all was new, all exciting. So it was, too, to the American and other Allied soldiers who jostled cheerily with us.

Crowds of students, shouting and cheering as they marched round the side streets, helped to amuse us during the cold, wet day. Then came the joyful cloudburst of the bells. The cheering swelled and mingled with the clatter of military bands. And round the bend into St. Paul's Churchyard came the white helmets and gleaming long bayonets of "His Majesty's Jolies"—the Royal Marines.

The American sergeant beside me was busy with his camera as they swung by. "Swell!" seemed to be the best description he could find. The blue of the Marines gave place to the khaki of the Grenadier Guards band, followed by a contingent of the regiment, this time fixing the newer short bayonets.

Then the Buffs (Royal East Kent Regiment), wearing khaki berets, with their band, and on their heels the band and a contingent of the Royal Fusiliers (City of London Regiment). And then the Honourable Artillery Company. For the first time in history we had seen a joint march through London of all the five regiments privileged to go through the City with drums beating, colours flying and bare bayonets.

But we were to see the fixed bayonets of the Royal Navy and Royal Air Force too. And now the women marched by—and none drew greater cheers. At the head of the A.T.S. Pipe Band strode their kilted, white-gloved drum major, bravely whirling her silver-topped staff. Behind him the W.A.A.F. Band, followed by contingents of Wrens, A.T.S., and W.R.T.

Still more marching women, this time the Voluntary Aid Detachments of the British Red Cross and St. John's Ambulance. There were grey hairs among some of these women who had played their own special part in the war years.

More stirring martial music as the Band of the Coldstream Guards swung by. Away down Ludgate Hill into Fleet Street we could see showers of "ticker-tape" and streamers cascading down on the procession. It was a merry barrage for the new Lord Mayor.
When the Dead of Two Wars Were 'Remembered'

The Two Minutes Silence, the first Armistice Day ceremony at Whitehall since 1918, made November 11, 1945, a date specially memorable in the minds of many whose feelings were irrepressible. The thoughts of one who stood on a roof-top opposite London's Cenotaph are in the Daily Express story by James Cameron. (See also illustrations in pages 490 and 491.)

It seemed for a moment at 11 a.m. that this was the first space of silence, the first relief of utter quiet our restless city had known for seven years. When the gun abruptly barked in the Horse Guards' Parade and that extraordinary, unmistakable hush spread over London like a pool, one realized how nearly one had come to forgetting what stillness meant.

The year 1938, that was the last time we had been here. Not in all that time had there been, nor could have been, all this lustrous ceremonial, bright and sombre, gay and grieving, this traditional moment which had, we must face it, become rather a wry and mocking thing by 1938.

I stood on my patch of roof opposite the Cenotaph in the biting, sunny wind, watching the thudding bands, the rhythm of moving uniform, the old-fashioned gait of silk hats held in the hand, and thought how long ago was 1938. Nothing had changed, except the world around. This, then, was the first memorial for the Twenty-Seven Years' War.

The sense of tradition, or habit, or continuity, whichever it may be, was made inevitable. I suppose, that November 11 should be the day, and that once again the crowds of people fanning into Whitehall should be filled with the red of poppies. Were there poppies on the fields of Arnhem, or Longstop Hill?

That was the strange telescoping of time that brought things far apart into the compass of the same moment of memory—Armen- tiesis and Alamein, the Somme and Singapore, Flanders fields and the Falaise Gap. This was not the Armistice Day of the years between; this was different; if it meant anything at all it had to mean twice as much, or all that had happened in these last years was vain and unthinkable.

Along Whitehall, past the Horse Guards, as far as it was possible to see into Trafalgar Square, the people stood jammed from kerb to kerb. There may have been more in 1919, I would not know, but I cannot imagine so. They stood so closely that they became a unified entity, as a great crowd can be.

I am no better than most people at knowing what a man a hundred yards away is thinking. But when a stooping clerk with the Mount Star stands at the side of a boy with the D.F.C.—when a woman whose light went out in 1917 stands with a girl who thinks only of Dunkirk—what in human reason can they possibly feel?

I do not believe this has happened before in quite the same way; I hope that is the answer. One may know some day. The grace- ful stone that Lutyens raised in memory of the war that was to end all war was gradually
hemmed in by all the circumstance of the day. The band played, the troops snaked in—how extremely well this affair produced and stage-managed!—the clergy held their flapping surfboards up to them.

The Cabinet gathered in their black-and-white row; Mr. Morrison spoke to Mr. Churchill and rubbed his hands together in the cold wind. The King and Princess Elisabeth and their entourage took their place; the Queen and her companions watched from a Home Office window.

One found oneself wondering irrellevantly what the other Novembers since 1938 had seen, since they had not seen this. Last year? We were storming Walcheren. The year before we were crossing the Sangro; before that we were landing in North Africa; before that again we were groping in the ruins of Coventry. All those things, when there might have been no Armistice Day for us.

Then the hour struck and the maroon cracked, and Whitehall, and London, and Britain, and who knows how much of this weary world were left in silence with whatever private thoughts seemed best. Myself, I believe I thought of a little of the men not there, the statesmen tackling the atom bomb problem, whose work at that moment was probably of some particular importance to the whole sense of this day. Two minutes is not a very long time to think of the things that must be thought of.

Then the scarlet wreaths began to climb up the sides of the Cenotaph, the familiar procession of old and young, upright and limping, the ones who remember and the ones who do not yet remember, filed past the stone and became the crowd again. So we all went back and became the crowd again, out of the memory of war into what we now, rather doubtfully and desperately, call peace.

Four Nazi Flags Which Were to Fly Over London

Translated, these read: "North London," "South London," "West London," and "East London." The flags were those the Nazis intended to fly over the four chief centres of London, once Britain’s capital was occupied. And they were hidden away in the German Embassy in the heart of London long before the war.

Hanging on one of the walls of the Braseric I found a number of large maps of Britain. The North Sea was not the North Sea on those Nazi maps. It was the German Ocean. And Britain had been carefully divided up into a score or so of numbered areas. The Nazis were taking no chances with their private documents and papers when, with the coming of the day they had awaited, they would have to vacate the Embassy.

The burning of documents by fire was not certain enough for them. So they had installed a special electrical machine which tore documents and napkins into tiny, indestructible shreds. When I looked at the machine today it was stuffed with the shreds of the last document which the Nazis destroyed before they left the Embassy for good in September 1939.

A few yards away from the pillar bearing the Nazi flags is the Embassy’s enormous 25 ft. long conference table—a magnificent piece of furniture in highly polished mahogany. It was at this table that His Excellency Joachim von Ribbentrop planned with his Nazi associates.

Ticked away in a corner I found a fragment of Adolf Hitler. It must have been the German Embassy’s central showpiece.

== As The Years Went By==

**Notable Days in the War**

1939
November 30. Russia launched land, sea and air attacks on Poland; Helsinki bombed.

1941
November 28. Rastow retaken by Russians.
December 6. On Moscow front, Red Army opened big counter-offensive against Germans. Great Britain declared to be in state of war with Finland, Hungary and Rumania.

1942

1943
November 28. First meeting at Teheran (Persia) between Roosevelt Stalin and Churchill.
December 1. Eighth Army broke German "winter line" on Sangro River in Italy.

1944
By CAPTAIN NORMAN MACMILLAN
M.C., A.F.C.

Lieut. W. M. Crichton, the Air Staff Officer, showed me over the ship. Below the bridge were the Operations Room, and working in conjunction with it, the Aircraft Direction Room which controls fighters from ship to enemy aircraft by means of radios. The Briefing and Intelligence Rooms were combined to economic space. Bomber and fighter aircrews used one Readiness Room.

An automatic beacon emitted two letter signals at 360 degrees' intervals round the horizon; aircrafts knew the code and wavelength could pick them up to plot their course from one to another. In the Meteorological Office at the rear the still shuttered observer watched the weather charts to provide the ship with weather information.

The captain's cabin, under the flight deck opposite the island, where I left my flying kit, was a large, luxuriously furnished flat, more comfortable than in many a hospital. The lurching, buffeting, and comparative ruin of the delightful flat's in the Ark Royal.

The Battler, designed on merchant ship lines, was the first U.S.A. escort carrier to be handed over to the R.N. Commissioned on October 31, 1942, her executive and aircrews were performed by R.N. and R.N.V.R. personnel, while engineers of the Merchant Navy with R.N.R. ranks ran the machinery of the ship. The 18 knots class speed of these escort carriers in tail winds and with the Fleet, but courteous for their special functions of escorting convoys and serving as assault carriers. Their complement is about 400, with another 200 when fully operational with aircraft aboard. They operate Swordfish, Seafire, Hellcat and Avenger aircraft.

In the wardroom I met Lieut.-Commander J. Macdernott, a Cunard White Star officer, with purple insignia of the engineer between his two and a half transparent rings of gold lace, one of six still in the ship of the original Titanic, who took her place at Paschal, at sea. He was at Salerno, where in covering the landing the Battler lost all her 24 Seafires.

The wardroom was plainly equipped with American furniture. The anti-room looked like a shore cafe; there was a small bar in one corner, I said. Dining-room tables in parallel rows. Officers' cabins in a row, all uniformly arranged. The aircraft officer personnel is 50 to 100 per cent relatively greater than in a battleship or cruiser. The cabin I entered had two super-imposed bunks, drawers for clothes, a writing-desk and a chair. To wash and shave one went along to the toilet; being an American ship, showers took the place of the British personal immersion bath.

The ratings' mess had long tables and benches, and on one side a cafeteria with American articles—Camels and Lady Strike cigarettes, chewing gum, Ipam toothpaste, Coca-Cola and other soft drinks. Expected to find that this novelty would appeal, but one of the Petty Officers I spoke to said he would be glad to see British goods instead—perhaps nostalgia sentiment.

The galley was like a modern kitchen with electric cooking, no sink, nor sinks and boilers. The warship atmosphere was absent between decks. No hammers were slang in the passages. Ratings slept in beds that folded to give more room when not in use. I gathered they were not popular, because beds are easier to fall out of when the ship rolls.

I saw the workshop with lathes, a paint-room, carpenter's shop, boatswain's stores and laundry; a first-class operating theatre with sterilizers, X-ray, and a fixed operating table with operating lights; an excellently equipped surgery; and a comfort in the air of passenger comfort.

The machinery space occupied one section of the hull, wherein all the engine units were collected—the boilers, high and low pressure ones, connected to a single shaft, auxiliary plant driving dynamos, compressors and pumps. Steel ladders, catwalks and platforms, slippers with oil, were the means by which we reached every unit in this component of the hull.

A SIBESTOS-CLAD Fire-Fighters in Readiness With Extinguishers Two 4-in. high angle guns aft and two twin-Bofors guns fore and aft were the main armament. On various parts of the ship were two 3-inch guns and two 25-mm. guns with gyro sights. From the aft Bofors platform I watched some Seafires coming on—looking straight up at the belly of the fuselage a few feet above my head as they crossed the stern. From the bridge I watched some pupils ("smogs") landing on. The first Seafire made a good landing. The second was perilously near the port side. The third hit the deck aft of the first receiver cable, and fell into the air; the second struck the upper part of the under-carriage and was saved from going over the side when his pilot picked up one of the forward receiver cables. A fourth crashed because its deck-landing hook broke, and it was badly damaged by running into the crash barrier; petrol swelled over the deck. Acceptors-clf fire-fighters were ready, as usual, with fire-foam extinguishers; but there was no fire, and no one was hurt.

Due to their very blind forward vision when gliding slowly, the Seafire and Corsair ratings were to be transferred to the aircraft to land on. And a Seafire, with its finger-tip controls, is an easy aircraft to curve semi-stalled down to the flight deck. Pilots who deck-ify them deserve admiration.

When the call came for me to man air-crew, I went along, looking up the man thinking him for his courtesy, and walked down the pier and climbed into the central compartment in the Avengers whose 1,000 h.p. Cyclone engine was already ticking over, and closed the sliding roof side-ways over my head. A raucous hooting sounded as Worsfold moved the control to spread the wings, warning everyone to get out of the way as the wing swung forward automatically and locked into flying position. As he opened the throttle with the brakes on, another siren hooted to indicate that the under-carriage was locked down. The 14-cylinder cooled radial engine roared, and we were off.

The island" flashed past in a confused blur just beyond thestarboard wings-tip we spanned 54 of the 60-knots, with flight-deck—and then we were over the bow and in the air. It did not seem that we rose before reaching the end of the flight deck, but I was told that Worsfold's extension of deck flying, did not attempt to pull up until he was well clear of the ship. There was plenty of sea room to make the height of a flight deck in normal weather.

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SWORDFISH TORPEDO-BOMBER, part of the tail of which is seen in the foreground (1), has just taken off from the carrier H.M.S. Biter. The Biter (2), escort carrier visited by our Air Correspondent, is here seen from one of her aircraft. Deck Flying Control (3) is shown with a group of handamps. The Biter (4) as it appeared to a pilot about to land on. See facing page.

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Photo, British Official
HOPE REALIZED

Sept. 9, 1939

Looking at the first number of my old War Illustrated (1914-19) tonight, I find that H.G. Wells wrote a famous contribution to that publication, "This Prussian Imperialism has been for forty years an intolerable nuisance in the earth." And we thought we had ended it in 1918! But like the professor who was recently attacked and pursued by the head and upper part of a venomous snake, after three-fourths of its body had been severed, the bestial thing assails us again in the form of Nazi Imperialism. Germany, Prussianized or Nazified, is indeed an intolerable nuisance on the earth, and I hope to live to see the whole foul brood of Nazi warmongers in their graves or each in that Dorn whereon there is no return.

WELL, that hope at least has been fulfilled and in living to witness its fulfillment I have had some reward for the six years of discomfiture, anxiety and frustration which, in common with all who have not hitched their wagon to the star of Bureaucracy, I have had to endure. The "Doors" mentioned was a reference, now obscured by the astounding course of events, to the last retreat of the abominable warmonger who plunged the world into the first world-wide conflict of 1914-18. Holland's "neutrality" from which he profited by spending his inglorious years in selling trees before he was peacefully buried, was one of the first things which his Nazi successors swept away. Alas, poor Holland!

THE BOGIE MEN

Sept. 9, 1939

"Do you think we'll win?" I was asked last night by a young "litty gen" of the true Bloomsbury blend. "If we have many of your sort, I'd not be too sure," was my ready, if rude, reply. He didn't knock me down. That's the only instance of doubt I have registered so far, and if you saw the wacky propounder of the query you would not be surprised at his trend of thought. I have, however, met again a bogey man of yore.... famous author, too. He has written voluminously on European politics out of a plausible ignorance and talks always with a whispering "d'y know?" when unfolding his tale of terror. As nothing that he ever prophesied came to pass, I will not be so unsound to him as to mention the hair-raising horrors he foresees for those of us who carry on our jobs chiefly in central London's stream- ing roar... now reduced to the pleasant murmur of a cathedral city.

THE first of these persons unnamed has long ago redeemed himself; by pen and voice he has done service to the cause of the War, and his name, Mr. G. B. Goring, is now on the Tennysonian line about "more faith in virtue's dikes" instead of once more iniquitous. The other bogey man has been dead for years, possibly hastened to his lonely seat in sheer pessimism, a delight in debunking, and a lack of faith in his own countrysmen. Faith in victory is the first element of its achievement.

BRITISH QUALITIES

Sept. 9, 1939

Americans may be star performers. But I conceived a new admiration for my own people when I saw how they handled scores of thousands of children and mothers evacuated to a reception area near our own home. And when I arrived in a childless London, paying through continuous scenes of evacuation on its fourth day, I felt that I had witnessed an absolute triumph in which courage, confidence, and human effort were all compact.

AMERICA'S part at D-Day, 1944, gives point to my reflection at the beginning of the two years in which Britain stood alone except for those few dear allies so dear. "The Phoney War," when an impotent Belgium and a treacherous France were with her in arms. The British qualities I specified in my note endured all the way to V-Day. And still endure...

FUTILE PROPAGANDA

Sept. 16, 1939

A few days before the fateful September 1, I collected in my club reading-room about a dozen British newspapers and periodicals with large pictorial advertisements of the scenic attractions of Germany and invitations to visit her. "Camelot: the vision of the future," they advertised to the friends to whom I showed them. Camouflage they proved to be. The wretched prophecies of these treacherous rogues were lavishly pushing out these advertisements to suggest a peaceful playground for British tourists, the U-boats had already been a week or two on their way to their ocean stations with instructions to sink Allied ships at sight and "without trace" as soon as they got the word that war was "on." But at a future day Dr. Goebbels... if there is still a Dr. Goebbels... will point out these advertisements to poor deluded countrymen as evidence that Germany was asking for British tourists when the pernicious English were scheming to go to war with their peace-loving Fuehrer. Children, yet it might easily have the somewhat simple-minded German.

BUT there isn't a Dr. Goebbels any more, or, I had half anticipated from the start, so the folly of that propaganda books all the more foolish today when all the vast machinery of Nazi organization has crumbled in the dusty desert that was Berlin.

GOERING SCREAMS

Sept. 16, 1939

Goering has often been described as a moderating influence on the madder moods of the Fuehrer, that "best of the German" in his hypera-like howlings when he spoke last Saturday at the unnamed munitions factory in Berlin will again amaze. A look at the minutes of the 30th meeting of the board at that time, and at the end of 1940 a selection of those was published, called "As The Days Go By...". In turning over the pages of that book again I find one more piece of evidence... but I have no real interest now that we can all look back from the more pleasant viewpoint of "Afterwards."
In Britain Now: Hail and Farewell to Heroes

S.S. STRATHMORE docked at Southampton on November 13, 1945, bringing home some 2,700 officers and men of the 16th Army from the Far East and demobilization.

THE DYNAMOS, Moscow's famed soccer players, opened their whirlwind visit here on November 13, 1945, when they drew 3-3 with Chelsea at Stamford Bridge. They were on the field (below) bearing presents, which they presented to their opposite numbers in the home team—a custom common at Continental sports meetings. Later on, they were defeated by Liverpool and Arsenal by 4-3. The latter game (played at Tottenham, N. London, November 27) was almost obscured by dense fog.

FAREWELL PARADE OF R.A.A.F. VETERAN SQUADRON in this country took place at Mountbatten, Plymouth, on October 21, 1945, when they were addressed by Air Commodore G. A. Bayley (left foreground), back to camera) before returning to Australia on the S.S. Athol Castle. No. 10 Squadron, R.A.A.F., flew over 4,000,000 miles with Sunderland flying-boats of Coastal Command, destroying 8 enemy ships and damaging 16.

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Smiles on Czech National Independence Day

CELEBRATED FOR THE FIRST TIME SINCE 1938, Czechoslovakia's Independence Day rejoicings went with a swing on October 28, 1945. The British Army was represented at the parade of Allied troops, held in the capital's Stadium to mark the notable occasion, by men of the 7th Divison led by the pipe band of the Royal Scottish Rifles. A member of the coadjutant in richly-embroidered peasant costume, tried out her few words of English on a bugler sergeant as they waited for the display. The Republic was founded in 1918.

Photo: British Official