THROUGH BATTLE'S SMOKE TO VICTORY will go special Royal Marines formations as spearhead of the Allied full-scale landing in Europe. Marines are here seen training in England, charging with the new 85-in. triangular bayonet which now largely replaces, an active service overseas, the 17-in. flat-bladed type. This gallant Corps, now rich in battle honours, was formed on Oct. 26, 1944, when King Charles II sanctioned the raising of a regiment for sea service. See also pp. 438-439 and 472.
Our Roving Camera Inspects 2nd Front Stores

500-lb. BOMBS STACKED in the open, ready for use, at an Allied Ordnance Depot in England, contrast violently with the peaceful farmer and his sheep (above). More are in preparation (right) where a worker is seen removing bomb-cases from the electric annealing ovens after the heating process.

DUCKS FROM THE U.S. arrive with masses of other war material to back the Allied drive to victory. These amphibious landing craft may soon move eastward to imprint their tracks on the territory of Hitler's infidels. See also this, pp. 361 and 400-451.

COMPLETE RAILWAYS will with the Allied forces: British and U.S. instructors are working 24 hours a day to complete the line with supplies and stock. An American soldier, perched on top of an enormous pile of wagon wheels (right) checks the stock.

Photos, Associated Press, Fox Photos, New York Times Photos
ITALY

Kesselring's attacks on the Anzio beach-head, which began about a fortnight after the landing on Jan. 22, 1944, are interesting to study. They started, apparently, as a number of local counter-attacks, no doubt intended to secure points of tactical advantage and to disturb the organization of the forward defences of the beach-head. They may have been partly exploratory and partly defensive in character pending the arrival of reinforcing divisions. Nevertheless, about the time I last wrote, aided by bad weather which grounded Allied aircraft, they had gained a substantial amount of ground and had developed a formidable offensive operation, indicating that Kesselring had assembled sufficient forces to make a determined effort to retrieve the opportunity he had lost of controlling the beach-head before the beach-head could be well established.

After some days of intensive and testing fighting this first wave of the offensive was brought to a standstill, and a short pause occurred. It was quite evident, however, that Kesselring was assembling his available forces for a further effort. In due course it was made, this time, as a typical, stringing attack at penetration by armour and storm troop infantry, supported by great concentrations of artillery and considerable air attack. After some fighting the spearhead of the offensive penetrated the forward defences of the Allies on the beach-front, but failed to break through their main zone of resistance. Moreover, the Allied aircraft, which had been materially increased by the landing out, which has always been an essential feature in German attacks after initial penetration on a narrow front.

As a consequence, the whole main thrust became caught in a pocket under the converging artillery fire of the defence, in which naval guns were also able to co-operate, and by concentrated air attack. In the circumstances the enemy must have suffered immense casualties, and had apparently been committed to the attack but among those moving up in support, which would be particularly vulnerable to air attack. It is probable, however, that as so often has happened in Russia, artillery was the decisive weapon in checking penetration by armour. In this it held all the ground gained, and was driven back some distance by counter-attack. That the counter-attack did not gain more was probably in turn due to the enemy's artillery, which had exceptionally good observation points. I do not in any way suggest that infantry and tanks played a secondary part in the battle; they were fiercely engaged, but the conditions certainly would seem to have been such as to make artillery the decisive factor.

There can be no doubt that von Mackensen, who commanded the German Army engaged on the Anzio front, in this second attempt made a maximum effort. His army is reported to have consisted of 9 divisions out of Kesselring's total force of 18. Six of the nine he put into his main thrust, leaving only three to contain the Allies on either sections of the perimeter. In view of the losses he has sustained it seems improbable that von Mackensen could, with his net resources, even attempt to retrieve his position. The losses of the German army and the capture of the Anzio beach-head, which he had gained, must be set against the fact that Kesselring is in the process of reinforcing these losses with divisions from his southern army. If the attack reduced the offensive potentialities of the Anzio force, it is evident that Kesselring is in a position to attempt landing in the north, because he has moved all his reserves into the south, so that he had retained there previously to meet that contingency.

The landing, admittedly, has not achieved its original purpose, and the enemy's reactions to it were probably not what were expected; but its effect on the general military situation is undoubtedly valuable. It has compelled Kesselring to engage his whole force with the addition of divisions drawn from other theatres, and has immensely increased the rate of his losses in the war material. That might be quite as important as the political effect of the capture of Rome.

RUSSIA

In Russia the Red Army, which has taken a long time to evolve offensive power, and appears even to have gained fresh impetus since there has been a recurrence of more normal winter weather. The Germans on the almost whole front are in retreat, but it is a retreat forced on them by a series of defeats and not one voluntarily undertaken on a well co-ordinated plan. How far retreat will carry them, and what rallying positions they hope to reach, is still uncertain. They still seem unwilling to withdraw from Estonia, presumably in the hope of influencing Finland's decision and to hold Finland between the hammer and anvil of the two belligerent powers. The capture of Vitebsk seems inevitable, and it may be an opening move in another great Russian offensive.

In the south, von Manstein's abortive attempt to rescue the 8th Army of the Konev pocket only added to the scale of disaster. Now Vatutin and Koniev can combine in an unhampered drive towards the Bug. The situation on the Vatutin's right in the Rovno region at the moment seems quite critical. There may be a pause pending a further advance, for the Russian commanders have brought in reserves to meet a very threatening situation. Further south the capture of Krivoi Rog was a notable success, and the Germans paid a heavy price for holding it, though it was only 8 miles. They have probably extracted the bulk of their troops they are now forced to be fiercely pursued by Malinovsky's and Tolbuhin's armies. Here again there is no sign of a well co-ordinated defensive width with the enemy retreat involving heavy losses in rearguard actions demanding heavy sacrifices. As a result of their retreat the Germans may at last reach a shorter front on which to rally, but it will be with depleted divisions and without having shaken off pursuit.

It is a matter of opinion whether the Germans may have in time to secure the inner citadel of the European fortress, but there are no indications that that is their intention. Personally, I have previously expressed, that they will be compelled to fight to a decision on the outer perimeter. They may still hope that Russia can be bought off until they are exhausted, and therefore clinging to untenable positions even at the risk of disaster. Their action in Italy and the retention of the army in Norway and other outlying sectors all point to the same policy. The immense strength of the Allied air offensive serves to emphasize the necessity of keeping at a distance the bases which it is so difficult to establish and it can be expected that the front of battle of all will be on the western wall of the outer perimeter.
From Cassino Front to Beach-Head below Rome

A BIG GUN OF THE 5TH ARMY in Italy moves into position to fire, along with many others like it, on German positions at Cassino and beyond; the gun (1) is a 9.2-in. long-range type, throwing a very heavy shell. Splinters spatter the water and a smoke column rises (2) as the enemy bombards Allied ships off Anzio beach-head. A snow-camouflaged New Zealander of the 5th Army goes out on patrol; even his tommy-gun is covered with white material (3).
Red Guards Push Westward with Colour Flying

WITH THEIR REGIMENTAL COLOUR flapping in the icy breeze, these Red Guards (1) push on in pursuit of the enemy: for their share in the relief of Leningrad they were awarded the Order of the Red Banner, which Stalin himself pinned on in 1942. At the commencement of the city's final stand, every Red Guardsman was expected to show the headlong dash and dash-and-run of the soldiers of 1917. From beneath a Nazi antitank gun whose crew he has destroyed, Corporal Meblofier does further havoc with his machine-gun (2). Troops of the Leningrad front had by March 1 crossed the River Narva and were approaching the town itself some 150 miles west of Leningrad.

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Photo: Picture Press
raids on various outlying atolls in the Marshall Islands and on partnership in the Eastern Carolines. This was swiftly followed by a blow at Truk, in the Central Carolines, the main Japanese base in the Western Pacific. On February 16 hundreds of naval aircraft, launched from carriers, descended on the group and dropped bombs on all the principal islands. Battleships, cruisers and destroyers followed this up with a heavy bombardment. When reconnaissance planes had flown over the base earlier in the month there were at least 27 Japanese warships there, including a Remains on the general board of field marshals and admirals of the fleet, which acts in an advisory capacity to the Emperor.

To land at Truk would have been a much more difficult task than the invasion of the Marshall Islands, which are of volcanic origin. The numerous islands which make up the Truk group are of volcanic formation, well wooded, and with hills rising to 1,000 feet and more. Lying in a lagoon 40 miles across, surrounded by a reef, and containing plenty of deep water, Truk is ideally situated as a fleet anchorage.

Attention was first drawn to the importance of Truk in a book published in 1925, called The Great Pacific War, by late Hector Bywater. In the authorship of this book the present writer had a considerable share. A careful study of charts and sailing directions had showed that as an anchorage Truk was unequallled anywhere within a very considerable radius. Its relation to Japan is similar to that of Pearl Harbour to the United States. In other words, it is an important advanced base. Though the Japanese evidently do not consider it worth the hazard of fighting a major naval action, its neutralization and ultimate loss cannot fail to weaken the enemy's main defences.

Not did the Allied threat stop short at Truk. Within a week, some hundreds of American planes carried out attacks on islands in the Marianas (or Ladrones) Ethnically the Carolines between 1,300 and 1,400 miles from Tokyo. Guan, formerly held by the United States, and overwhelmed by a Japanese assault in December 1941, was one of the islands raided. Others were Saipan, used by the Japanese fleet as a secondary base, and Tinian.

Tinian was the landing of which H.M.S. Centurion made in August 1942, after a long and arduous passage from Auckland, in New Zealand. She was the survivor of a small squadron under Commodore (afterwards Lord) Anson, dispatched from England in 1740 to harry Spanish settlements on the coast of South America. Having suffered greatly from sickness and bad weather, this squadron was gradually reduced to a single ship and her crew. But Anson's indomitable spirit carried them through many trials and dangers to ultimate success. When Tinian was reached, everyone was suffering from lack of food to such an extent that only 71 men were capable of working at all, and they were terribly enfeebled. Tinian at that date was fertile, with an abundance of fresh fruit and vegetables, wild cattle and pigs, so that it proved a haven of rest for the exhausted expedition.

All three islands are flat, without the facilities for fortification possessed by Truk. Their conquest should not present the smallest difficulties when the time comes to follow up the preliminary attacks. With Truk, Guam, Tinian and Saipan in Allied hands, the position of Japan would be seriously compromised. Apart from air raids on Japanese cities, the seaborne trade along the western coast, upon which the whole life of the country is largely dependent, will be liable to attack and communications with the West Indies will also be cut off. The whole series of operations was under the command of Admiral R. A. Sprague, U.S.N. Rear-Admiral Mark Mitchell, formerly commanding officer of the aircraft carrier Hornet, from which the bombing of Tokyo was carried out in April 1942, was another of the flag officers engaged.

It looks as though the enemy forces in the islands of New Britain and New Ireland, and on the Island of New Guinea, estimated at 50,000 will now be abandoned to the Australians, and thearrivée of Australia will be before Truk is occupied depends on a variety of circumstances; but it is unlikely to the left un molested in the meantime.
Going Down for the Last Time: End of a U-Boat

COASTAL COMMAND SCORES YET AGAIN in the Bay of Biscay; its prey is this German U-boat, sinking as the Sunderland which caught it circles to make another attack. It was Coastal Command's first 1944 kill. Searching for U-boats from the Arctic to near the Equator, Coastal Command, which at any time had only a limited range around the shores of Britain, has now flown 185 million miles in more than 10,000 sorties, which include attacks on U-boats and enemy shipping, and photographic reconnaissance.
GUARDING SHIPPING at anchor in our ports, harbours and other waterways is the special responsibility of the Royal Navy, who keep in repair the great boom defences around our shores. These defences consist of miles of steel anti-submarine and anti-torpedo nets and heavy wire hawser suspended below the surface at varying depths by means of giant steel buoys, taken to the site by barge and laid out in long stretches by teams of engineers, dockers and riggers.

A boom defence Maintenance Vessel (1), left), and a Gate Vessel, which opens the boom itself to allow ships to pass in and out, are shown here. One of the最重要的是 the maintenance of the steel cable for repair; another Maintenance Vessel (4) arrives at a boom to examine the huge buoys. Miles of lost steel cable from damaged torpedoes have been salvaged from the sea (2); a punctured buoy weighing 8 cwt. (3) is brought in, one of hundreds impeding the progress of our ships. The cable salvaging nearly five miles in length.

Photo, Topical Press
These Are Our Intrepid Midget Submarines

The Victoria Cross has been awarded to Lieut. B. C. G. Place, D.S.C., R.N. (3) and to Lieut. D. Cameron, R.N.R. (4), for their supreme courage when, as the commanding officers of two of H.M. midget submarines, X6 and X7, they carried out, on Sept. 22, 1943, a daring attack which crippled the enemy's important naval base at Narvik. The two officers, in the heavily protected anchorage of Kastford, North Norway, through miles of fiord patrolled and protected by anti-submarine and anti-torpedo nets, they maneuvered their tiny craft after a passage of at least 300 miles, successfully dealt with their obstacles, and outflanked their targets. Their vessels were not captured, but were destroyed, to prevent them falling into enemy hands. The two commanders, with most of their crews, were taken prisoners.

Size of the X-boats may be judged from these photographs of one under way (1), with a member of the crew on deck by the periscope, and another showing the hatchway span (2); so small are they that there is probably insufficient room for their personnel to lie down in them properly. From their periscopes the officers, within the screen of nets protecting the Tirpitz, and from a range of over 100 yards, X6 and X7 got to work. There was an enormous explosion. It lifted the huge bulk of the battleship and left her completely crippled. In the words of one of her officers: 'We feel, in fact, another answer to the ever-recurring naval problem of how to deal with an enemy ship which will not come out to sea and fight.'
Northern Ireland’s Place in the Allied Ranks

In the period of acute crisis preceding the outbreak of war in 1939, the Parliament of Northern Ireland passed a resolution placing all the resources of the area—$237 million square miles, with a population of a little over a million and a quarter—at the disposal of His Majesty’s Government. For Ulster is British to the core. Its flag is the Union Jack. Its currency is the British currency. It is part of the fiscal union of the United Kingdom of Great Britain and Northern Ireland, and it pays the same rates of national taxation.

On December 1, 1940, a message was sent by the Premier of Northern Ireland, John MacBride, to the Secretary of State for War in London, expressing the determination of Ulster to support the government in any and every way in which it might see fit. The message was accompanied by a cheque for £100,000, the proceeds of a public subscription, to be used for the purchase of war material.

A few local air bases R.A.F. planes go out on patrol over the waters of the Atlantic. "The unprotested gaps in mid-Atlantic, the stretch of ocean which could not be covered by shore-based aircraft from either side, would have been far wider if it had not been for the Coastal Command bases in Northern Ireland," declared Mr. Herbert Morrison, at Londonderry, in July 1943: "similarly with the surface patrol craft whose range would have been lessened without the Ulster bases." It was from a Coastal Command station there that the German battleship Bismarck—afterwards sunk—was sighted.

Though aircraft construction is a modern development in Northern Ireland the wartime output of planes has reached enormous proportions; and Ulstermen are serving in all branches of the R.A.F., whilst plenty of youths below military age have enrolled in the A.T.C. Others have joined the Sea Cadet Corps. By a decision of the Imperial Government, conscription was not applied in Northern Ireland; but there has been no lack of volunteers for all the fighting and auxiliary services. H.M.S. Ajax and Ulster, which took part in the Battle of the River Plate in Dec. 1939, are only two among many ships of the Royal Navy whose crews include men from N. Ireland; and the Ulster division of the R.N.V.R. is on active service.

Cudet Force for boys aged 14-17 has since been formed. Several men of Ulster families hold high rank in the British forces, these including Field-Marshal Sir John G. Dill ("specially employed" since Dec. 1941); General Sir Alan Brooke, Chief of the Imperial General Staff since 1941; General Sir Harold Alexander, now Commander-in-Chief of the Allied Armies in Italy; General Sir Bernard Montgomery, now Commander-in-Chief of the Allied Armies in Italy; and others.

As in the rest of the United Kingdom, war production is being directed by the Production and Supply Ministries of the British Government, through the various Regional Officers in Belfast. Engineering shops have been converted to the production of a large variety of munitions. Workshops and men producing in Ulster played an important part in the land, sea and air forces in the Middle East and North African campaigns and in Italy.

A rope factory which is reputed to be the largest in the world, enormous quantities of that indispensable item for which Ulster has a great reputation, has been increased from the pre-war level of 20,000 to over 50,000. With Continental supplies cut off, the linen industry would have been hard hit were it not for the extra flax grown in the territory of Ulster.

Shipments of food to Britain are on a considerable scale, Ulster being one of the best markets for the landed produce of Ireland, and in spite of the surplus produced Ulster is subject to the same controls in food rationing as the rest of the United Kingdom. Today Ulster sends us food to the value of over £1,000,000 a year, covering such items as eggs (350,000,000 in a year), milk, fat cattle and sheep, pigs and bacon, potatoes and fruit. The canning industry has grown immensely, most of the output coming here, and the mechanization of farming has been intensified to such an extent that whereas in 1939 there were only 3,000 tractors in the country there are now 5,500 all fully employed.

On the financial side much has also been achieved. One instance is the sale of the Ulster Bank's Lion's share of its capital in April and June 1943. Wages for Victory Weeks raised well over £5,000,000. The story could be considerably extended. But sufficient has been recorded to bring us back to Mr. Hugh Dalton's (President of the Board of Trade) recent declaration as to the construction and development of the people of Northern Ireland," and to Mr. Oliver Lytton's words: "Ulster is a sure shield against U-boat attack."
Ulster Helps to Turn Our War Machine's Wheels

IN THIS WAR the people of N. Ireland, as explained in the facing page, are busier than ever before, in many and diverse ways. Training under realistic conditions are these A.A. gunners (1) during a recent exercise; their gun can also be used as an anti-tank weapon. Special training for other troops in N. Ireland is given by 64-year-old Lt.-Gen. Sir Alan G. Cunningham, K.C.B., D.S.O., M.C. (2). In 1914 he was G.O.C. of the East African Imperial Forces who conquered Italian Somaliland and took Addis Ababa.

Fledgling airmen of the A.T.C. (3) work with keen interest as they are shown how to swing the prop of a plane, by a Wing Commander of the Royal Air Force attached to an R.A.F. airfield, where the boys also attend lectures and take part in many of the normal duties. Hundreds of young fellows have flocked to join the Corps; they enter an probationary year before being accepted. The Creation of the A.T.C. was announced by the Secretary for Air, Sir Archibald Sinclair, on Jan. 9, 1914, and it came into operation on Feb. 1. The Corps' total strength in Great Britain and Northern Ireland is approximately 300,000, this including instructors, officers and cadets.

WAR PRODUCTION in N. Ireland includes the growing of over 15,000 acres of flax, from which linen is woven and items of Service equipment are manufactured, including parachutes, harness, aircraft fabric, etc., for the R.A.F. Flax-growing and canning engages the considerable attention of specialists, who are continually striving to improve the quality of the flax itself and the processes.

It is not harvested like other crops, but plucked from the ground, usually by hand. Bundled into sheaves, the flax plants are placed in small water-dams (4) for the "resting" process, which enables the fibre to be separated easily from the stems. Removed from the water, the flax is allowed to stand until it is dry out to dry, then rolled in sheaves and stored for further drying in readiness for scutching, and then spinning before weaving.

Photos: British Official; Crown Copyright; Illustration Press

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5th Army Gets Oil by Pipe-Line from the Coast

ACROSS LAND AND WATER runs the pipe-line carrying vital oil supplies to our fighting men. Above, two soldiers of the 5th Army guard a double line which begins here along across a river, suspended by steel wires and cradles from towers on either side; it runs from an Italian port to a depot just behind the main Allied front. At this terminal point (below) troops load great numbers of filled oil containers on to trucks for distribution to the units in the field.

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Photo: New York Times Photo
Venerable Pile That Became a Nazi Fortress

MONASTERY OR MAN? was the burning question which had to be decided by the Allied Command during the attack by the 5th Army on the town of Cassino, overlooked by the great, gray monastery which the Germans, despite official Nazi denials, were using as a stronghold to hold up our advance on Rome. The Allies had refrained from turning their artillery against the ancient and historic pile, as they might well have done at the commencement of the fight for Cassino; and still the enemy continued to direct their guns from the protection of its walls.

Mr. Frank Gervasi, Mediterranean correspondent for "Collier's Magazine," is quoted as declaring on his return to New York by air from Italy. "While the Germans were using the monastery as an observation post, I saw as many as four Allied soldiers go out and only 24 come back, because the Germans could see every move and turn their fire on them." Repeated warnings against this sacrilege and treachery failed to have effect, and at last, reluctantly, on Feb. 13, 1944, to save further wastage of life of our men our bombers and artillery smashed down the walls about the garrison.

Cassino Monastery, standing on top of Mount Cassino overlooking the town on the valley slope at its foot (below), as it was before the Allies were forced to surrender; if, right, obscured by the burst from one of the bombs dropped by our aircraft after a final appeal to the German garrison to withdraw had been ignored. See also p. 655.
'Cloak of Invisibility' Gives Life—or Death

In warfare today applications of the smoke screen are highly technical developments of rough-and-ready ideas hatched by ingenious days of organized battle. ALEXANDER DILKE outlines the history of smoke, for offence or defence, from the earliest recorded instance to its present status as a standardized and widely employed weapon.

It is almost certain that when we invade the Continent from the west smoke screens will play a big part. They saved many lives at Dieppe, where R.A.F. bombers screened the landing of numerous units.

Smoke screens are linked with the precision of an artillery barrage to hide the movement of troops are a modern invention. But the use of smoke to blind an enemy is probably as old as systematic warfare. The earliest recorded instance is the smoke screen which covered the retreat of the Egyptians from Egypt, recorded in the 14th chapter of Exodus. The pillar of cloud came between the camp of the Egyptians and the camp of Israel; and it was a cloud and darkness to them, but it gave light by night to these; so that the one came not near the other all the night.

At various times during the succeeding centuries, certain individual generals utilized smoke screens, but it was not until the middle of the war of 1914-1918 that their great value in attack and defence was fully realized. Amongst the historical instances of the use of smoke screens those of Cambrai and Pompey are of special interest, for they led them to cover landing operations in the same area where fighting took place in 1943.

Until the development of modern chemistry the means available for producing smoke were crude; but it is astonishing that commanders did not make more use of the smoke. Drake seems to have used smoke to conceal his ship from the numerically superior Spaniards off the coast of South America, but on land we have to wait until the 17th century for further instances of the deliberate use of smoke.

Principally the chief difficulty was that of conveying the enemy in smoke instead of their own troops. To generate smoke immediately in front of the advancing forces, or in the attacking troops themselves to carry smoke-candles, was to invite disaster, for the smoke simply blinded—and probably killed—the enemy, and the defenders had only fire to the smoke clous be fairly sure of hitting something.

The basic principle in the use of smoke is that it must be laid over or near the enemy. This was realized both by Gustavus Adolphus and Charles XII of Sweden, both of whom used smoke to enable their armies to cross rivers. The other way of carrying the smoke to the enemy was solved by building special smoke-generating burns which were propelled across the river before the attack began.

In a sense, all battles that raged during the last century were fought from behind smoke. Hughes produced such a dense smoke that after the first volley both sides fought more or less in the dark, a fact which probably accounts for the remarkably few casualties considering the point-blank range and lack of cover. When smokeless powder was introduced, a new rapidly spread. And, as a result, the possibility of a deliberately placed smoke screen and experiments were actually carried out, before the turn of the century.

The smoke candles, meant for testing drains, which were tried at Aldershot did not, apparently, give satisfaction, for the matter was dropped. Possibly the difficulty lay in finding a method of projecting the candles into the enemy lines. Not until November 1916 were the first smoke shells used, and then not until the technique of lighting candles had been tried, with disastrous results. This was in 1915, and the smoke intended to conceal the British trenches simply drew the enemy's shells.

The Coming of the Tanks

Once the principle that smoke must be projected had been driven home, the British turned their attention to the smoke screen laid by the artillery to blind the well-established enemy. The Germans quickly imitated the British methods; and smoke, both for offence and defence, became a standard weapon on every battlefield. The coming of the tanks gave opportunity to masses of smoke for other developments.

In the present war the Germans themselves have provided testimony of the effectiveness of British smoke materials and technique used in conjunction with tanks. A German correspondent broadcasting on the El Alamein battle said the British used a new smoke screen of "unbelievable efficiency. He described how the British artillery firing "artificial fog" shells laid down a murky wall of a depth, width and thickness never before seen. Out of this wall the tanks appeared right in their midst, unscathed, and the enemy was routed.

The Nazis have made considerable use of smoke for blinding the defenders of fortified positions. According to a German commentator, the smoke is provided by quadruple tracked "fog guns", completely motorized and organized like artillery regiments. They use the "fog" effect of artificial fog on the defenders, firing at an enemy they cannot see, losing touch with even the men standing next to them. The Nazis made great use of smoke in attacking Russian strongholds. It was probably this that gave rise to accusations of "poison gas."

Whether the smoke was actually poisonous does not seem certain. At the time of the attack on the Caucasus, the Cologne De Noise Tag published a letter from a German soldier at the front, eulogizing their new smoke screens, produced by shells from mortars. He spoke of the effect of the smoke on the eyes of the defenders, and enlised: Before we dismount our guns, we look once again at the Soviet forts. Nothing moves. The silence of the gravestayards reigns everywhere. The infantry advance, and the hotly-contested point is ours. The account was remarkable in suggesting that the point was subdued by smoke without the use of explosives.

The Germans are putting smoke to another use. They have tried to screen some of their munition centres from bombing by creating smoke when the R.A.F. is signalled. The technique has not been successful. The modern R.A.F. concentrated raid does not give time for the smoke to obscure the target.

A part from the use of smoke from damaged fires at sea, the generation of smoke screens by chemicals is a highly technical business which requires constant research proceeds. The requirement of countless minute opaque smoke particles to be produced from a comparatively small amount of material is not easy to fulfil. Compounds of phosphorus are extensively used; the side of the comparatively rare titanium has the property of dividing into minute opaque particles—it was used for making air mail paper opaque. Smoke generators are now used for smoke in underground workings in combination with the moisture of the air.

Smoke can be projected in grenades, mortar bombs, shells and aerial grenades. But if we like "sky-writing" have been tried, but bombs seem to be the better method. Smoke bombs were used at Dieppe, and a number of awards were made to pilots of the planes charged with the difficult and dangerous mission of laying them precisely. Wing-Commander Wilfred Surridge who was awarded the D.S.O. (see portrait p. 292, Vol. 6), made the first smoke sortie; and upon the accuracy of the smoke bomb delivery depended not only the success of the whole attack but the success of the whole combined operation.

At sea, smoke has been used not only by destroyers to cover ships they are protecting, but also by merchant ships to screen themselves. Special small aerial smoke" machines were fired from the superstructure of the steamer into ships with fixed sails to keep out of the sea of British gunpowder.

The Allies Harbour Rode...
Cassino's Sanctuary Used for Shelling 5th Army

Perched 1,800 feet above the road to Rome, the vast, castle-like Cassino Monastery was founded by St. Benedict in the year 529. The centuries swept on, and war engulfed this shrine of learning and of faith. The Germans opposing the 5th Army made of it an observation post, and presently an armed fortress; and so that many precious lives might be saved and the advance of Deliverance no longer be delayed the Allies were compelled, in Feb. 1944, to reduce it to ruins. See p. 653.
Sea Craft to Free the World

Flying the White Ensign of the Royal Navy, landing craft of manifold types make possible victorious advances from the sea. The climax of their usefulness will be apparent when the Allies descend in full force upon the mainland of Western Europe. On their bows is lettering to identify them: LCT (left background) are anchored landing ships from which assault craft are being lowered; LCF, major landing craft armed with A.A. guns; LCT, the latest type of infantry landing craft; LST, the latest type of transport ship; LCP, patrol boats, for the protection of the shore; LCA, landing assault craft; lower right, an amphibious dock (see page 201).[...

Drawn by C. R. Farmer. By courtesy of The Illustrated London News]
Modern Frigate as Escort to Allied Convoy

Germany's wolf packs of the undersea menace the latter-day frigates of the Royal Navy as its part responsible for the great toll exacted of them. H.M.S. Helmshore, representative of the River class, and here seen casing in a North Atlantic sortie, helping to protect the convoy returning dimly to the mists of distance, flies the signal "V.S." (Vagabond Stations, in service parlance) bidding the vessels to keep station: for the merchant ship that strays becomes an easier U-boat target.
by Hamilton Pyle

We have heard a lot about the neglect of defenses and precautions at Singapore. We know how the surprise attack on Pearl Harbour, in December 1941, with its disastrous consequences, was made possible by the slackness and complacency of naval officers commanding there. Less has been written about the easy wins Japan dealt in New Guinea and other Pacific islands. In New Guinea Diary (Gollancz, 10s. 6d.) by an Australian war correspondent, Mr. George H. Johnston, blame is laid out to the Australian authorities for the freedom that no British or American newspaperman would adopt.

"... Australians are paying dearly for these errors of the past. There's no sense in crying over split milk. But perhaps we can be permitted to mention a sin that is far more worrying. We don't do it in the years that the locust hath eaten, things that could have been done but weren't and things that shouldn't have been done but were. "Our little friends, the Japanese" is the phrase used more often than once in the years before the Second World War began. Our radio listeners on Australian territory and that these bombs contain scrap metal exported from Australia... is a possibility."

There was a small outcry against letting Japan have this scrap metal. Some people thought that the metal should have been used against the Chinese. But the protest was disregarded. Business came first in the minds of the scrap metal merchants. "... and now," says Mr. Johnston, "we're getting a few of those bombs ourselves."

THAT, he charges, was only one instance of fatuity. For years it had been known that Japan was a dangerous neighbour. An investigation of everything in the waters of the North Pacific had shown that this aggressor would be used against the Chinese. But the protest was disregarded. Business came first in the minds of the scrap metal merchants. "... and now," says Mr. Johnston, "we're getting a few of those bombs ourselves."

What could be producing for Australia "... almost every commodity that Japanese aggression has taken from us." Its agricultural possibilities are tremendous. Sugar, tobacco, tea, coffee, cocoa can be grown with every prospect of success. Quinine and rubber have been grown experimentally. Silk for rope-making is prolific. Rubber could be cultivated on a vast scale; it grows wild there. Minerals, too, abound. There is coal in immense quantities and coal of very high quality. Copper, gold, manganese, lead, iron and silver and a host of other valuable substances can be mined, including wolfram (chief ore of tungsten, which is used in making special steels, etc., and for munitions), which we are trying to stop Portugal and Spain sending to Hitler. None of these possibilities has been tapped in the twenty years Australia has had Papua to govern.

Excuise must be found in the climate which dissuades activity and encourages "... smug self-satisfaction," Anything that called for exertion beyond the ordinary could be put off, "... in the tropics even thinking is sometimes arduous."

The laws of tropical behaviour ordain a great deal of "... backing off in cane chairs, sipping long drinks, and discussing hangovers of the night before." Only exceptional white people can be energetic in the tropical countries, people who take care of their health and take themselves seriously and do not take many drinks. So it came about that within a few weeks of Japan striking the first blow, only one Australian base stood between Timor in the Japanese hands and the Australian mainland.

This was Port Moresby. We have heard a good deal about Port Moresby, in command of the New Guinea Force, spoke of it as the Torek of the Pacific. If the enemy had taken it, it would have given them the chance to carry out direct air assaults on Australia. So long as we held it, it was a barrier to his advance. It used to be a sleepy tropical port with a splendid harbour and an inner anchorage where a big fleet can lie hidden. It had one wharf and a few small jetties where vessels loaded coconuts. On hills round the town, which consists mainly of grass and cane huts and a few with iron roofing, are the bungalows of the white folks, ugly, decrepit and badly needing a coat of paint. Not an attractive picture, but it was less attractive was Port Moresby when it had been bombed and deserted by the Japs. In the hotels and houses, where there was the sound of tinkling ice and swig music and laughter are heard only the buzzing of insects and the kek-kek-kek-kek of the geco lizard.

Port Moresby held out, the retreat of the allied forces looking westward, their journey began. The newspapers and the radio talked endlessly about this. It was in the Stanley Range, which is the backbone of the Papua part of New Guinea. We got a picture of the range, it looked like a backbone. Though it conveyed little to our minds. For thousands of Australians who have walked the deadly roads made by this suicidal journey—and these Australians are the fathers of the next generation—it will be the one memory more unforgettable than any other that will give them pride. These were the troops who climbed every inch of the agonizing track, sometimes in burning sunshine, sometimes in cold mist. But they were forced to see what had been turned into ruins and saw so many more going back weak with sickness or maimed with bullet wounds and grenades of the enemy, run gone from their ranks simply to win a few more hundred yards of this wild, unfriendly and utterly untamed mountain." It was what General Allen called it, "... the toughest campaign of the Australian troops in this or any other war. It is described by Mr. Johnston, with vivid power and full appreciation of the human elements in the grim drama."

One very interesting comment he makes on the Coral Sea battle. It was the first time ships ever engaged each other more than a hundred miles apart, the first time a naval battle has been fought with guns to fire from ships except at it of anti-aircraft guns. The attacking was all done on both sides by aircraft and it was a great victory for the Allied Nations. It is bound to alter the whole conception of war.
First Japanese Territory Won by the Allies

Island by Island we push back the Japanese in the Pacific. On Jan. 31, 1944, U.S. forces stormed the Kwajalein group of the Marshall Islands; carving an area five times the size of Great Britain, the Marshalls were taken from the Germans by the Japanese in the 1914-18 war. American marines (top) on shell-blasted Namur, occupied by the Allies on Feb. 1; others, on Roi Island (below), containing the best airfield in the Marshalls, and also captured on Feb. 1, watch an enemy camp on Namur go up in smoke. (See map in p. 146.)

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Britain’s Colonies in the War: No. 3—W. Indies

Under the Premier’s direction, the people of Jamaica have prepared a number of mobile canteens, which will form the basis for the first election under the Colony’s new democratic constitution.

The W. Indian islands of St. Christopher and Nevis (part of the Leeward Group) purchased these mobile canteens (I) and presented them to the people of Liverpool. Glad to be in uniform are these Jamaican girls (I), who formed the first A.T.S. units to be founded in Jamaica in 1941. Good friends with the squadron mascot is this W. Indian Flight Sergeant (3), alias of a Spitfire: he hail from Trinidad.

TAKING A CENSUS in Jamaica (4), which will form the basis for the first election under the Colony’s new democratic constitution. The W. Indian islands of St. Christopher and Nevis (part of the Leeward Group) purchased these mobile canteens (I) and presented them to the people of Liverpool. Glad to be in uniform are these Jamaican girls (I), who formed the first A.T.S. units to be founded in Jamaica in 1941. Good friends with the squadron mascot is this W. Indian Flight Sergeant (3), alias of a Spitfire: he hail from Trinidad.

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Photo, British Official; Published Times
Will Rail Transport in Germany Stand the Strain?

Speddy movement of enemy troops and materials to oppose the coming attack on Europe from the east. These, though mostly under-stretched, are really Hitler with problems of the first magnitude. The position is outlined by Dr. Ernst Wirth in an article in p. 435 and references should also be made.

At this crucial moment, when the Second Front is about to materialize, the speddy movement of troops and materials—depending upon the efficiency of the railways—may become decisive. The situation is quite different from the position in the 1914-1918 war. It is true that the Germans lost the Battle of the Marne because two Army Corps, urgently needed on their right flank in France, were then on transport to Eastern Prussia; where, by the way, they arrived too late for Tannenberg. But later on, from 1917 towards the war in the east was practically over, and German traffic was concentrated to the west and only in a minor degree to the south and southeast. The war of two fronts—nightmare of all German strategists—starts at a time when the principal means of movement (railways) is already in a state of advanced deterioration.

Contrary to British tradition, the railways in Germany were always the property, and with a second front in the west, the task of military transport will be to cover distances of roughly 1,000 miles from the east to France, and 600 and more miles from Germany to Italy and the south-east. The difference from the situation in 1918 is evident: there must be a constant stream of traffic not only east-west and vice versa but north-south and all great junctions and crossings like Cologne, Frankfurt, Stuttgart, Nuremberg, Leipzig, Hannover and Berlin have been constant targets for Bomber Command. Here indeed are more sensitive points, even if temporary repairs and traffic jams may involve grave traffic jams and hold-ups.

The German railways entered this war with an order issued to the German railways a short while ago. Similar measures had been taken in the autumn of 1942, when the German traffic system became so overstrained that it was unable to cope with the demands of war transport. Then, as now, it was deemed that railway tracks and wagons should be overloaded by 25 per cent above their normal capacity.

But so many breakdowns and accidents occurred in consequence that a few months later the average speed of goods trains had to be reduced by about 30 per cent, thus again lowering the carrying capacity of transport to about 87 per cent of normal. Later on this practice had to be abandoned, because the number of broken axles, springs, and so on exceeded the possibility of repairs. The fact that the Nazi dictator of transport, General Adolf von Scholl, has once more to fall back on methods already proved to be dangerous, at a time when Germany is facing an invasion from the west, shows that her much advertised advantage of the "inner line of communication" may become jeopardized. Today this inner line is a problem of railways. Since 1933, when Hitler seized power, he has ignored all the warnings of experts and grossly neglected the railways. Necessary repairs to the permanent way, and replacement of rolling stock could not take place because the Fuhrer was hypnotized by his beloved "autobahnen."

These costly highways for motor traffic have become almost useless for the Nazi war effort: petrol and tires being so scarce that motor trucks and lorries, even for military purposes, have nearly vanished in Nazi-occupied Europe. For the movements of troops and the transport of reinforcements how the railways play a more important role than at any time during the war. One has only to look at the campaign in the east, where the deficiency of railway junctions and the cutting of railway lines compels the Germans to give up one position after another, under the management of the State. There were before 1918 the Royal Prussian, the Royal Bavarian, Saxolitian, and other lines, and even after their amalgamation into one huge undertaking the so-called private company was in fact under complete State control. Consequently, military influences and strategic considerations were dominant. It is significant that the military authorities, appreciating destruction of power stations, objected to electrification, although electric power from mountain rivers, artificial lakes and canaled rivers was cheap and abundant.

Of about 36,500 miles of German track only about 1,000 miles, mostly in Bavaria and Central Germany, were electrified. Moreover, lines were constructed for purely military purposes, such as the one laid before the 1914-1918 war from the military and industrial center of Berlin via Dessau to the west and nicknamed "Kronenbahnen" or "granade track." Between the wars, for the same reasons, a double railroad was constructed from the industrial district of Frankfurt on Main to Schwabach, with a huge bridge across the Rhine near Bingen.

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Fighting Senegalese get their Share of Jeeps

STREAMS OF WAR MATERIALS for the Allies include these rows of jeeps just arrived at Casablanca, North Africa, where Senegalese troops assemble them ready for the road. Fierce warriors from French West Africa, Senegalese took part in the victorious march by Gen. Leclerc's Fighting French troops from Chad Territory to French Equatorial Africa, against Italian positions in Libya more than a 1,000 miles distant, which coincided with Gen. Montgomery's drive into Tripolitania from the sea. See Vol A, p. 12b.
China Recaptures Burned Rice-Town of Changteh

IMPORTANT RICE CENTRE.

Changteh, in the Tsungting lake area, was taken by overwhelming Japanese forces on November 15, 1942, after a 15-day siege in which the Chinese forces fought magnificently. The enemy did not hold the city for long, as Chinese forces recaptured it.

During the fight the city was largely reduced to ashes, as is shown by the remnants of one of the towers (4), where a small band of Chinese, under intensive artillery fire, battled on until ammunition and food were exhausted. Allied aircraft dropped supplies to the Chinese in a flying operation using containers made of plaster and bamboo (5). Fallen and wounded are these weary Japanese prisoners (6) ; the Japanese took no prisoners. After the recapture of the city the people return home, a Chinese soldier (7) carrying in a cradle slung from his shoulders a baby he has found by the wayside.
They Posted Me 'Missing' When Sahib was Sunk

Sahib, as you know, was sunk. Exactly how it happened I cannot tell you, but at the end of the first lap of my journey I found myself swimming about in the Mediterranean with all the rest of the crew of the Sahib.

While we were doing that, the enemy came over and machine-gunned us from the air. One of my shipmates was killed. Eventually we were picked up by some destroyers. We were split into parties, and with Lieutenant H. Bromage, who was in command of the Sahib, the other officers and 10 ratings, I arrived at Camp 70, near Ancona.

We were there when the Italian collapse came. We were told to remain in camp and see what happened. After a couple of days 500 Germans turned up there, and some of the British naval personnel decided that it was time to leave.

Along Ledo Road to the Northern Burma Front

Ceaselessly men toil and sweat to keep the Ledo lifeline open. Through jungles, which was the home of tigers, leopards, black panthers and elephants, bulldozers now gouge their slithering way. Philip Wyver, Australian Conto- chuted Perot tells the romantic story of this great battle-track.

I have just come over the Ledo Road after some days of delay and the men on the road were fighting a 24-hour battle to keep the road open and move the convoys through. In the spectacle of the Ledo Road to the Northern Burma front, and the people on it, you find its meaning. A road sign says: "This is your life line. Treat it right."

Other signs are in English and Chinese characters. The military "traffic cops" are either American or Chinese.

On the road you meet Chinese soldiers going to the front, Chinese driving trucks and jeeps, American engineers planning, direct ing and measuring; Indian soldiers heaving crowbars; hillmen from the Himalayas cutting the jungle, building camps, and local head-hunting tribesmen passing by indifferently.

You climb over the steep ranges of Northern Burma—above the clouds and into dark valleys. You pass through jungle so thick that sunlight fails only on the pathway cleared for the road, and under the bristling wall of trees, vines, ferns and palms the ground is dark like a cave. This was the home of tigers, leopards, black panthers and elephants until the clatter of bulldozers and the smell of men drove them to quieter haunts.

This was the old opium-smuggling route from China to India, and a rough track known locally as "Marco Polo Track," touches the new Ledo Road at many points. Along this track lie bones and skulls of thousands whom starvation and plague killed as they fled from Japanese columns in Burma two years ago.

Today the great impetus "Keep the road open," "Keep it moving forward," and "Send the supplies through," knit into one pattern the jungle, the ranges, the road and the lives of people on it. This means constant combat with the terrain, jungle, rain, mud, landslides, malaria, mite-borne typhus, leeches, millions of jungle insects and heat.

And the road can be measured against the sweat and lives of the men working through daylight hours and by oil flares at night to carve a road into new country, widen and make its surface passable, to repair rain and traffic damage. For 14 months since the road first began to move from the Assam Province of North-eastern India into Northern Burma, men have done this. At the same time they kept flowing forward long columns...
of trucks with food, ammunition, medical supplies, petrol, engineering equipment and spare parts for the colonies of men working on the road.

All the time Chinese troops have operated in front of the jungle cutters and bulldozers at the moving roadhead. Today, reaching more than 100 miles across the frontier ranges, Ledo Road is moving deeper into Northern Burma in Hukawng Valley. It is common knowledge that the supreme aim of the road is connection with the old Burma Road, supply route to China, when clearance of the Japanese makes it possible.

I Went to Battle in a Tank in England

Taking part in one of the biggest invasion exercises carried out by an American armoured unit, Philip Green, Evening Standard reporter with U.S. Forces, gives his impression of "battle" fought with near-reality over a great area of the English countryside.

Guided, from Tennessee, sat quietly at the controls of an M-4 Sherman tank, his eyes to the periscope, reacting instantaneously to the inter-com orders of his commander. He looked like an automaton as he pulled one lever, then another, as the tank swung to the right or left, accelerated or stopped dead.

As I sat beside him in the second driver's seat, I knew that Gid and his pals in this iron battlewagon—Corporal Marvin Peterson, of Virginia, the gunner, and Private "Pearly" Allen Bailey, of Virginia, assistant gunner and radio operator had been trained as thoroughly as any Flying Fortress crew.

For a day I was one of the crew of this Sherman, commanded by Sergeant Lorrain Duceo, of Illinois, taking part in one of the biggest invasion exercises carried out by one of America's armoured units. The rolling English countryside had been turned into a great battle area; all day the hills resounded to the roar of big guns, the whine of howitzer and mortar shells, and the shattering clatter of machine-guns.

When I climbed into the small cockpit I was told: "Once you are buttoned down you cannot get out until the exercise is over; it'll be dangerous."

And what I saw through the 3-in. periscope convinced me that the officers briefing us was right. The vast area in front of us was as dangerous as no man's land in the real battle zones.

Patterned with Bursting Shells

The plan was to capture a position which the "enemy" had occupied during the night. It was not known how strongly the position was held, but the reconnaissance unit had reported that the enemy had established themselves in a clump of trees behind a hill some four miles away. Our job was to knock out the position before reinforcements could be brought up. In our tank we waited for orders to "take off," just as bombers wait for the word from the control tower to speed along the runway.

First the 105-mm. howitzers opened the attack. I could hear the whine of the great shells as they passed over our column, and watched the live ammunition burst on the escarpment where the enemy were entrenched. The whole area was patterned with the bursting shells.

This bombardment went on for half an hour; then we got orders to move forward.
With our 75-mm. blazing and machine-guns cracking we took possession of some of the enemy's troops in the area of Sanitia's beach-head. The British casualties from this sudden attack 198 miles. and is armed with a 75-mm. gun. Later a large proportion of these guns have been captured by the Allies. See accompanying story. Other Allied forces, having been driven back by the British, moved into the area of Sanitia's beach-head.

FEBRUARY 16, 1943. Waseda day. Russian Federation. German troops captured Sanitia's beach-head. The British forces were completely surrounded. After a fierce battle, the British managed to break through the enemy's lines and retreat. The British forces lost over 1,000 men in this battle. See accompanying story. Russian Federation.

FEBRUARY 17, 1943. Waseda day. Russian Federation. The British forces continued their retreat, losing over 1,000 men in the battle. See accompanying story. Russian Federation.

FEBRUARY 18, 1943. Waseda day. Russian Federation. The British forces continued their retreat, losing over 1,000 men in the battle. See accompanying story. Russian Federation.

FEBRUARY 19, 1943. Waseda day. Russian Federation. The British forces continued their retreat, losing over 1,000 men in the battle. See accompanying story. Russian Federation.

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FEBRUARY 26, 1943. Waseda day. Russian Federation. The British forces continued their retreat, losing over 1,000 men in the battle. See accompanying story. Russian Federation.

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FEBRUARY 29, 1943. Waseda day. Russian Federation. The British forces continued their retreat, losing over 1,000 men in the battle. See accompanying story. Russian Federation.

FEBRUARY 30, 1943. Waseda day. Russian Federation. The British forces continued their retreat, losing over 1,000 men in the battle. See accompanying story. Russian Federation.
**THE WAR IN THE AIR**

by Capt. Norman Macmillan, M.C., A.F.C.

The air war continues to rise to greater intensity in every theatre of war, except perhaps the Russian, where any almost steady volume of activity appears to be sustained, particularly by the Germans, who withdraw bomber and fighter formations of the hard-pressed Luftwaffe for action on other fronts as their food in Russia contracts with the continued withdrawal of the German armies. The Germans can effect this air withdrawal without much reduction of the proportion of their armies' air support per hundred miles of front, not only because of the contraction of the defensive line but because of the shortening of lines of communication.

Length of communication lines affects air power, just as it affects land and sea power. The aircraft are assembled in factories far removed from the fighting front. From these factories they have to be flown to pools, although the markings over some recently captured German aircraft have indicated that many of them are direct from factory to first-line airfield, due to shortage of supplies relative to the demands of existing fighting conditions.

It must be remembered, however, that shortage of sufficient aircraft cannot last long. An attack, however temporary, deficiency brought about by charges of production from one type of aircraft production, or by the elimination of modifications, such as changes in engine or armour, equipment, or all of which must occur from time to time to keep pace with technical developments. And it must be remembered that captured enemy aircraft indicate simply the natural desire of the German generals to get the latest types into action without delay, while maintaining a reserve of earlier types in food.

This, indeed, was the method adopted by Fighter Command of the R.A.F. during the Battle of Britain, and by the Luftwaffe aircraft when brought out during the closing stages of that battle were less well armoured than those that fought in the opening stages. Such omissions are almost inevitable during defensive fighting, when the fighting generals are often forced to play their best cards first to take the attack of their powerful opponents, with the hope that by doing so they will be able to produce a more favourable balance.

**MARSHAL STALIN proclaims in a recent Order of the Day that the Red Air Forces have driven back the enemy 1,000 miles. That means to the Luftwaffe 1,000 miles shorter journeys to transport their bombs, fuel, lubricating oil, spares, and technical stores; and it simultaneously knocks the same distance off the journey which the aircraft ferried from factory or pool to front have to fly. All this means a saving in time and personnel, and a saving in aircraft, too, for it is known that numerous German aircraft crashed during ferry flights to the eastern front and thus were lost before they ever got into action.

It is almost certainly this combination of savings that has made it possible for the Luftwaffe to transfer its considerable forces of bombers to Western Europe. Probably the main object behind this transfer was the urgent need to protect the emerging war machine, especially its industries, from the threat of invasion. The German generals know machines have been flown in Sicily and Italy—at Salerno and Anzio—that the critical moment of any amphibious attack is when the assault forces first come in. Then the assault forces’ objectives to resist counter-attacks is at its lowest, and must so continue until sufficient troops can be got ashore and able to establish positions, get guns into action, seize enough ground for armoured fighting vehicles and fighter air-
craft to deploy, and land all the paraphernalia of modern war, disperse it and get it into the fighting line. Quick as the Germans are in moving aircraft from one front to another it is possible that the Nazi generals feel they dare not take the risk of waiting until the invasion assault begins before transferring bombers from the east to the west.

Taking this as the most probable German point of view, it is possible to read Stalin’s declaration that the enemy is still powerful and not yet beaten: consider also the Roosevelt-Churchill warnings that great battles loom ahead, the significance of the German method of retreat and sacrifice of surrounded troops.

**WORLD Has Never Seen a Bigger Defensive Action of its Kind**

Germany is fighting a desperate defensive action on land, at sea, and in the air. It is the biggest action of its kind the world has ever seen. And it is being fought with skill and intensity that display the clever marshalling of forces and the as yet unbroken will to fight of the German soldier. There is no doubt that the present first-line strength of the Luftwaffe is about 3,000 aircraft, greater than at any time in the beginning of the war is said to be due to the increased production of fighters compared to bombers. This is true. For the weight of material and the number of men-hours required for fighter production is far below that demanded for bomber production. And as the former ratio of the Luftwaffe was around 65 per cent bombers and 25 per cent fighters (the remainder being marine and army co-operation and other types) there was ample opportunity to switch production priorities from one to the other; but the stress is apparent—fighters for defence.

At one time we had to do the same.

While the German bombers in the west await zero hour for invasion they are employed in a renewal of the attack on Britain. London is the chief target. The attacks are made by night, for the Luftwaffe still fears the daylight assailant on Britain. They have not yet, at any rate, caught up with the quality of American heavy day bombers that can fight back fighters. These inter- 
invasion attacks on London are a combination of reprisal, exercise, and employment of waiting forces. As the Russian front continues to shorten—the line Mencel-Odessa is about 20 per cent shorter than the line Narva- Odessa—it is probable that more bombers will be released for transfer to the west, and that the attacks against Britain will be increased in weight or frequency.

To some extent these attacks on Britain are a result of the Allied policy of bombing fighter factories to clear the skies of fighters for the invasion. And it is one of the penalties that Britain has to pay for being an advanced base. For almost three years we have maintained an unbroken bomber offensive with scant reply from the Luftwaffe, and we have presumably learned more about offensive bombing than about defence against the night bomber. We have multiplied A.A. guns. But multiplied Nazi guns did not stop our bombers from bombing German targets. We need still more scientific night fighter defence. It will come with the need to provide it.

Meanwhile, in the Pacific a U.S. task force hit bombed Truk, Japanese naval base in the Carolines. More bombs have fallen on the most northerly Kiribati islands, on anacorporated portions of the Marshalls, and on the Marianas. Rabaul has been practically battered into insensibility; the whole New Britain area is dominated by Allied air power. The British night and American day heavy bombers range at will all over west, central and southern Europe. The air offensive never stops.
Allied Bombers in Battle on the Italian Fronts

Air Support for the Allied Beach-Head south of Rome is strikingly illustrated by these B-24 Mitchell bombers (top) of the 11th U.S.A.A.F. flying low over the Italian countryside against German positions. Besides throwing their weight into beach-head battles, our airmen strike frequently at transport well to the enemy's rear, and hinder the regrouping of troops; bombs are leaving an R.A.F. Baltimore (below) on the way down to a target on the Rome-Pescara road. Allied air forces have flown as many as 1,400 sorties in one day.
Pursuing a New Air Attack Technique. Allied bombers in the South-West Pacific are taking increasing toll of Japanese merchant vessels and warships. The method is known as 'skip-bombing,' in which the aircraft comes in on its target at a very low altitude—usually about 60 feet—travelling at high speed and releasing its bomb with a violent jolt. After releasing the bomb, the aircraft travels horizontally for a distance before hitting the water just in front of the vessel, then bounces up from the surface of the sea and hits it. The R.A.F. were the first to employ this ingenious plan, against land targets in Northern France, in 1941. The Americans have adopted it, experimented with it for both land and sea attack, and are now finding it successful against Japanese shipping.

In Diagram 1, attacking planes are approaching their objective low above the water, thus presenting difficult targets for enemy fire (A). In Diagram 2, the bomber pilot (B) is aiming his plane at one of the merchant vessels; it is the pilot, judging the crucial moment, who actually releases the bomb. When the appropriate striking distance has been reached, the bomb leaves the plane, hits the water's surface a glancing blow (D), then passes on into the hull or super-structure of the vessel. By this time the plane (E) has passed over the ship and is clear of the danger area. Delayed action bombs are sometimes used; these give the striking planes more time to get away from the target before the dropped bombs explode.

Any type of aircraft may skip-bomb. Flying Fortresses have been most successful in this respect. The best bombs for this purpose is a medium bomber, such as the Mitchell or Marauder. Bombs used range in weight up to 1,000 lb. Beyond that weight their shape alters considerably and is not adaptable to the skip-bombing technique. 250-lb. and 500-lb. bombs are those most used. In misty or cloudy weather, low-level visibility often followed by surprise skip-bombing has proved particularly deadly. The main purpose behind this low-level method of attack is that the vessels present a bigger target than they do from a height; it is, in fact, a combination of direct flying and aerial torpedo attack.
TRAVELING to follow the current operations in this war in far more distant places than I have been within the last time. Then, and in most wars of the past, there was a “front,” or, rather, two fronts facing one another. If one were defied or broken through, it meant that the whole of it felt the shock, and very likely had to withdraw—as a whole. With a map, the whole of the fighting could be understood pretty clearly. Now there are no well-defined fronts with no man’s land between them. Battles go on all over the place. What have come to be known as “hedgerows” defenses stand like separate fortresses, with perhaps only the thinnest of supplies supporting the main body. These are really developments on a mighty scale of our blockhouses in South Africa (1899-1902) and the pillboxes of which so much was heard last time (1914-18), which were blockhouses of a more strongly fortified. The use of hedgers is for defense for so keeping certain territory free of enemy incursions. Attacking troops have no place to hide in. It is why the battle of the Nuts side in Russia. We shall find a lot of them when we invade the Continent, but we have our plans for knocking them out.”

DID YOU EVER SEE SOMERSET MAUGHAM’S PLAY HOME AND BEAUTY? I have never forgotten the roar of laughter which greeted Sir Charles Hawtrey, one of the dressers of actors, when he appeared as a soldier just demobilized in the most perfectly ill-fitting suit you can imagine. Sir James Grigg, as Weller, is, I believe, totally resolved not to ask men to look like that when they leave the forces. The Austerity Clothing rule for clothing soldiers on demobilization having been relaxed, it will not be practicable to maintain restrictions for the general public. Turn-ups and more pockets than are really needed will be on order again, and men who like to dress up as they always have dressed will be contented. But it seems to me that many women that men have behaved in this matter more like “slaves of fashion” than the soldiers, who have been depicted in the same way. Philip Snowden, when he was Chancellor of the Exchequer, once calculated that, if every Chinese could thread an inch of his shirt or blouse, or whatever his upper garment is called, the cotton industry in Lancashire would be as prosperous as ever before. So I’m told that the extra cloth needed for turn-ups will acquire much more shipping space to be allotted to wool, which is not a good thing at all, if it’s true; but I have doubts and I seriously question if any shipping space was saved while Austerity ruled in men’s clothing.

IT is not only Roman Catholic bishops and archbishops who are worried about the incidence of irregular marriages as the law is being asked to dissolve. At the present rate of increase, the Divorce Court will soon need in many cases as the whole of the several King’s Bench Courts put together. The war has something to do with it, a good deal probably. Absence does not always make the heart grow fonder. Sometimes it weakens fondness to such an extent that the heart shrinks from the thought of returning to the absent one, and always starts a new adventure. This has happened to many wives and husbands during the past five years. It is all very well for the old lady of 83 who lately celebrated her sixty-sixth wedding-day to say that all married people will at least on famously undeniable. The way miners’ wages are calculated is extraordinarily complicated. When the negotiations were going on years ago which might, if they had succeeded, have averted the nine-days General Strike of 1926 as well as the long-drawn-out misery of mining workers for several months of that year, the leaders of both sides complained in private of Mr. Baldwin’s “stupidity” in not being able to follow quickly their discussions and proposals. The truth was that they were talking about terms and calculations which were familiar to them, while he was making acquaintance, for the first time, with the system which had grown up over a very long period and become almost unintelligible to anyone outside the industry. There seemed no reason then, as there is none now, why all the figuring, the adding and subtracting and percentaging, should not be wiped out and a method substituted which would be on all fours with those of other occupations. Perhaps it might even be possible to evolve a general scale of wages for the whole of the pits, not different scales for different localities. If we could get this “reformed altogether,” in Hamlet’s words, we should have reaped one benefit from war.

RGUMMY is a capital card game for a number of people. I have played it often when I couldn’t get the Bridge, which is very much better. And I have always had a theory that Rummy was derived somehow from Poker—at any rate, Clea Rumm goes no doubt, but in a direct line of descent. Now that notion is strengthened by what came out the other day in a London police-court. The keeper of a gambling house was in the dock and it was stated by the police who raided the place that the game being played at the time of the raid was Double Rummy. Deponents of what seems to them a quiet family game, at which you can lose a few coppers, if you pay for money at all, will be astonished to learn that it is in the market. Last year, more than we give our Prime Minister. It’s a queer world isn’t it.

I wonder how mothers in Canada have taken the counsel offered them by the head of the Dominion Medical Society which they think will bring up boys too softly. They don’t, he said, train them to face the hard experiences they may have to go through. They make them what are sometimes called “mothers’ boys.” It seems a curious situation to ordinary Canadian parents. From what I have seen of Canadian women and in the logging camps of British Columbia, and on board the huge grain barges that ply on the Lakes, I should say this eminent doctor’s views are not a few cases that have happened to come to his notice, not a carefully conducted survey of the country as a whole. I have also memories of Canadian troops which make me certain that the accusation must lie justly against only a small minority of mothers. They would all be in the cities, where, as in the United States, there is a tendency for mothers to spoil their boys by over-protection. But this is only a generous and careful watch on their health and activities, and not a case of spoiling them to their demand. But most Canadians live away from cities and their maternal moral influence. So I don’t think we need worry.

It is very interesting to notice the difference between the praise Lord Waddington and the way in which he was used to get from the Press when he was Food Minister and the critical tone almost all the newspapers, including the heaviest as well as the lighter skimming forces, adapt towards him as Minister for Reconstruction. He is the same man, capable, prudent, cautious. He has much the same problems with which to deal. After all, providing houses is not so very much unlike providing bread, meat and bacon. At any rate, it requires the same qualities of mind and character. How explain the change? I think I can do it. Food Ministry headquarters are staffed by an exceedingly able set of men, and throughout the country they are assisted by experts. The nominal head, the Minister, has little to do except make suggestions or fewer for more or less for himself, and rely largely on the experts. Mr. Waddington, on the other hand, talks briskly and wants time to ponder them. The critics should hear that in mind.
For the Greatest Assault of All Time

PERFECTING THE HANDLING OF INVASION CRAFT during arduous rehearsal, here are some of Britain's Royal Marines, who will be among the first to touch down on the enemy's western beaches when dawns the day of the great Allied assault. Many hundreds are completing their training as fleetilla officers, coxswains and crews of these landing craft, combining admirably the skill of the sailor with that of the accomplished soldier. See also pp. 174, 438-439, 654-657.

Photo: Press News