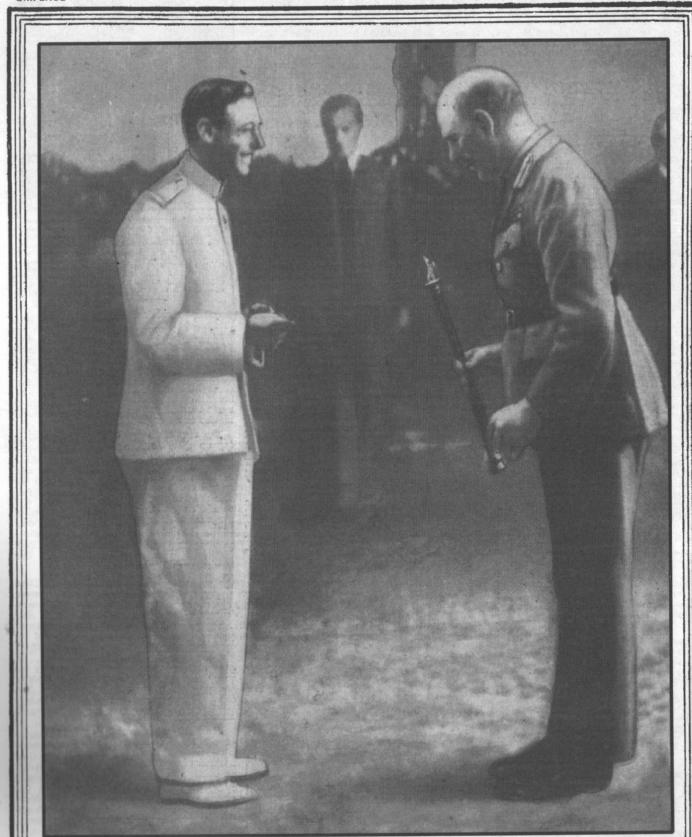
Vol 7 The War Illustrated Nº 159

SIXPENCE

Edited by Sir John Hammerton

JULY 23, 1943



REGAL SMILE FOR MALTA'S DEFENDER. H.M. the King arrived at Malta from N. Africa aboard H.M.S. Aurora on June 20, 1943.

Amid the right royal welcome accorded him by the delighted George Cross Islanders (see p. 101) he drove to the Governor's Palace in Valetta, and this photograph, taken in the palace's Hall of St. Michael and St. George, shows His Majesty presenting Viscount Gort, Malta's Governor and C.-in-C., with his Field-Marshal's baton. Viscount Gort was created Field-Marshal on Jan. 1, 1943.

Photo, British Official

THE BATTLE FRONTS

by Maj. Gen. Sir Charles Gwynn, K.C.B., D.S.O.

N July 5 the prolonged lull in land fighting was broken. At the time I am writing it is impossible to give a definite opinion as to the scale and object of the German offensive. If it achieved greater success than there is any reason to expect, it might develop into a threat to Moscow. It seems more probable, however, that it has the limited double object of forestalling Russian offensive plans and of shortening the front by ironing out the Russian salient in the Kursk region.

The exposed position of the Orel salient has also probably influenced German action.

Failing an offensive to straighten the front a difficult withdrawal from the salient would probably have been necessary, a course which might have aggravated German depression.

These objects would be consistent with a defensive policy on the Russian front necessitated by the growing threat of Allied affensive action in the Mediterranean and on the

Western seaboard. It would not surprise me if the intensification of Russian air raids on both sides of the Kerch straits is an indication that signs have been observed of a German intention to evacuate the Kuban—a probability if the Germans aim to shorten their front.

The German offensive in Russia opens again the possibility that Japan might seize it

as an opportunity to attempt to eliminate the latent threat to Tokyo from Vladivostok.

The Allied offensive in the Pacific has made a good start, and the scale on which it has been undertaken is a welcome sign of the improvement in the shipping position. Rapid sensational results cannot be expected, however, unless the Japanese fleet seeks decisive action in an attempt to restore her naval situation before it becomes worse.

on the immense length of perimeter she has to defend, but so far only actually engaged on land on one front—the Russian—Germany's strategic problems, as they affect the dispositions of her armies, are very different from those of the last war. Then her Western and Eastern forces were fully deployed, each with its quota of reserves behind it, and they were engaged with armies also deployed.

The theatres of war were, in fact, well defined and there was no necessity to maintain a strong central reserve to meet unfore-sceable emergencies. The distances between the two fronts and the strategic railways connecting them were such that, as the situation developed, it could be met by transferring strength from one front to the other and by adapting the attitude, offensive or defensive, on each to circumstances.

In this war, under present conditions, a fairly strong central reserve is essential to Germany. On her active Russian front she must maintain a fully deployed army with its quota of reserves, but greater distances and a much less conveniently laid-out system

EUROPE Threatened at many points points of danger on the threatened sectors of on the immense length of her perimeter. She cannot, of course, in these threatened sectors employ, without gross threatened sectors employ, without gross waste of power, fully deployed armies, nor can she leave the sectors without adequate forces to meet the first brunt of an attack should one be made. Obviously the forces deployed must therefore be kept to a minimum, with sufficient reserves immediately available to meet an attack in its initial phase.

But it is an irreducible minimum entailing waste of power in all sectors net actually attacked. Germany, in fact, has a very considerable part of her army dispersed inactive and yet non-transferable. The forces thus employed might be able to repel an overseas invasion, but they would have little offensive power to counter-attack an onemy who had once established a substantial facting. For counter-offensive purposes, and to avoid transfers from the active Russian front, which would probably have a very disturbing effect on the strategic situation there, a strong central reserve would clearly be the only possible solution.

Moreover, since the threat exists at a number of points on the perimeter, without



R.A.F. MOSQUITOES IN MALTA have taken a prominent part in many sorties over Italy and Sicily. They have repeatedly shot up trains, airfields, and attacked shipping in the Mediterranean. Soldiers while working with the R.A.F. on a Maltese airfield are here shown helping to move a Mosquito in order to check compass errors.

Photo. British Official: Grown Copyright



GEN. W. SIKORSKI, Polish Prisme Minister and C.-in-C., who was killed in an air crash near Gibraltar on July 4, 1993. In one of the last photographs taken of him, Gon. Sikerski is here seen acknowledging the sullube at a march past of Polish troops in Iraq. Paying tribute to the memory of this great Polish patriot and staunch ally, 19th. Churchill described him as "a man of remarkable pre-eminence both as a statesman and a soldier."

Photo, U.S. Olivial

strength to reinforce several points simultaneously. Presumably the contral reserve would not be highly concentrated but disposed in groups which would facilitate rapid reinforcement of any sector under attack; so that a counter-attacking force could be concentrated before the enemy was fully deployed and established, but when he was sufficiently committed to make his defeat a much more important success than the more repulse of an initial landing.

The comparatively slow process of deploying an army invading from overseas undoubtedly opens exceptional opportunities for successful counter-blows. The weakness of the Axis situation is that the central reserve would be earmarked for a particular role and it could no longer safely be employed to effect a great concentration for offensive purposes in Russia, as was apparently done last year when risk of a large-scale invasion in the West was practically non-existent, and when no threat had developed on the Mediterranean front.

So far as the Russian front is concerned, the main use that could be made of the central reserve would be to treat it as a pool in which fresh formations could be exchanged for those that had become exhausted in active fighting. The effect of being compelled to retain so much of her army in a state of inactive suspense over long periods, in addition to being a waste of force, may be seriously damaging to the morale of troops, especially at a time when the morale of the civil population is showing signs of weakness; for it is among those least actively employed that rumour spreads.

From the foregoing considerations I would conclude that Germany is unlikely to attempt a major offensive on the Russian front this summer; and that her main hope of achieving an important success would be, not so much by repulsing attempts at invasion, as by inflicting a disastrous defeat on a force which had landed and was fully committed, though not yet at great enough strength to meet successfully the counter-attacks Germany's available reserves could deliver.

The dispersion of the Luftwaffe over so many areas may be an even more serious matter for Germany than the dispersion of her armies, because there is a constant drain on its strength on threatened sectors before

NEW GEORGIA BATTLE AREA includes Rendova Island, the scene of U.S. landings on June 30, 1943. The Jap garrison was destroyed and the island occupied. Top relief map shows strategic points in this vital war centre. By July 5 Jap garrisons were seriously threatened on Kolombangar and New Georgia itself. Left, supplies for U.S. forces on New Caledonia are lowered from a freighter into a 23-ton amphiblous lorry. Right, American troops disembark at a base in the S.W. Pacific Lt.-Gen. Kreuger, commanding the U.S. 6th Army, is seen on the left.

Photos, Associated Press, New York Times Photos; map by courtesy of The Daily Express

the threat matures on any one. The main-tenance and protection of airfields in all menaced areas must also entail a heavy drain on resources even if the aircraft using them can normally be kept to a low figure.

S.W. PACIFIC The American and Australian offensive *********************** that started in the first week of July has so far evidently had the object of getting within striking distance of the more important Japanese advanced bases. This to some extent necessitates a step-by-step capture of the Japanese outpost islands in order to secure airfields from which a further advance could be supported. (See map p. 109.)

In the process it is no doubt hoped that the Japanese air power will suffer from attrition, and still more that the Japanese fleet will be induced to come into action. It may, however, be safely assumed that-the Allies have not undertaken the interminable task of clearing out the Japanese systematically from all their island footholds. The main objective of the present operation is presumably Rabaul, the base that is so important to Japan both for offensive and defensive purposes.

destruction of Japanese sea power, without

which the card house she has built must collapse. The Japanese fleet cannot be collapse. The Japanese fleet cannot be compelled to come into action, though it may be induced to seek decisive battle. Neither fleet is likely to risk an engagement outside the cover of its own shore-based air umbrella and within that of its opponents; but where the umbrellas overlap, as they do in the Solomons, a decisive naval engagement might take place.

The operations at Guadalcanal and in New Guinea have shown how long it may take to clear each Japanese nest; but with the growing strength of the Allies it will not be necessary to complete the clearance of one before another is attacked. The manner in which these latest landings have been accomplished is very encouraging. Not only have the equipment and preparations been of a much higher standard than at Guadal-canal, but the troops have evidently been much better trained and consequently quicker in action. The magnificent American Marines have again shown their value as a spearhead in amphibious operations.

THE Munda base cannot be expected to fall The ultimate object of all amphibious on Rendova island; for the Japanese, in destruction of Japanese, sea notice. PAGE 99

are certain to fight with their accustomed tenacity. Under artillery fire and bombing attacks they should, however, have no offensive power to interfere with further enterprises.

The capture of Salamaua, in New Guinea, may prove even more difficult than that of Munda; but the experience the Australian troops have gained should be of immense value and may help to expedite matters.

On the whole it would be unwise to expect any rapid or sensational successes, and the main points of interest are whether the Japanese will continue to sacrifice large numbers of aircraft while they are in a position of air inferiority and, more important, whether their navy will intervene in the struggle, risking again the serious losses they suffered at Guadalcanal. Obviously the Japanese could in a short time assemble heavy concentrations of both air and sea power if they considered the retention of their advanced outposts was worth the risk, and if they felt so good an opportunity for a counter-stroke might not occur again when the Allies had multiplied the number of their air bases and in general increased their strength. The longer they postpone decisive action the more will they feel the effects of the wide dispersion of their forces.

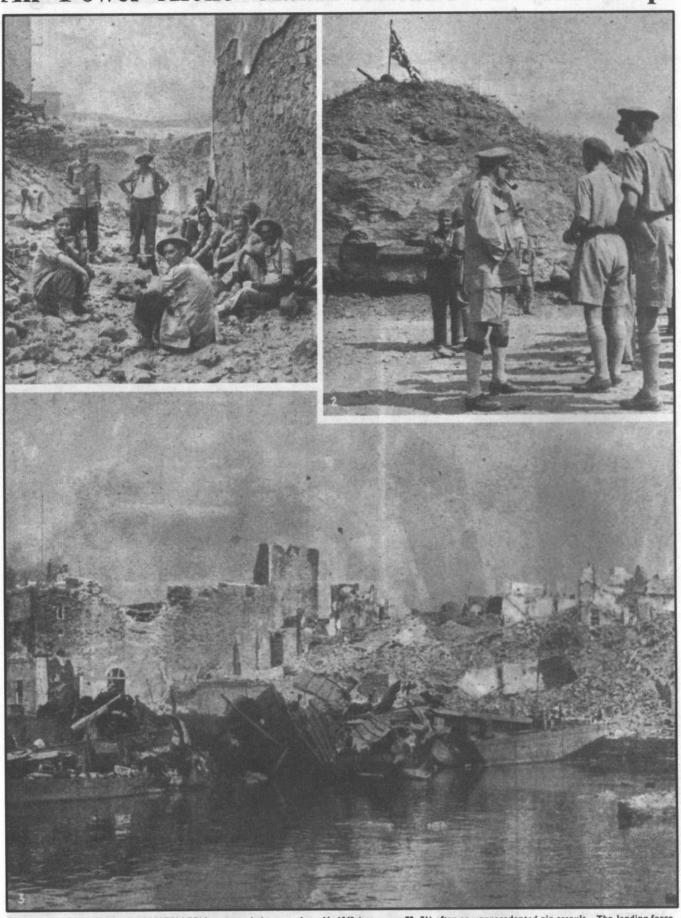
His Majesty's Triumphant N. African Tour



Joyously the Maltese Welcomed Their King



Air Power Alone Claims Its First Real Triumph

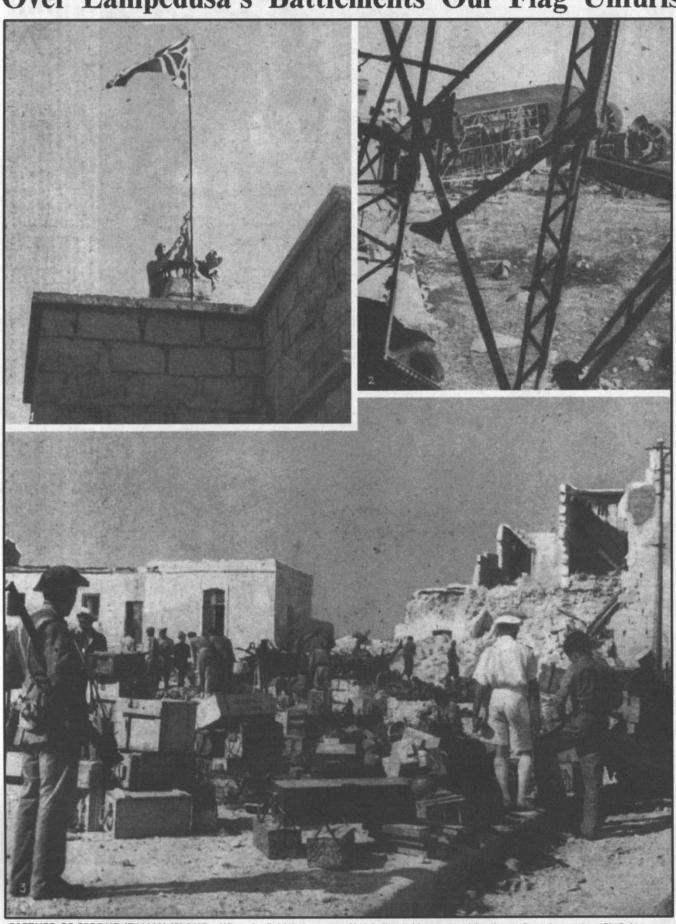


ALLIED OCCUPATION OF PANTELLERIA was carried out on June 11, 1943 (see pages 70, 71) after an unprecedented air assault. The landing force consisted of troops of the British Ist Division. Some of our men are seen amid the ruins (1) after the Italian island's surrender, enjoying a brief rest. 2, The General in charge of landing operations (smoking pipe) is shown with other officers; in the background the Union Jack flies triumphantly. 3, Devastation in the harbour testifies to our terrific preliminary pounding of the port.

The shattered hulk in the foreground was once an enemy invasion barge.

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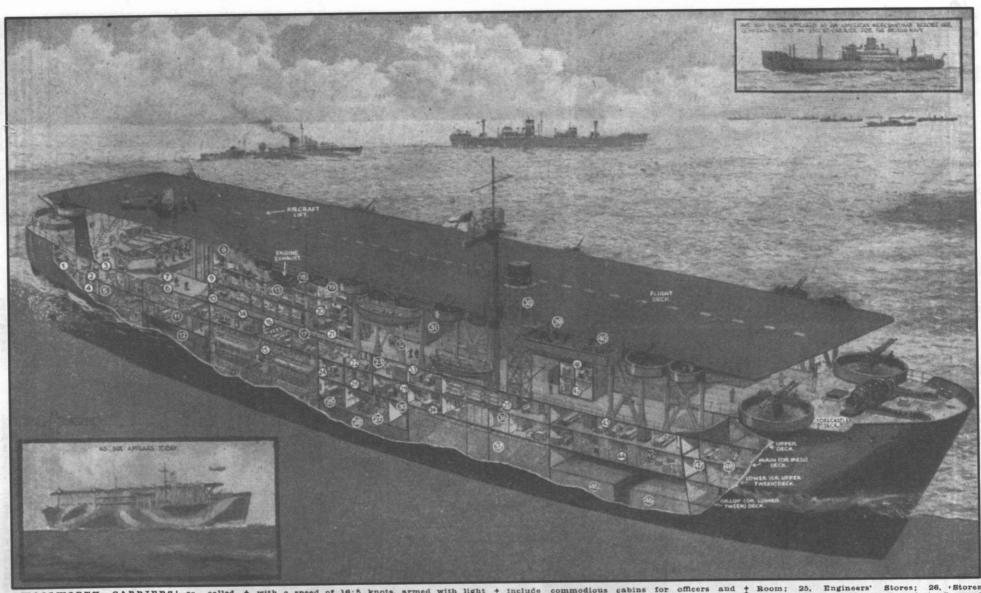
Over Lampedusa's Battlements Our Flag Unfurls



CAPTURE OF SECOND ITALIAN ISLAND. When the British destroyer H.M.S. Troubridge escorted landing-craft to Lampedusa, 70 Coldstream Guardsmen were among the troops who took possession of the former Axis U-boat base (see page 70). I, Two Guardsmen proudly hoist the Union Jack above the Italian battlements. The airfield suffered great devastation; 2, wrecked Ju 52s were among the smashed aircraft that littered the ground. 3, Italian prisoners pile captured weapons and ammunition in the square of the little port after our forces occupied the battered island, 3 une 12, 1943, following the fall of Pantelleria (opposite page).

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Phylos. British Official: Crown Copyright



WOOLWORTH CARRIERS'—so called because of their speedy mass-production—are because of their speedy mass-production—are and machine-guns, and carrying to be a converted to make the production of the carrier shown in the above drawing is to product to the carrier shown in the above drawing is the new weapons which have helped to turn the U-bost war in our favour.

In March 1943, when Colonel Knox, Secretary of the U.S. Navy, referred to new auxiliary aircraft-carriers, it was stated that these were aircraft-carriers, it was stated that these were carrier by permission of the Admiralty. Reproduced by courtesy of The Illustrated London News Drawn by G. H. Davis, from sketches made in an escort carrier by permission of the Admiralty. Reproduced by courtesy of The Illustrated London News 1945 (1945) (19

Room; 25, Engineers' Stores; 26, Stores; 27, Pumps; 28, Hold; 29, Parachute Compart ment; 30, Passage; 31, Aircraft Pilots' Cabins; 32, Quarter Deck; 33, Communications; 34, Crew's Reading Room; 35, Crew's Berthing; 36, Bulk Stores; 37, Deep Ballast Tanks; 38, Loud Hailer; 39, Flying Control Officer; 40, Bridge; 41, Coding Rooms; 42, Deck Offices; 43, Crew's Mess and Berthing; 44, Bulk Stores; 45, Hold; 46, Ballast; 47, Passages; 48, Stores.

THE WAR AT SEA

by Francis E. McMurtrie

PVIDENCE accumulates to show that the defeat of the U-boats in the Battle of the Atlantic is more far-reaching than at first supposed. Endless excuses have been made by Axis propaganda agencies to palliate the fact that the enemy submarines are no longer able to carry out a really dangerous attack on a convoy provided with adequate escort. Thus the long-established and well-tried principle of convoy for merchant ships in wartime has once more been vindicated.

One of the earliest excuses, which to some may have sounded plausible, was that U-boats had to be withdrawn from the Atlantic trade routes and concentrated in waters nearer home, so that they might resist the coming invasion of Europe. Apart from the reduced effectiveness of submarines operating in coastal waters, the feeble opposition offered by them when N. Africa was occupied demonstrates the fallacy of this theory.

Another report was that German submarines were being taken in hand for rearming with a preponderance of antiaircraft guns, owing to the increased number of planes now used for convoy protection. Though there may be some truth in this, it falls far short of an adequate explanation of the greatly reduced scale of attack in June.

That U-boats are being strengthened to enable them to withstand the shock of heavy depth-charge explosions is also improbable. Short of complete rebuilding, it is difficult to see how any appreciable addition could be made to the present resisting power of a submarine hull. It is much more likely that it has been decided to re-design the standard type of U-boat, a task that must inevitably result in the whole submarine building programme being held up for a number of months. What this must mean to the enemy at the present crisis in the war can be imagined. It goes far to explain the doleful tone of recent Axis utterances.

A VAILABLE U-Boat Crew Reserves Depleted

Apart from this possibility, it is obvious that heavy losses at the rate of more than one submarine a day, extending over the month of May and probably part of the following month, are bound to have disorganized the routine of regular reliefs on which the U-boat campaign against commerce relied. The sudden loss of so many submarine crews must have depleted the available reserves to the point of extinction; and it is probable that drafts have had to be made on the battleships and cruisers lying in Norwegian waters and in the Baltic in order to fill the gaps.

It is barely six months since Karl Dönitz, advocate of intensive submarine warfare to the practical exclusion of other naval activities, was made Commander-in-Chief of the German Navy in place of the veteran Raeder. Today the former's position must be an unhappy one, since his big new offensive against Allied convoys, of which so much was expected, has proved a disastrous failure. It is not in Hitler's nature to tolerate failures; but to supersede Dönitz immediately would merely heighten the dismay already felt by the German public. It is probable, therefore, that Grossadmiral Dönitz may last a little longer; but his advice is hardly likely to be listened to with the same attention by the Nazi rulers.

A possibility is that in these circumstances Hitler may revert to Raeder's ideas, and seek to attack commerce afresh by means of surface warships. Prospects of success by

this method are by no means bright, but so long as the people of Germany can be persuaded that some results have been achieved, it would suffice for the purpose.

What ships has Germany available for a sortie into the Atlantic? There is the big battleship Tirpitz, of over 40,000 tons; two smaller battleships, the Scharnhorst and Gneisenau, of 26,000 tons; two so-called pocket battleships, the 10,000-ton Lützow and Admiral Scheer; two heavy cruisers, the Prinz Eugen and Admiral Hipper; and at least three smaller cruisers, the Leipzig, Nürnberg and Emden. Destroyers and seagoing torpedo boats may number 40, but their fuel endurance would hardly be equal to a lengthy cruise. There is also the 19,000-ton aircraft carrier Graf Zeppelin, but she has never left the Baltic since she was commissioned and is clearly regarded as a failure. Her sister ship, the Peter Strasser, has not been completed and her construction may have been abandoned.

A REPORT from a neutral source avers that the Gneisenau was found to be so severely injured when taken in hand for refit that she could not be made thoroughly seaworthy again, and has therefore been relegated to the duties of an anti-aircraft harbour defence ship. This story has a suspicious flavour, and has probably been put out by the enemy in a clumsy attempt to hide the fact that the Gneisenau has been completely refitted and is ready to proceed to sea.

It is doubtful whether the two pocket battleships would be sent out after the fiasco of their sister ship the Admiral Graf Spee in 1939, which discredited the design.

If a squadron of uniform speed were considered essential, it would probably be made up of the Tirpitz, Prinz Eugen and Admiral Hipper, to which might perhaps be added one or more of the small cruisers. Should such a desperate step be undertaken the cruise will be a short one, designed to bring the ships back to port before they can be intercepted by a superior Allied force. Even so, there is the danger that British naval aircraft may get in an attack with torpedoes and cripple one or more of the German ships, enabling her to be overtaken and sunk. For these reasons it is extremely doubtful if any considerable force will be sent to sea; but Hitler is in such need of better news (even if falsified) to cheer his disheartened people, that it may be thought worth the risk.

The American seizure of Rendova, followed by an attack on Munda airfield, in New Georgia Island, took the Japanese by surprise. They are fighting hard to retain their foothold in the latter island and will not willingly relinquish it. To assume that the reduction of Rabaul, the main enemy base in this area, will speedily follow, is too optimistic. Still, the systematic reconquest of the chain of islands leading towards Rabaul, which has now begun, is a good step in this direction (see map p. 109).

There seem no solid grounds for expecting a major naval battle in defence of Rabaul. In my opinion its position is too remote from Japan for the enemy to consider it necessary to throw their main fleet into the contest. Even if Rabaul falls sooner than expected, and the New Guinea bases are isolated and rendered innocuous, there are still some 800 miles of enemy-patrolled ocean between Rabaul and Truk, the most important Japanese harbour in the South Seas. An attack on that base might bring about a major naval action; but the Japanese policy is to hold back their fleet as a last reserve, hoping meanwhile to wear down the Allied assault.

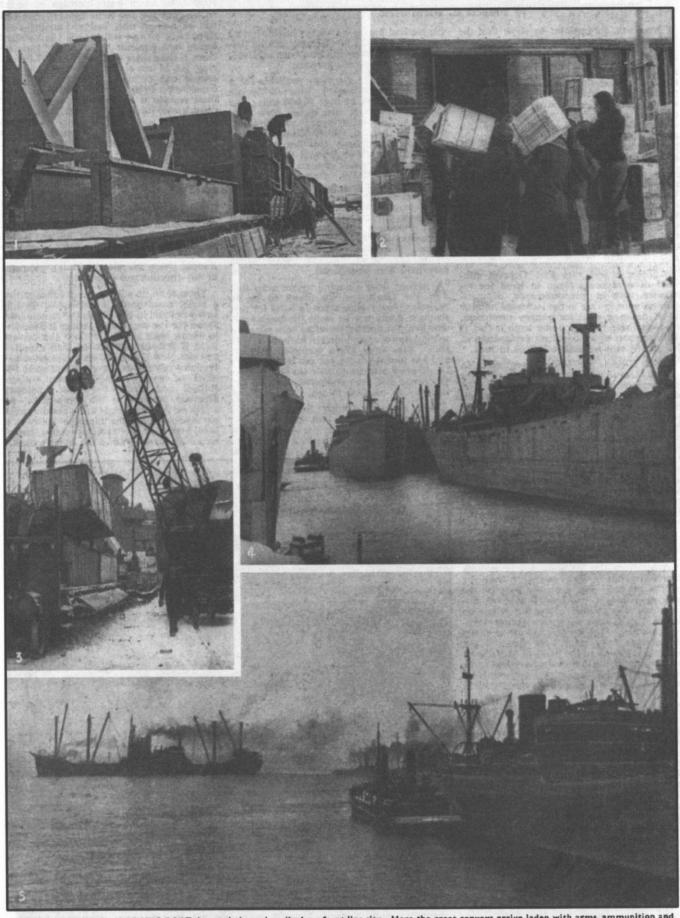


H.M.S. ARCHER (top), first "Woolworth" escort carrier to join the Royal Navy, was also the first converted merchant-ship carrier to have "killed" a U-boat. On July 5, 1943 it was stated that H.M.S. Archer's planes, Swordfish and Martlet, had attacked U-boats menacing an Atlantic convoy. One U-boat was sunk, another probably destroyed, and others damaged. Lower photo, a blindfolded U-boatrating aboard the destroyer H.M.S. Escapade, which rescued the U-boat survivors. (See illus. p. 104.)

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Photos, British Official

Great Convoys Dock in Russia's Front-Line Port



MURMANSK, RUSSIA'S ARCTIC PORT, has aptly been described as a front-line city. Here the great convoys arrive laden with arms, ammunition and stores from Britain and America. By day and by night the work of unloading goes on, and train after train leaves for the battlefronts. 1, Trainlead of structural engineering parts. 2, Women volunteers help to fill the waiting wagons. 3, Travelling crane expedites the discharging of cargo. 4, British and U.S. ships in port. 5. Unloading vessels anchored in the roads.

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Photos, K. Moiseyev, by courtesy of Saviet War News

Thirteen was a Lucky Number for this Halifax!



R.A.F. COASTAL COMMAND HALIFAX deals with a U-boat in the Bay of Biscay. Heading for the Atlantic when she was spotted, the enemy submarine was destroyed within three minutes. This was the 13th U-boat to be attacked in seven weeks by the Halifax's squadron. Depth charges are here shown straddling the enemy's deck, while one of the aircraft's wheels is seen at the top of the photograph. Mr. Churchill announced on June 30, 1943 that more than 30 U-boats had been destroyed in the Atlantic during May.

Photo, British Official: Crown Copyright

'Good Old Walrus!' Say the Fleet Air Arm

Compared with the Spitfire, for example, the Walrus may seem a figure of fun. Sometimes, as ROBERT DE WITT writes here, the men of the Fleet Air Arm themselves laugh at it. But they would not be without it: for many of them—not to mention quite a number of Nazi flyers—have been saved from a watery grave by the Walrus planes of the Air-Sea Rescue Service.

There is one plane which even the most amateur "spotter" can identify immediately it drones into view.

The rather ponderous lines of the Supermarine Walrus amphibian are unmistakable. They recall the Schneider Trophy races of the 'twenties rather than the Spitfire of which the Walrus is a "blood relation." But the Walrus, for all its "old-fashioned" appearance, can do things which are impossible for the up-to-date 400 m.p.h. fighter, or even the four-engined flying-boat designed with the wealth of experience gained during this war.

The lines of the Walrus may not be as pretty as those of the Spitfire, but it can fly in weather that would keep its cousin—or, for that matter, any other plane—on the ground. With its biplanes and rigging it may seem clumsy beside a modern flying-

the may seem clumsy beside a modern flying-boat, but it can come down on the open sea and stay afloat when the most daring pilot in any other craft would be inclined to think it suicide. Many people have laughed at the Walrus. The Fleet Air Arm themselves laugh at it. But they would not be without it, for scores of R.A.F. and German for scores of R.A.F. and German pilots owe their lives to it.

A IR-SEA rescue is the speciality of the Walrus. Its all-weather flying qualities enable it to continue tinue searching in just the bad conditions which are likely to force down damaged bombers force down damaged bombers returning from the Continent. After a big raid on Germany the Walruses go out and patrol the Channel, looking for the dinghies of planes reported missing. In some instances they are helped by messages from the pigeons carried on all bombers, or by the distress signals used by or by the distress signals used by the R.A.F. But in others they have to patrol an area, their slow speed enabling the crew to "spot" the speck which is a rubber dinghy more easily than it could be seen from a fast plane.

The rescue planes themselves carry well-

stocked dinghies and smoke signals to drop to any airman in distress on the water. to any airman in distress on the water. In some instances when airmen are found they may be able to guide the fast, specially-equipped rescue launches to them. In many cases the Walrus just goes down, alights on the water, taxies to the raft and picks up the air crew. The Walrus is not a large plane, and its normal complement is three plane, and its normal complement is three.

Modern bombers carry large crews, and Modern bombers carry large crews, and prodigious stories are told of the loads with which Walruses have staggered into the air from the sea after a rescue. Some of them are probably apocryphal. The Walrus has a whole mythology, or perhaps one should say anecdotage, of its own: it is that kind of plane. But at a seaside resort "somewhere in Britain" I have myself seen a Walrus, apparently unable to rise with its heavy load of rescued men, calmly taxi several miles through seas which I would not care to have ridden in a rowing boat, and then nonchalantly put the airmen ashore on an open beach.

Recently a Walrus came down on the sea rescue the crew of a Polish bomber. Perhaps there was some misunderstanding owing to the difficulties of the language, possibly the pilot had Nelson's " blind cyc.

Anyway, the Walrus lurched into the air with the whole crew of seven on board in addition to its own crew and made a perfect landing at the base.

The capacity of the Walrus for taxi-ing is astonishing. It is amphibian in the fullest sense, apparently equally at home on the surface or above it. On one rescue flight last year a Walrus, unable to rise because of the heavy seas, taxied 14 miles to the shore. And when the Walrus cannot fly any more, it is quite at home being towed like a small And when the Walrus cannot fly any more, it is quite at home being towed like a small boat. On one occasion a Walrus accompanying a convoy was unable to find its "mother" ship and ran out of petrol. It alighted, taxied up to a merchant ship, was taken in tow until the coast was reached and then after the falling flaw home and and then, after re-fuelling, flew home as if travelling a few hundred miles on the sea was as normal as flying them in the air !

S/Ldr. A. S. LINNEY, O.B.E., leader of an Air-Sea Rescue squadron, the Walrus crews of which recently effected their 100th rescue. Standing beside his Walrus amphibian aircraft, Linney is being congratulated by Wing-Cdr. Wilkinson (right). His squadron operates off the S.E. and photo, G.P.U.

work on air-sea rescue. It is all the more interesting because the men rescued were Germans. Walrus planes on the water trying to pick up survivors have been attacked to the control of t tacked by German aircraft who thought them "sitters" in the fullest sense; but the rule runs that men in the water are rescued, whatever their nationality.

A Walrus manned by three sergeants of the Air-Sea Rescue Service found à raft some fifteen miles from the coast. The sea was rough, and the pilot guessed that once he put the Walrus on the water he would not again be able to take off. But he went down, turned the flying-boat and came up to the raft. Flight-Sergeant Fletcher, D.F.M., a commercial traveller before the War, found his "customers" were German sailors from a torpedoed ship. He passed the boathook with the idea of making fast the raft to the plane while the men were transferred. But the German who grabbed the boathook was apparently who grabbed the boathook was apparently worrying about his companions. not just held on and was pulled in through the rear hatch of the Walrus as the raft was swept past by the seas.

The pilot made a difficult turn. (Another advantage of the Walrus in rescue work is its manoeuvrability on the water.) It came up to the raft again. The remaining PAGE 108

Germans on the raft failed to catch the rope thrown to them. The seas carried the Walrus right into the raft, damaging the kull and throwing two of the Germans into the water. A rope was thrown to them, but they were too weak to catch hold and were swept away in heavy seas. It was getting dark and they were not seen again. But before the Walrus and raft were parted the before the Walrus and raft were parted the rear gunner managed to grab one of the men on the raft and haul him into the plane.

oat. On one occasion a Walrus accomanying a convoy was unable to find its mother "ship and ran out of petrolalighted, taxied up to a merchant ship, as taken in tow until the coast was reached not then, after re-fuelling, flew home as if ravelling a few hundred miles on the sea as a normal as flying them in the air!

Here is a typical story of the Walrus at the raft and, as the plane hit, the front gunner grabbed the German and pulled him aboard. The plane taxied round searching for the men who had been swept away, while the two gunners pumped and baled. The water in the hull was 18 inches deep at one time. No sign was seen of the sailors, and the growing darkness made the search hopeless. There

made the search hopeless. There was a danger of fire from the electrical equipment, which was shorting owing to the water.

The pilot turned the Walrus towards the coast and taxied mile after mile at full throttle until, a after mile at full throttle until, a few yards from the shore, he was able to put the rescued men aboard a trawler. It was only then that he learned he had been running over minefields large enough to blow a whole navy to pieces. But it is doubtful whether prior knowledge would have made any difference to his actions. The three flight-sergeants forming the crew had all won the D.F.M. and had 11, 21 and 10 D.F.M. and had 11, 21 and 10 rescues to their credit in the "good old Walrus."

This story is typical of hundreds of rescues made by Walrus planes during this war. The Channel sees particular activity after a big sees particular activity after a big raid on the Continent, but at all times there are Walrus planes patrolling or standing by, ready to rescue, any airmen who may be in the sea.

Air-sea rescue is only one of the many tasks given to the Walrus, which is a "atility" plane in the best sense. When it comes to the Walrus as a fighter we enter the realm of mythology rather than history. The Walrus is armed, but its low speed and large hull make it a sulperable target. The Walrus is armed, but its low speed and large hull make it a vulnerable target. Normally, when engaged in rescue work in an area where enemy fighters might be expected, it is protected by fighters above. Nevertheless, Walrus planes have shot down German planes and sent many home with bulletholes in the fuselage, a greater respect for the good old Walrus and, no doubt, a story of a fierce encounter with a Spitfire or Hurricane! German airmen would consider being shot down by a Walrus much as a county cricketer would regard being bowled by an amateur. would regard being bowled by an amateur, underarm bowler!

The anecdotes about the stories of a half-hour battle with a Messerschmitt, outwitted by the Walrus, keeping so low that the German could never get in a decent burst; and of a Walrus that "led" its opponent into a church steeple which it swerved aside itself to miss.

The Walrus was not built to attack the fast modern fighter or the very heavily-armed bomber: but it is a grand plane, very robust and versatile, and the best of its kind anywhere.

America Seizes the Initiative in the Pacific



What Sort of Invasion Craft Are We Using?

With "invasion" the subject of so much of our reading and conversation, there is a distinct topicality about this article: an account by ALEXANDER DILKE of the invasion craft which we and our American allies have prepared in readiness for the all-out assault on Europe.

THEN three years ago Hitler, like Napoleon, shivered on the brink Napoleon, snivered on the Drink of the Channel, we read almost daily of R.A.F. assaults on "invasion barges." These barges were the 2,000-ton Rhine lighters, the smaller steel or oak péniches of Belgium, varying in size from 75 to 600 tons, and a collection of miscellaneous craft from all the rivers and canals of western Europe. Not one of them canals of western Europe. Not one of them was specially built for invasion, although many were hastily adapted to take tanks. The R.A.F. and possibly large-scale practice invasions persuaded the Germans that these craft would never successfully assault Britain's beaches; and so, as with Napoleon, the historic chance faded.

The story might have been very different

that he would not have to fight Britain and therefore did not contemplate armed invasion, will remain for future historians to discover.

They will also discover that at the very time when Britain was daily expecting invasion, her High Command set its own designers to work on craft that really would carry infantry, vehicles and tanks across the choppy English Channel and land them fighting. Before the danger of invasion from the Conti-nent had passed, Britain was already producing craft for the invasion of the Conti-nent. Today those craft, with the craft of different types but similar purpose from our American allies, constitute the most imposing invasion fleet ever known.

Most people credit the invention of the "invasion barge" to Germany. But in fact Britain with her tradition of amphibious war-

fare was far in front of Ger-many in design even before the War. Landing-craft for carrying Marines of a type still used today were built at Portsmouth in 1936. Flat-bottomed, steel-sided for protection, and with a ramp that could be lowered for rapid disembarkation, they were very satisfactory for short journeys. As a matter of fact, the first tank landing-craft in the world were built in Britain in 1917 for what was known as the "Hush operation." Few people have heard of them because the operation was postponed; but the craft were built and carried out practices in the Thames estuary. They were pontoons 600 feet long, which were to be lashed between two monitors and taken parcent the Cheen the control of the contr tors and taken across the Channel to assault the Belgian beach defences at Ostend.

Very different are the tank landing-craft of today. Many of their details, especially or the later types, are secret; but it is known that they are shallow-draught vessels, powered by Diesel engines producing 1,000 h.p. and driving twin screws. Except for their very square bows containing the tank ramp, they look like oil-tankers, as, for ease in driving the tanks on and off, the bridge and all accommodation is well at the rear. According to German reports, the vessels at Dieppe

which landed 30-ton tanks were grey, about 800 tons, and each carried six to eight tanks.

The vessels are capable of making considerable ocean voyages, as their presence at the North African landings showed. They are manned by the Navy, mostly by officers of the R.N.V.R. and Navy recruits who have undergone special training. trolling one of these craft at sea, putting it on the beach, and then getting it off again is quite unlike navigating an ordinary small ship. Each tank landing-craft has a crew of about twelve.

TROOP-CARRYING aircraft, now generally armoured to give protection against smallarms fire, are smaller but built on the same principles—flat-bottomed to enable them to be run up on sloping beaches and Diesel-

The story might have been very different if Hitler had had an invasion fleet of specialized craft even one-quarter the size of that now available to the Allies. Whether for once German thoroughness forgot to prepare, or

PREPARING FOR THE REAL THING, these Royal Marines, carrying out invasion exercises on the English south coast, are ready for instant action as the ramp of their dummy landing-craft is lowered. As pointed out in the text, emarking and disembarking practised ashore are part of their highly specialized training. Photo, Fox

How many of these landing-craft we have is also a secret, but we may be sure that they are being turned out very fast. Many of them are being built by women.

The United States became very interested in barges in 1940, and long before she entered the War was practising amphibious operations with specially-constructed craft. Recently the House Naval Affairs Committee approved the construction of 1,000,000 tons of naval craft for amphibious warfare at a cost of £425,000,000—an indication of the scale upon which the U.S. contemplates the invasion of her enemies in the East and in the West. Many details of the types of invasion craft which will form this million tons must be secret, but photographs and official accounts have already shown some of the advances made in recent years.

In the invasion of North and West Africa, the U.S. forces used sea-going craft carrying PAGE 110

tanks, lorries and cars. These were able to go right through the surf on to the beach, when the bows dropped down and formed a landing ramp along which the vehicles were able to drive ashore under their own power.

The U.S. have always taken considerable interest in amphibious vehicles. They have the amphibious Jeep for fording rivers and lakes, a little open four-seater which seems as much at home in the water as on the road. Then there is the Roebuck "Alligator," which looks like a low tank with the top removed. The caterpillar treads have special cleats which give a good grin or lead to cleats which give a good grip on land and cat like paddles in the water. They can carry men or supplies, and have the advantage that they "come in shooting"—there is no need to disembark at the water's edge.

and jungle.

The U.S. marines use Eureka or Y boats, which are similar to our own personnel landing craft. In the Solomons they produced some supply barges with outboard motors the size of tractors, probably the noisiest and also the most manoeuvrable craft which are on the sea.

Not only invasion craft, but also men have to be specially prepared. The naval crews are, of course, specialists; but even the soldiers must have constant practice in embarkation and disembarkation. To help this, dummy craft have been built ashore. Securing vehicles and tanks so that they will not shift in heavy seas yet will be instantly released when the craft touches the beach, calls for ingenious design and special training.

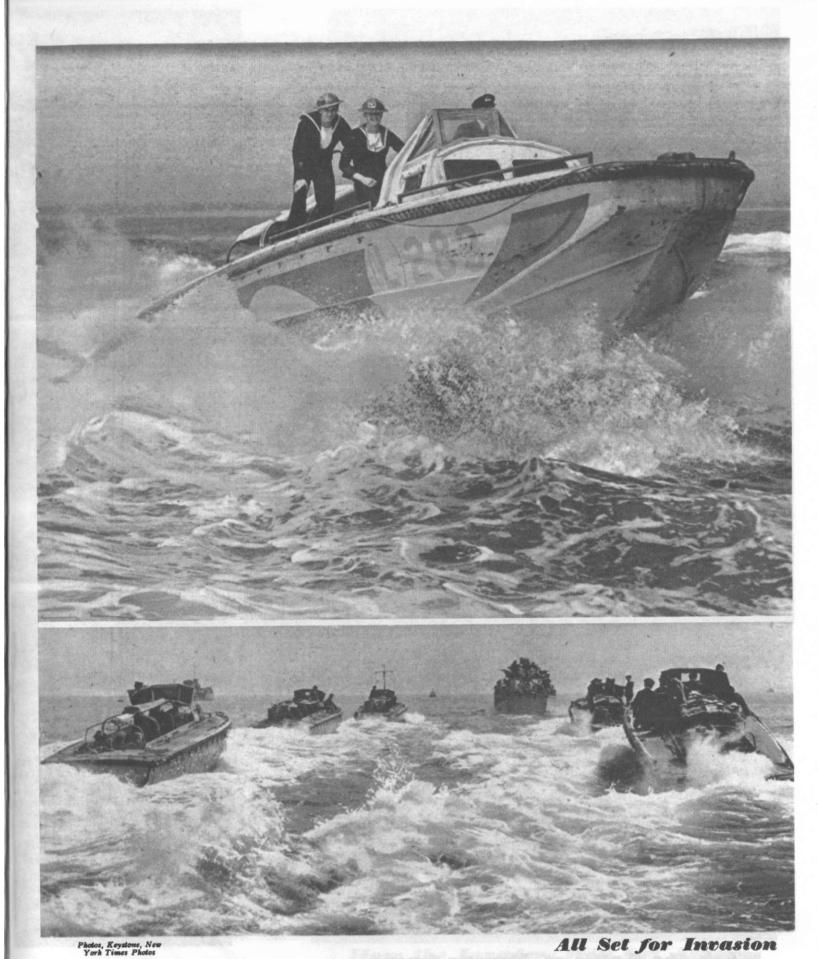
Invasion craft, being flatbottomed, are apt to roll, especially in the swell just off

the flat bottom. The smaller invasion craft are given a "lift" to a pre-arranged point near the beach by larger vessels. The methods of launching them and hoisting them aboard again are secret.

Compared the beach; and this can cause sea-sickness at a critical time. The theory has been put forward that it was sea-sickness that led the Germans constantly to postpone their invasion. Britain and the U.S. have made some progress in the conquest of this ex-hausting complaint, and their invasion craft land men not only quickly but in good

> An invasion fleet consists of more than flatbottomed craft in great variety. There must be motor-boats for protection, minesweepers to clear the way, destroyers, cruisers and so on up to battleships. These ships of every kind Britain and the U.S. now have in numbers sufficient for any conceivable number of landing craft. That is another advantage we enjoy over the Germans of 1940 who were never able to guarantee that a superior naval force would not appear.

> On the facing page and the three following pages of our special gravure section are a number of photographs which have recently been released, showing various types of invasion landing-craft adopted by the Allies for their onslaught against the European stronghold of the Axis.



In Britain, in North Africa and elsewhere overseas, great numbers of the Empire's fighting-men have been training for months past for the day when the host of the United Nations will descend on the Continent of Europe to do battle with and utterly destroy the Axis in the very seat of its power. In that greatest of amphibious enterprises air, sea and land forces must cooperate as never before, and for this they have been trained. These photographs of personnel landing-craft at full speed were taken during "Combined-ops" exercises.

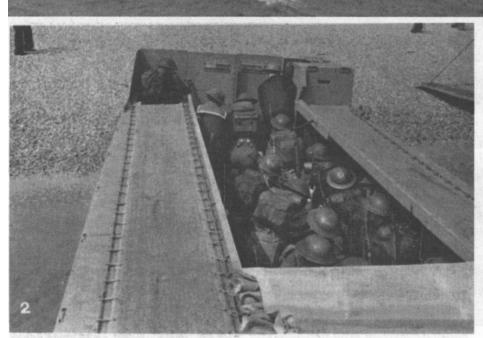














When the Battle of Europe Opens

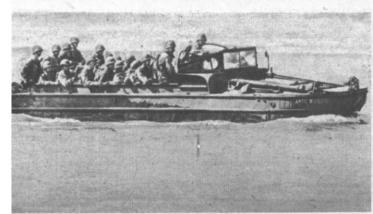
Wherever the blow may fall, the invasion of the Continent must be made from across the sea. Great fleets of transports and supply-vessels, guided and guarded by warships and aircraft, will approach the enemy coast. When near enough the troops will embark in landing-barges and, crouching low to avoid hostile fire, speed for the shore, as shown in (1). This type of craft is of such shallow draught that it lands them (2) on the very beach.

Photos, Daily Keystow.

ieror,

How the Invaders Will Get Ashore

Not one or two but scores of landing-craft, each in charge of the Navy's "assault troops," will speed for the disembarkation beaches (3). Vessels of a larger type are shown turning in (4). Safely beached, the landing-craft disgorge their load of heavily-armed invaders—in (5) they are Marines—who rush on to engage the defenders. Close behind them arrive special tank-conveying craft: in (6) a Valentine makes its own smoke screen as it takes to the land.







mericans on the Invasion Wave

Photos, Associated Press

Like Britain, the U.S.A. has an ever-increasing number of men trained in the exacting art of land-sea warfare, and they have devised landing-craft of patterns suited to their own particular requirements. Here, for instance, we see (top) an amphibious 2½-ton lorry: right, running along the sand in Florida; left, it takes the water.

Below, U.S. Marines nearing the shore in their landing-craft.

VIEWS & REVIEW Of Vital War Books

by Hamilton Fyfe

journal, who once wrote a book about them) recollect vividly the scene in the Scala opera house at Milan when Sandra Belloni, who has become a prima donna, defies the Austrian oppressors of Italy by singing "Italia, Italia shall be free!" Englishmen thrilled to that as well as Italians. The Austrians were hated in England (hard to think of them now as tyrannizers!): Garibaldi and Mazzini and Vittorio Emmanuele were heroes here and in America. They liberated their country. Italia, Italia was at last free.

But not for long. After fifty years of freedom they submitted tamely to another tyrant, this time one of their own race and a worse ruffian than any of the Austrian rulers. For twenty years now they have been governed with contemptuous brutality by Mussolini, who has reduced them to a state which can only be called sub-human.

There is in Italy "no free speech, no free writing, no free association, no free industry. All is sacrificed to the material interests of a political party. The retail shopkeeper has to obtain a Fascist licence. No doctor, lawyer, teacher or journalist can practise without the enrolment of his name by a Fascist committee, after it has looked into his conduct to see if it has been politically irreproachable. The Press is purely Fascist, with editors actually appointed and removed by the Ministry of Popular Culture."

THAT is what Mr. Richard G. Massock, author of Italy from Within (Macmillan, 15s.), says after living there as an American correspondent. He saw the effect of Fascism on the nation.

It embittered them and made them a cynical race that would welcome foreign deliverance, but were too disheartened to do anything about it except complain among themselves and to the democratic foreigners they could trust.

They know how news is systematically falsified before it is allowed to reach them. They know that high-up Fascist officials are mostly "incompetent, if not always dishonest, adventurers." They are aware that Ciano, Mussolini's son-in-law and "sedulous ape" (he tries to stick out his chin and copy the Duce's posturing)—they are aware that he has become rapidly one of Italy's richest men. He owns—for the moment—vast quantities

has become rapidly one of Italy's richest men.
He owns—for the moment—vast quantities of valuable property, including "great areas of rich Tuscany farmland in the famous Chianti wine country." His poorer countrymen attempt to imitate him by buying property "from trinkets to real estate" because they have no faith in the value of the lira, which has dropped already from has dropped already from 10d. to 2½d.; but here even they are balked by the Nazis who are everywhere in Italy and have "stripped it like a swarm of locusts." of locusts.

The Italians have got used to justice being turned into a mockery. Here is an illustration. An American clergyman, rector of a church in Rome, was arrested and accused of receiving a letter from an Italian officer containing military

some still, including the editor of this journal, who once wrote a book about in recollect vividly the scene in the Scala ra house at Milan when Sandra Belloni, has become a prima donna, defies the trian oppressors of Italy by singing alia, Italia shall be free! 'Englishmen The

That sort of humbug pervades the whole Fascist system. Mussolini wears round his neck a religious medal, though he is a notorious atheist. He pretends to have had the Government offices removed from Rome, so as to make it an open city which should not be bombed. But "it was all a fiction. The Government offices and the headquarters of the High Command remained in the city, troops were encamped there, and camou-flaged warplanes hidden under straw matting

The Canker at Italy's Heart

Mussolini and his gangsters are like Italians Mussolini and his gangsters are like Italians of the Elizabethan age, when they were reputed to be "as false as hell." He completely took in the innocent Mr. Neville Chamberlain, as he had before taken in his brother, Sir Austen. Mr. Massock was in Rome when the former as Prime Minister, with Lord Halifax as Foreign Secretary, visited the Duce and complimented him on "the new Italy powerful and progressive." "the new Italy, powerful and progressive, that had arisen under his guidance and inspiration." No British Prime Minister had ever been at the same time so fatuous and so fulsome as that. The visit was futile for the reason, Mr. Massock says, that the French Foreign Office forbade ours to attempt intervention between France and Italy. Another humiliation !

When Mussolini decides that one of his crew is too incompetent or too dishonest-or too popular—the victim is thrown overboard without hesitation. One morning he finds a note on his desk. It is in the Duce's own handwriting. "I accept your resignation and thank you for your services," it says. A thank you for your services," it says. A cheque is enclosed, usually for about £100. The sacked man disappears without delay.

"Delays have dangerous ends." The King is treated in much the same unceremonious fashion. He is reported to have said to a friend "Be careful what you tell me, for I who." He was made to pray at the graves of "you know who's" parents. After Mr. Churchill had made his radio appeal to the Italian people in December 1941 the King was ordered to issue an army order saying, "No obstacle can halt the rise of Italy"; and one of the princesses had to announce that she had become a member of the Fascist Party.

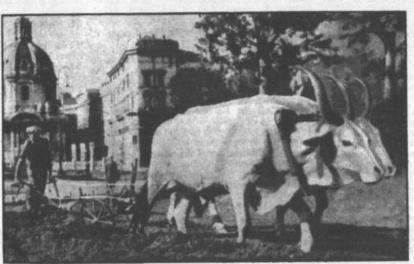
The appeal, according to Mr. Massock, and indeed according to events since it was made, turned out "a complete fiasco." The Italians were too dispirited, too listless, to do more than shrug their shoulders and ask "What can we do?" They needed no telling of the mess they were in. During Mussolini's attempt to govern Abyssinia he spent £450 million sterling. The roads on which our million sterling. The roads on which our troops advanced to wipe out the Italian garrisons cost thirty millions. Private firms' investments of 70 millions were a total loss. Italians are poorer now than in the days when they shipped hundreds of thousands of workers to the U.S. every year. They have little food and little warmth in winter; life is hard for all but the rich people and the Fascist officials.

As an example of the wages earned by a skilled worker in wartime the book mentions a foreman bricklayer who is paid fifty shillings a week, lives in a slum, and has to let his wife go out as a charwoman to earn the rent. Yet when any of them venture to make the smallest complaint Mussolini calls them a lot of bastards incapable of feeling the grandeur of this unique moment in human history" (March 1942). He ewidently knows there are a good many such "bastards," for he goes about surrounded by guards, who also look after the safety of the King; there are 350 of them and they are both busy are 350 of them and they are kept busy.

From the King, who is seventy-three and chiefly interested in collecting coins, Mr. Massock thinks there is nothing to expect. Nor has he much opinion of the Crown Prince Umberto, who "busies himself with inspections, reviews, and similar military ceremonies, and has little personality." What he heard in Italy, before he was imprisoned and then turned out made him believe that "the liberation and future system of government is primarily the business of the Italians in Italy." Those who have gone to other countries are forgotten. All the political parties seem to have been "buried so profoundly that not even their ghosts are abroad in the land." He says Ansaldo, the radio talker, was a Socialist, but went over to the Fascists "with the ardour which Italians describe as more Catholic than the Pope."

That sort of transform

That sort of transformation makes Italians distrust all politicians. But where are they to look for leadership now that the theatrical glamour of Mussolini has worn through and revealed merely a nasty old man That is the phrase which describes the distaste felt for the numerous love affairs of this fat, repul-sive-looking man of sixty. He transfers his affections very quickly, making no attempt to hide his "affairs." That they have weakened his mind and constitution are, in Mr. Massock's view, sheer nonsense. More's the pity!



PLOUGHING IN ROME and other Italian cities has long been a familiar wartime sight. Flower-beds in the heart of the Eternal City are here being ploughed by oxen. Italy from Within, the book reviewed in this page, gives a vivid picture of present conditions in that unhappy country.

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Photo, Keystone

China Can Mobilize Fifty Million More Men

The seventh day of the seventh month marked the opening of China's seventh year of struggle against Japanese aggression. And still great armies are at grips over a tremendous battlefield. The issue is not yet decided, but Capt. MAURICE BENSLEY gives reasons in this article for the belief that, sooner or later, China's almost illimitable man-power must win the day.

Before the Japs went on the warpath, nowhere was military service such an uncertain profession as in China. A soldier's pay was often months in arrears. In return for big risks, terrific hardship, and precious little relaxation, he was lucky if he received a few shillings a month—half in cash maybe, the rest in rations. There was nothing much in the way of uniform, no pension, no allowances for disablement, no compensation for his family if he died. His employers might discharge or demobilize him any day, without reason, without prospects, his wages still unpaid.

Pauperism, however, was—still is—the lot of millions of Chinese, and to many soldiering meant at least food and clothing. Possession of arms was an added attraction. But primarily the Chinese were strictly civilians. They had little fighting spirit; went into battle with umbrella, crickets and birdcage; fraternized and traded with the enemy, soldiers themselves passing to and fro between

diers themselves passing to and fro between the lines as carriers of merchandise. Was China's army of a very recent yesterday. And there had been no recognizable change when young Chiang, who, soldier-trained in Japan, returned to his homeland with 100 followers and set up the revolutionary standard against the despotic Manchu Emperor. With Dr. Sun Yat-sen, Chiang fed the revolution until it was strong enough to end for ever the tyrannies of the 4,000-year-old Chinese Empire.

WHEN Dr. Sun died of cancer in 1925 powerful war-lords did their best to hinder the subsequent work of unification, and Chiang Kai-shek was forced to flee to Japan. But he was soon back again, and formed a new government by promising regional tolerance to those disgruntled provinces which were reluctant to join his confederation. By 1936 Chiang had pacified most of the recalcitrant states, achieving a national unity never before dreamed of in China. The Marshal was not alone a great general, his eventual success was not due solely to clever military leadership. To Chiang the soldier should go the credit for implementing most of the civic reforms which sprang out of the partnership of this young Chinese rebel from Japan with that great friend of China's people, Dr. Sun.

And when total was hit the China he had re-made, threatening to sabotage the most remarkable industrial reconstruction ever crammed into a quarter-century, nobody realized better than the Generalissimo the vital need to save the precious organism. Slowly but with a sure hand he applied himself to the task.

Coal had been used as a fuel in China for 2,000 years. Her huge below-earth reserves gave her third place after the U.S.A. and Canada in this all-important source of mineral wealth. But with the invader's approach new workings had to be opened up in the interior. In the supply of tungsten, essential component of steel, China led the world. With Burma, China's co-producer of four-fifths of the world production, lost to the Japs every effort had to be made to maintain maximum output. It was anything but easy. Kwangtung province, one of China's own big sources of supply, was being greedily gobbled up by the invaders. But there was still the vast province of Kiangsi, and by developing new mines in west Honan, well out of Japanese reach, China had been able to keep her own

and the United Nations' war industries essentially supplied with this vital commodity. The same applies to antimony—a metal essential to munition-making—in which China heads world production.

The remarkable migration of heavy industry began when the Japs first set foot on China's seaboard. As Nippon's hordes advanced, a mass exodus of literally millions of workers poured into and began to develop the once isolated western provinces of Shensi, Szechwan, Honan, Kweichow, Kwangsi and Yunnan. In addition, vast new factories were established—cotton and silk mills, sugar and paper plants, as well as hospitals, universities and schools. With them came new highways, new railroads. Concentration of new industries and regulation of output led to increased efficiency. China is now turning out rifles and machine-guns, artillery and mortars, bombs and mines, shells and explosives. She is making steam turbines, gas engines, oil burners, scientific and precision instruments. Vegetable oils are made to pro-

ans. to increased efficiency. China is now turning out rifles and machine-guns, artillery and mortars, bombs and mines, shells and explosives. She is making steam turbines, gas engines, oil burners, scientific and precision instruments. Vegetable oils are made to pro-

CHINA has suffered tremendous set-backs, as related in this page, but in spite of all she valiantly fights on. The shaded portions in this map indicate Jap-occupied territory.

FRENCH INDO-CHINA HONG KONG

100 200 3

duce urgently needed motor fuel. Fourfifths of the more urgent medical supplies that China needs are now home-produced.

Magnitude of China's Handicaps

It is in locomotives, tractors, aircraft and motor-cars that China's war machine is so pitifully deficient. She has not yet the facilities to produce these war primaries, and she still has to rely on America and Britain for high-grade tools and steels, aviation spirit, and the heavier military equipment. The value of Jap-destroyed properties alone is put at £300,000,000 to £400,000,000. It is largely to replace these and their industries that industrialization of the western provinces was undertaken. The magnitude of the task would be best understood by the Russians, faced with a similar need when they transferred vast war plants in the west to safe areas east of the Volga.

But, despite her new hospitals and public health centres, her agricultural stations and farm credit organizations China's social and economic revival has been slower to operate than that of the more up-to-date Soviet Union. Her basic need—food for 450,000,000

souls—is almost as much a problem today as ever it was. Once again there rages with unabated fury in the Honan province, bordering the north-eastern battle-front, one of the worst famines in China's recorded history. The blighted area is approximately 20,000 square miles, and some of the worst stricken districts are along the Yellow River, near Chengchow, only ten miles from the Japanese lines.

"I saw," says a vivid dispatch from a Times correspondent, "train after train encrusted with humanity which was huddled on the slippery roofs of the cars... They were jammed between the cars, and many fell from the speeding trains." Weakened by seven months of starvation diet of millet husks, straw, cotton seeds, slimy weeds, and even the bark of trees, a million people in Honan are facing an epidemic of cholera and dysentery. But worse: before the harvest can relieve the situation, states the Provincial Governor, Li Pei-Chi, millions of destitute Chinese will die unless aid speedily arrives.

Yet with problems of this magni-

Yet with problems of this magnitude spiking her war effort, China manfully fights on. No expense was spared by Japan in equipping the forces she sent against her peaceable foe. But China's Army, raised from a Germantained nucleus of troops equipped with pikes and spears, has only in the last five or six years even approached the efficiency of modern-trained and armed troops. For years peasant soldiers, fed on a handful of rice of millet, performed astounding feats of endurance against a soundly-trained well-led, admirably-equipped enemy Incomplete in everything except infantry, it was man-power alone that saved China from destruction.

Chiang has been building up an increasingly formidable force of all arms. Nearly 200 divisions, though poorly armed, were in the field a year after the Japs had consolidated their coastal conquests. Now the Chinese army numbers well over 300 divisions; 5,000,000 soldiers hold a battle-line 1,500 miles long, and reserve and training units are at full strength with a further 15,000,000 men. Japanese strong points and garrisons are constantly harassed by nearly a million stubborn guerillas, widely disposed. Over 600,000 regular troops operate in organized bands on the enemy's side of the long irregular battle-front.

strong points and garrisons are constantly harassed by nearly a million stubborn guerillas, widely disposed. Over 600,000 regular troops operate in organized bands on the enemy's side of the long irregular battle-front. Completely without a military tradition a few years ago, the whole Chinese population now accepts military training as part of its very life. Seven years of total war and Jap domination of a third of the population have turned the most peace-loving people in the world into a nation whose army training now begins at school.

And behind her huge armies of fully-trained soldiers are 50,000,000 able-bodied men of military age. Japan's total falls short of this by at least four-fifths. This fact, with the present casualty ratio of one Jap to one Chinaman, must be a prospect that is anything but rosy to the military chiefs in Tokyo.

For it must inevitably spell defeat when China's new factories are at top production; when American and British war industries can fill all the gaps; and Japanese manpower, now sprawled throughout the whole of the Pacific area, becomes stretched to exhaustion point.

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Floods Add to China's Wartime Load of Trouble



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

the capture of the Italian islands of Pantelleria, Lampedusa and Lampione the Sicilian Narrows, a strange hush
Now the United Nations' armies have descended upon military operations over all Europe. While the artiles waited, and doubtless while new dispositions were being made, the war in the air continued with un-diminished fury and, indeed, in some areas of operation, with increasing power.

Italian peninsula from Leghorn southwards; upon the islands of Sicily and Sardinia. The smashing blows of Bomber Command upon the industrial towns of the Ruhr and Rhine descended with shorter pauses be-tween each raid. Repeatedly, day after day, the broadcast news bulletins stated that the principal news was of the war in the air. There could be no better illustration of the cardinal principle of war in the air, which is this: war in the air cannot pause, it is ever on the offensive, and must continue upon the offensive or fail.

The men who fly never let up. From the night following May 11, 1940, Bomber Command has never ceased to maintain its

ceased to maintain its offensive against Germany and Germanoccupied Europe. It may have had to miss a
night now and again on account of weather.
But that is all. The battle waged by Bomber
Command is continuous, and will continue
without cessation until the war ends. The
work of this Command may prove to be,
ultimately, when the whole history of this
long and widespread air war can be calmly
assessed, the classic example of the employment of air power. ment of air power.

By keying the Luftwaffe to the tactical assault needs of the German Army, the German High Command made one of its German High Command made one of its fundamental errors in this war. By doing so it failed to provide a Strategic Air Force. The Luftwaffe as a whole was a tactical force; when strategic operations in the air were demanded, part of the tactical force had to be detached for this employment, thereby weakening the parent body. Nor can it be claimed that the equipment of a tactical air force is necessarily the same as that of a strategic air force; on some occasions it may be the same, but on others it must be very greatly different. very greatly different.

It does not appear that anything that Germany can now do can correct the great and basic mistake that the German generals of the Army and Luftwaffe both made. The German troops that were halted by the snows and soldiers of Russia and by the seas and fighter pilots of Britain discovered that the way for further advances could not be prepared for them by a tactical air force.

When the German armies' advances were brought to a standstill, the paramount need of the German High Command was for a strategic air force which could prepare the

seconded upon military operations over all come to a temporary halt—faced, as the German armies were faced, by a sea crossing ande, the war in the air continued with uniminshed fury and, indeed, in some areas f operation, with increasing power.

Intensive attacks were made upon the alian peninsula from



GERMAN A.A. GUNNERS DEFEND NAPLES. This Nazi naval A.A. battery is seen in action against Allied aircraft during a heavy attack on the much-bombed Italian city. Mount Vesuvius appears on the extreme left, and the outline of city buildings on the right. Pholo, Planet News

powerful Allied strategic air force whose blows grow mightier with each passing month, preparing the way for the next onward move of the surface forces, so that, in effect, the grand offensive role never ceases by day or night.

While this air pressure continues from Britain, from North Africa, from Malta, from aircraft carriers, from Russia, beating like gusts upon the long, indented line of the German-Italian

military.perimeter, the situation in relation to Japan becomes increasingly important. In Burma the wild

violence of the mon-soon breaks in fierce storms that flood the rivers, churn the soil to mud, beat the waters of the Bay of Bengal to angry violence. I have seen it and flown through it and I know how hard a natural enemy to airmen the mon-soon is. So, in the theatre of the eastern gateway to India, the season spells stale-mate upon the ground. But it does not mean the end of air attack.

There is greater risk and strain upon the air crews, greater hardship upon the

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ground crews, discomfort in the tossing flight of aircraft passing through the turbulent air; but these things are all swept aside by military necessity, and the air war goes on while the front line troops maintain their uncomfortable positions and are stuck by mud.

In the Far East a new offensive has begun, initiated by General MacArthur. It is an offensive designed apparently with the main object of securing more air bases throughout the chains of islands that lie scattered upon the tropic seas between Australia, China and Japan. In those vast seas any advance to reconquest demands imperatively the possession of full air cover.

For by possession of that air cover transport aircraft can operate to carry supplies to the forward troops, to provide them with arms and ammunition, food, water, medical supplies, hospitals, Red Cross tender aircraft. Without superior air power the reconquest of the lost lands of the Far East might become interminable. But when we have, as we now have in steadily growing measure, air super-iority over the Japanese, the ability of the yellow race to maintain its hold upon the lands it has overrun diminishes with every fresh blow that United Nations' air power strikes. Each forward move of the ground forces in concert with the unified plan of air, sea and land operations brings into the realm of the United Nations territory wherein new air bases can be sited, and wrests bases for their air forces from the Japanese.

At the moment, this process has taken its first forward movement, and during this period is fraught with many difficulties; but as the process continues the power of the united Nations will steadily expand, while that of the Japanese will continually contract—for, as the Japanese are forced northward, a zone will be reached wherein the islands available to them are smaller, the air bases fewer, the capacity for defence slighter, and the geographical opportunities for the United Nations to engage them become more suited to the application of our strategic air power.

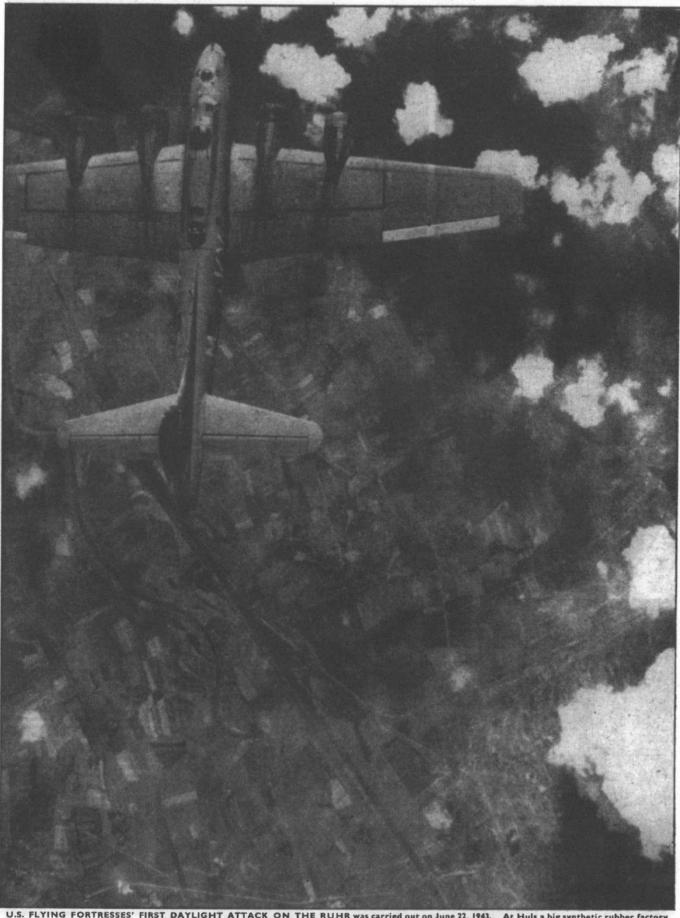
But it is not strange that the offensive against the Japanese in the South-West Pacific began during the lull over the German-Italian zone and the monsoon stalemate on the Indo-Burmese front. Germany and Haly would naturally hope that Japanese pressure in the Far East might draw away from them some of the terrible air pressure which they now face. General MacArthur's offensive in the Pacific anticipates the possibility of Japanese intervention there to succour the Axis partners in their European imbroglio.



U.S. THUNDERBOLT, piloted by 2nd Lt. J. Foster, was recently singled out for attack over France by German fighters. Five 20-mm. shells ploughed into the right wing of the aircraft. Its pilot managed to fly the damaged plane to England and crash-land.

Photo, U.S. Official

Fortress-Eye View of a Raid on the Ruhr



U.S. FLYING FORTRESSES' FIRST DAYLIGHT ATTACK ON THE RUHR was carried out on June 22, 1943. At Huls a big synthetic rubber factory—the second largest of its kind in Germany—received a devastating weight of bombs, no part of the target escaping damage. This photograph, taken from a Fortress at the height of the raid, shows one of the attacking planes. At bottom right, great clouds of smoke and columns of flame almost obscure the whole of the target area.

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Photo, United States Official

How Russia Trains Her Mighty Reserve Armies



TAKING ITS FIRST OBSTACLE during a practice test, this Soviet tank is watched by Red Army men undergoing intensive training in tank warfare. The inscription on the turret reads: "Crush the Fascist viper!" Great battles, involving formIdable numbers of tanks, were taking place N. and S. of the Kursk salient from July 5, 1943.







FIGHTING POWER OF THE U.S.S.R. has grown to gigantic dimensions since that fateful June 22, 1941, when Hitler treacherously marched into Russia. Now, while Germany is experiencing a shortage of man-power reserves, Russian reinforcements are being continually brought up to the fighting fronts, equipped with the most effective means of destroying the enemy. The Soviet war industry is not only able to replace considerable material losses, but, with the help of Britain and America, to keep the Red Army—with its constant influx of recruits—supplied with an ever-increasing flow of armaments. Above, young Russians an ever-increasing flow of armaments. Above, young Russians receiving their first lesson in bayonet fighting, for which the Red Army is mightily renowned. Left, under the guidance of keen instructors, trainees carrying full kit are being toughened by arduous marching-drill in column of fours.

Pholos. Pictorial Press, Exclusive to The War Illustrated

Egypt Salutes Flags of Thirty-Four Allied Nations



UNITED NATIONS DAY IN EGYPT was celebrated in Cairo and Alexandria on June 14, 1943 by impressive parades. In Cairo 5,000 troops, sailors and members of the women's Services took part, while R.A.F. fighter squadrons swooped low over the city to salute the flags of 34 Allied nations. Top, soldiers bearing their national flags halt at the saluting base; the salute was taken by Gen. Sir H. Maitland Wilson, C.-in-C. Middle East Forces. Lower photo, Army detachments march along the promenade at Alexandria. PAGE 121

Photos, British Official: Crown Copyright

THE HOME FRON

by E. Royston Pike

Two years have passed since the great blitz ended in 1941. Now it is the Germans whose Civil Defence forces are being stretched to the utmost; and their plight (on their own confession, as made by war reporters who have visited the Ruhr, Cologne, and other sorely battered cities of the Reich) is so terrible that one would think that, as Miss Ellen Wilkinson put it the other day, "either the Germans must hit back at us or confess to the world that Bomber Command can make rubble of their vital industries while they are helpless to do more than defend themselves." So far the Germans have not renewed their "blitz"; quite a number of our coast towns have been visited by hit-and-rung resider and (conditional conditions). "blitz"; quite a number of our coast towns have been visited by hit-and-run raiders, and (according to German accounts)

Hull has been severely attacked. But there is plenty of sound and fury in the enemy camp; and Goebbels and his propagandists are trying to bolster the morale on their own home front by blood-curdling threats of what they are going to do to us before many weeks have passed.

ALTOGETHER, then, it was not inopportune that the House of Commons should debate the state of our Civil Defence organization. Opening the debate on June 30, Miss Wilkinson, Parliamentary Secretary to the Ministry of Home Security, viewed the question as one of the amount of insurance that we should carry against the possi-bility and, indeed, the probability, of the Nazis carrying out their threats. As regards the Civil De-fence general services, the insurance today falls below that of its peak in 1941, although the insurance against fire is considerably higher. In the whole-time personnel the C.D. establishment has been cut by about a third in the last twelve months, and further cuts are to be made before very long. So far as possible whole-time personnel are being replaced by part-timers, but already there are rather more than ten part-timers to one whole-timer;

ten part-timers to one whole-timer; to make up the rota, about three part-timers are required for every whole-timer relieved. It is remarkable how much the whole-time personnel are doing to help the war effort in their stand-by periods. They have helped in salvage work, the clearance of debris, and in harvesting, while the women have given a great deal of clerical help to the local authorities—among other things, they wrote authorities—among other things, they wrote out millions of the new ration books recently issued—and they have also assisted in the running of day nurseries and maternity and child-welfare clinics.

While a raid is on, Miss Wilkinson continued, the biggest single problem is fire. Photographs from Germany have shown that it is not only the fire inflicted during the raid which does damage, but insignificant bombs which get lodged in gutters, and little pieces of phosphorus which cause blazes after the raid is over. But our precautions against fire are far superior to what they were two years. fire are far superior to what they were two years ago. The National Fire Service, consisting of 42 large fire forces instead of, as formerly, 1,451 local brigades, is something of which the country can be really proud; and there are, in addition, about five million fireguards.

Somewhat earlier in the month the National Federation of Women's Institutes held their conference at the Albert Hall in London. Mr. R. S. Hudson, Minister of Agriculture, addressed one of the sessions; during the last four years, he said, the countryside has

been reborn and has resumed its rightful place in the life of the nation. Without the countrywomen—in particular the 300,000 included in the 6,000 Women's Institutes—this could not have happened; it was they who had made the miracle possible. The high-light of the Conference was a surprise visit from the Queen.

Today (she said) our villages are sadly empty. The young men are away fighting for the land they love so well. The girls, too, are at their war-work, and the great responsibility of carrying on rests with the older women. How gallantly they are doing this, shouldering every sort of job with such a grand and cheerful spirit, and planning and praying for the day when their dear ones come home again!

Sometimes, when I go through our villages and



FIREGUARDS' NEW WEAPON, the "wheelbarrow pump," is a petrol-driven appliance intended to replace the familiar stirrup pump. Several have already been sent to important target areas. A crew of two men and a woman is shown with their new machine, ready for action.

look at the gardens, so full of colour as well as of vegetables, I think of the hard work that goes to the making of them, and of Kipling's lines:

Our England is a garden, and such gardens are not made

By saying "How Beautiful!" and sitting
in the shade.

No, indeed, you country-folk have allowed yourselves no sitting in the shade. . . .

A ND what sort of work have the Women's Institutes been doing! In their last report there is a list of activities showing that ten Government departments are very much in their debt. Here are some of the items:

Encouragement of schemes for the production of vegetables, fruit, rabbits, poultry, pigs, etc. Help in the repair of rubber boots for agricultural Help in the repair of rubber boots for agricultural workers, and in the organization and supply of part-time labour on the land. Hospitality for the Women's Land Army. Help in the school meals, cod-liver oil and fruit juice schemes. Administration of rural section of the Fruit Preservation Scheme. Production and collection of culinary herbs; also medicinal herbs. Making toys for refugee children. Propaganda and educational work for diphtheria immunization and V.D. campaigns. Hospitality to American troops. Salvage of

scrap iron and paper Establishment of hundreds of War Savings Groups. Welfare work for A.T.S., A.A. units, W.A.A.F.s and Home Guard, etc. . . . What a list! And the etc. at the end covers a multitude of good things and deeds

London Transport was ten years old on July 1. This is not the place to give the history of the huge organization—it is the history of the huge organization—it is the greatest urban transport system in the world —which does for Londoners what was formerly done by 5 railways, 17 tramways and 136 bus and coach undertakings; but at least we may recall some of the wartime achievements of the London Passenger Transport Board. An unco-ordinated system of transport could have have focal without of transport could never have faced, without of transport could never have faced, without serious risk of breakdown, the tremendous difficulties which the Board has successfully surmounted. Among its war tasks are the training of 6,000 employees as specialists in air-raid work, the construction of shelters for passengers and staff, the blacking-out of thousands of vehicles, the evacuation of 450,000 children, the conversion of the fleet of express coaches into ambulances, the development of a system of road spotters to warn drivers of imminent danger from aircraft, the provision

danger from aircraft, the provision of sleeping accommodation and the making of feeding arrangements at 79 Underground stations for those seeking shelter during air raids. (As many as 160,000 men, women and children found shelter in the Tubes at one time.)

Throughout the ten years Lord Ashfield has presided as the Board's chairman (as for many years before 1933 he presided over the "Underground" group of companies). Associated with him until 1940 was Frank Pick, who was not only a great man of business but a man with a fine artistic sense—as the posters which used to adorn the Tube stations in peacetime bear eloquent witness. But while gladly acknowledging the work of such men of superlative ability and achievement. let us not forget the tens of thousands of employees who, in good weather and in bad, before the blitz, during it, and since, have kept running the buses, the trams and trolley-buses, the Tubes and the local railways. And we must not forget to record the fact that many of them today are women. We have got quite used to women porters and ticket collectors; and the "conductorettes"—among the best-paid of women war-workers—rival in their perky humour their predecessors, those Cockney friends of ours who have been telling the Germans and Italians to "pass along"—without the "please."

WHAT are the actual earnings of

those engaged in industry at the present time? Every six months the Ministry of Labour and National Service sends out a questionnaire to some 55,000 employers. The latest inquiry was made in January last, and the results have just been published. The figures relate to those employed in a number of the most important industries—textiles, clothing, food, drink and tobacco. building, transport. drink and tobacco, building, transport, public utility services and Government industrial establishments—but do not include coal-mining, agriculture, railways, merchant shipping, the distributive trades, catering, and domestic service. The average earnings in the last pay week of January 1943 of the 64 million workpeople covered by the returns received were as follows

Men, 21 years and over Youths and boys under 21 years .. 45s. Women, 18 years and over Girls, under 18 years . .

These are general averages, and it will be understood that they are affected by the fact that different industries with varying levels of wages were not represented in equal proportions in the returns received. And, of course, the actual figures for the different industries vary widely.

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Awarded the Little Bronze Cross-For Valour



Maj. J. T. M. ANDERSON, V.C., D.S.O. Led attacks on Longstop Hill, Tunisia, on April 23, 1943, and though wounded carried on and captured the position with a small force of men. For this he was awarded the V.C. He won the D.S.O. last May.



Lt. W. A. SANDYS CLARKE, V.C.

Dealt with two sniper posts single-handed during an enemy attack at Guiriat ef Atach, Tunisia, on April 23, 1943, and recaptured three-quarters of the position before he was killed. He was posthumously awarded the V.C.



Act. Capt. F. T. PETERS, V C., D.S.O., R.N.
Completed an "enterprise of desperate hazard"
when his ship rammed and shattered the boom
of Oran Harbour on Nov. 8, 1942. He was
killed in an air-crash the same month. In
addition to the V.C. he was awarded the
American D.S.C. for his heroic exploit.



2/Lt. MOANA-NUI-A-KIWA NGARIMU, V.C.
This Maori officer led his men to capture a
vital position on Tebaga Gap, Tunisia, on
March 26, 1943. In a violent Nazi counterattack "he was killed on his feet, facing the
enemy with his tommy-gun at his hip," and
was posthumously awarded the V.C.



Mai. (temp. Lt.-Col.)
LORNE M, CAMPBELL, V.C.
Formed an important bridgehead for a brigade of the 51st (Highland) Division at Wadi Akarit, Tunisia, on April 6, 1943, and subsequently captured some 600 prisoners. He was awarded the V.C. for this gallant deed.



SABADAR LALAHADUR THAPA, V.C., and HAVILDAR PARKASH SINGH, V.C.

This valiant Gurkha officer (left) displayed remarkable leadership during crucial fighting at Wadi Akarit last April. He is seen being congratulated by H.M. the King after the latter had decorated him with the V.C. (the fifth to be awarded to a member of the Indian military forces in this war) in N. Africa in June 1943. Of the 8th Punjab Regt., Havildar Parkash Singh (right) earned his V.C. by great gallantry on Jan. 6 and 19, 1943, in hard fighting in the Mayu Peninsula, Burma.



Photos, British Official: Crown Copyright, Indian Official: Catherine Bell. Daily Mirror Keystone, News Chronicle

I WAS THERE! Eye Witness Stories of the War

How We Mastered the Infernal Magnetic Mine

Hitler boasted of a "secret weapon" which would sink our ships and leave us guessing. The story (written specially for THE WAR ILLUSTRATED) of how a small party of R.N. personnel tackled this serious challenge is here told in full, for the first time, by Lieut.-Commander John G. D. Ouvry, D.S.O., R.N., of H.M.S. Vernon. He received his decoration for the payed on that occasion. Lieut.-Commander R. C. Lewis, R.N., also was awarded the D.S.O., and Chief Petty Officer Baldwin and Able Seaman Vearncombe the D.S.M. (See illus. p. 779, vol. 6.)

N September 10, 1939—seven days after the outbreak of war—the steam vessel Magdepur was sunk in low water off Orford Ness. The casualty was attributed to an enemy mine; and mine-sweepers stationed at Harwich were sent out to clear that area. For hours they swept, but no mines were forthcoming. Later, another vessel was seriously damaged by a mysterious explosion while passing down the same channel.

A significant fact came to light. The hull of this ship had not been pierced, yet the underwater explosion had been severe enough to put her machinery out of action. This suggested to the experts that a noncontact type of mine—magnetic, or acoustic, or actuated by some other means—was being used by the enemy. Casualties continued to occur round our coasts, usually at the entrance to big ports. By the first week of November it was apparent to the authorities that if the Germans could lay this mine in sufficient numbers in our seaways the result to this country would indeed be serious.

On the night of November 21, 1939 German aircraft flew up the Thames and other estuaries, dropping into the water long cylindrical objects attached to parachutes. This, then, was the Nazis' method—or one of their methods—of depositing their infernal "secret weapon." As one of the staff of the Mines Department of H.M.S. Vernon (the R.N. Torpedo and Mining School) I was awakened at 3 a.m. the following day and instructed to catch the first available train from Portsmouth to London. I went direct to the Admiralty, where I was informed that I was required to remain at immediate notice to endeavour to discover the type and mechanism of these mines. Speed in this task was of the very greatest importance, for our sea traffic was in danger of being brought to a standstill.

Late that night, tired out with the strain of hours of waiting, I went to a London hotel to sleep. I was wakened soon after midnight to receive an urgent message from the Admiralty instructing me to return there at once. I did so, and met Lieut.-Commander Roger Lewis, R.N. He told me that aircrast had again flown over the Thames estuary, that night, and had dropped an object, probably a mine, off Shoeburyness. Lowwater there was at 4.30 a.m., and it was likely that the mine would then be exposed.

Our orders were to locate it, attempt to render it "safe," then collect it for further investigation at the Mine Experimental Department of H.M.S. Vernon, at Portsmouth. We went by fast car to Southend, through the darkness and the rain. At Southend we joined up with Commander Bowles, R.N., on the staff of the Naval Officer in Charge, Southend. We continued our journey to Shoeburyness, where Commander Maton (attached to the Experimental Department), who was to provide guides and all facilities, had already collected a small party of helpers.

Together we headed seaward, filled with excited anticipation. Guided by torches, we slithered for about 500 yards over slimy mud and sand. Occasionally we splashed knee-deep through pools. We strained our eyes in the darkness. Suddenly one of the guides, a private soldier who had seen the airborne object drop into the water in the early hours of the night, shouted, "There it is, sir!" It was a very thrilling moment when the light from the torches, concentrated in the direction he indicated, revealed a glistening object—with

horns. It was our intention to carry out a preliminary examination, take fiashlight photographs, then lash the mine down until the daylight lowwater period, when we would do our best to render it "safe."

Lewis and I, having divested ourselves of metal items likely to influence the mechanism of the mine, approached it, leaving the remainder of the party in the rear. The external fittings of the aluminium alloy cylinder—it was seven feet long and 26 inches in diameter—were secured by screw rings requiring a special type of pin-spanner to remove them. We took paper rubbings, to serve as patterns from which suitable tools (of non-magnetic metal) could be fashioned.

If We Were Unlucky . . .

Having lashed the mine securely and obtained our flashlight photographs, we set off back to our quarters. Confirmation that we really had found what we had been sent to look for came with the discovery of a parachute stretched out on the mud: a parachute fitted with an automatic-release device which came into operation after the mine had entered the water. Lieut.-Cmdr. Lewis and I had a very early breakfast, but it was not until early afternoon that the state of the tide permitted us to return to the scene of operations. Petty Officer Baldwin and Able Seaman Vearncombe, who had been with me on previous expeditions, had now arrived from Portsmouth; and soldiers with a caterpillar tractor waited inshore to cart off the mine as soon as we had finished.

We decided that Chief Petty Officer Baldwin and I should endeavour to remove the vital fittings; Lieut.-Cmdr. Lewis and Able Seaman Vearncombe to watch from what we considered to be a safe distance and make detailed notes of our actions and progress—for reference in case of accident. There was a possibility that the mine had devices other than the magnetic one, which added to the hazard. If we were unlucky, the notes which the two watchers had taken would be available for those who would have to deal with the next available specimen.

I first tackled an aluminium fitting sealed with tallow. In order to use one of the special spanners which had been rushed through (by Cmdr. Maton) in the local workshops for us, it was necessary to bend clear a small strip of copper. That done, we were able to extract this first fitting. Screwed into its base, when we drew it clear, we found a small cylinder—obviously a detonator, for in the recess from which the fitting had been withdrawn were disks of explosive. These I removed. This mysterious fitting proved, to be a delay-action-bomb fuze; it was necessary for the airman to tear off the copper strip referred to (before releasing his load) if bomb not mine was the requirement.

Before we could proceed further we had to call on Lieut-Cmdr. Lewis and A.B. Vearncombe for assistance to roll the mine over, this being firmly embedded in the hard sand and held fast by the tubular horns. The fact that the mine did not, and was not intended to, float explains the non-success of our minesweepers in their efforts to secure a specimen. Lieut.-Cmdr. Lewis and A.B. Vearncombe from then onwards lent a hand with the stripping-down. Dr. Wood, Chief Scientist of the Mine Design Department, H.M.S. Vernon, arrived in time to witness



H.M. THE KING listens to Lt.-Cdr. Ouvry's description as he inspects a German magnetic mine (see accompanying text). Hitler's "secret weapon" bore the date 1938.

Photo, Topical

the later stages. We were somewhat startled to discover yet another detonator and priming charge. Having removed all the external fittings, we signalled for the caterpillar tractor and soon had the mine ashore.

We had a shock—and a laugh when the shock wore off—before we had stowed away all the temoved gadgets. We stopped for a breather on the foreshore, and one of the helpers carrying a rather heavy fitting put it down on a stone. It immediately commenced to tick noisily. The company dispersed like lightning! That most disturbing ticking, we presently discovered, came from clockwork mechanism within the heavy fitting; actuated by pressure, it happened to rest on its starting spindle. This proved to be a delay-action device, designed to keep the mine safe until the clock setting had run off.

Next day the body of the mine and the components we had removed were sent to H.M.S. Vernon. When we arrived there we were conscious of a somewhat tense atmosphere. The complete specimen had been locked up in a laboratory outside which stood a sentry with fixed bayonet. Responsibility for further investigation—searching of the actual interior—now passed to Dr. Wood and his two assistants, Mr. W. F. B. Shaw and Mr. H. W. K. Kelly. These experts worked on into the night, until they had laid bare the final secret of this destructive device. They found in the mine's interior an intricate and beautifully made piece of electromagnetic apparatus; this, actuated by the passage above it of a steel hull, would fire a detonator which in turn would "set off" the 660 lb. of high explosive packed into the forepart of the 1,130-lb. mine. It was not long before a counter-measure was devised; our metal-hulled ships were fitted with degaussing coils—anti-magnetic cables—which rendered Hitler's "secret weapon" innocuous.

I Was One of the Nine Who Came Back

The closing scene in the glorious stand of the 155th Field Battery R.A. on Feb. 26, 1943, in Tunisia, was briefly described in page 77 of THE WAR ILLUSTRATED by one of the nine survivors who got back to the British lines. The conclusion of Gunner Bryce's story (contained in a letter to his wife) appears here, by arrangement with the News Chronicle.

THEN we were finished at last I found myself alone and surrounded by Germans on all sides. It was dark. A miracle happened and it poured with rain, making it pitch-black so that you could not see in front of you.

Some Germans passed within one yard of me. My only means of getting away was to crawl through a river, over a field (Germans occupying this spot), and then over a road where German tanks were spaced every 20 yards apart. After taking four hours to crawl through the river (I was so weary I nearly fell asleep lying in it) I came to the road where the tanks were.

My heart was in my mouth as I slowly began to wriggle across the road with both the sentries on each tank looking at me. To me it seemed ages before reaching the other side, although it was only four yards wide. Every second I expected one of them to take a shot at me. After getting across the road I rolled in a ditch on the other side. Another four yards on I had to cross a single railway track which, being higher up, was more exposed. exposed.

That was also quite a job, as the stones which the track lay on were all loose (a couple did roll down and it sounded to me like the world crumbling). While halfway over the track a Very light shot up—right from the

spot I had been in on the other side of the road. I thought I was sure to be spotted, but my luck held.

Getting over the road and the railway was a hell of a job, as my clothes were squelching with mud and water every time I moved. Anyway, after the railway, I continued crawling in the stream until the dark blacked me out (it was only the pitch-black night and rain that enabled me to do it). I was able then to get up and start hiking to the nearest mountains. I thought once up in them I would be fairly safe.

many wild dogs (Arab ones) start howling that I decided to keep going during daytime. This I did and after four days—from Friday

till Tuesday—I arrived at our base, just a bit worn out, dirty, etc., but after a wash, shave and some food was as right as rain again. Luckily I had my water-bottle with me and a bar of chocolate—which kept me going those four days (the chief thing I missed was a nice cup of tea).

I'll always remember on the Sunday afternoon around dinner-time I laid down to rest and, a bit peckish, thought of you back home and pictured you just having dinner—and all the lovely dishes I could be eating.

I went over several lots of ranges before out (it was only the pitch-black night and rain that enabled me to do it). I was able then to get up and start hiking to the nearest mountains. I thought once up in them I would be fairly safe.

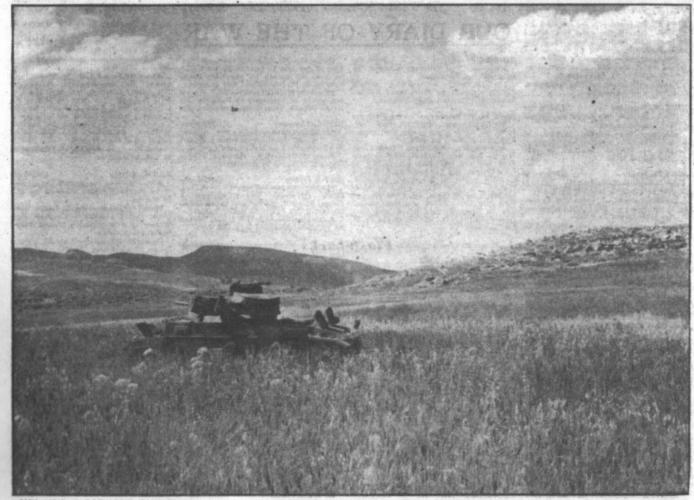
I did intend to lay up during daytime and move by night, making for a British base about 40 miles away. Anyway, during that night, clambeing over rocks, etc., made so

A Norwegian Girl, I Was a Slave in Poland

Dreadful conditions are imposed on Norwegian boys and girls, between the ages of 14 and 18, sent by the Nazis to work on the land in Poland. Here Kari, who recently escaped to the safety of Sweden, tells her own grimly pathetic story.

NDER German pressure I was weak enough to join the Quisling Youth Service in Oslo. I soon found out what type of organization it was, and tried to get out of it. My punishment was an order to work in Germany. In June of last year I left Oslo, with about 40 other girls

who had also "volunteered" for Germany, however, but to Poznan in Poland. Constantly under the observation of Nazi "fuehrerinner," or girl leaders, there was no opportunity to escape from the train as we went through Sweden. On arrival in Poznan



SIDI NSIR, NORTHERN TUNISIA, scene of the 155th Field Battery's glorious resistance in February 1943, which has been described as one of the most gallant actions in the Battle of Tunisia. Gunner Bryce (whose portrait appears in page 77) tells his dramatic story in the accompanying text Taken just N. of Sidi Nsir, near Beja, the above photograph shows a knocked-out German tank, one of the many used by the enemy in overpowering force to crush the heroic British defence.

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girls, but I was sent farther afield with 18 others to a camp about 20 miles from Rosshöhe.

We were led into a school building which was filled with beds, with straw mattresses and one blanket. We were afterwards issued with working clothes, and set to work almost immediately filling in trenches. Our day began at 4.30 a.m., when we had breakfast consisting of skimmed milk soup, ersatz coffee, and two pieces of bread. Then followed a Nazi parade, after which work began. We had just a short time for a dinner of vegetable soup and potatoes, and after we finished work at 6 o'clock we were given a similar meal. Once a week we got meat, but never any fish. We were made to go to bed at 8.30, but it was almost impossible to sleep because of the rats, which ran over the beds all night, and the bugs and lice.

LATER in the year we worked in the fields and never had any free time for ourselves, with the exception of Sundays. One evening a friend and I met a Polish boy, but he was afraid of us at first because he thought we were German. We soon convinced him of his mistake, and went with him to his home, where we learned that the Poles' rations consisted of five pounds of potatoes a week, a small amount of bread, and no milk. We crept back to the camp thinking that our iMegal visit had not been noticed, but a girl Nazi heard about it, and both of us were confined to our room for 14 days. We had three meals a day. But each of them consisted only of dry bread, ersatz coffee and unpecled potatoes. We heard afterwards that, because of what we had done, collective punishment was imposed on the whole camp, the girls being set to work to dig field latrines after their normal day's work.

After the 14 days' punishment was up I was ill, and laid up for a week with a high fever; but no doctor came nor was any

IUNE 23, Wednesday. 1,390th day
Air.—Spezia, Italian naval base, raided
by Lancasters returning from N. Africa
to England.
Mediterranean.—Pozzallo (Sicily) attacked by Malta-based fighter-bombers;
Catania attacked by Wellingtons.
Pacific.—Macasar, Jap base in Celebes.

Pacific.—Macassar, Jap base in Celebes, attacked by Allied bombers.

U.S.A.—Kiska (Aleutians) subjected to six U.S. air attacks. General.—H.M. the King arrived back in England (by air) from N. Africa.

IUNE 26, Saturday 1,393rd day Mediterranean.—Naples target for concentrated R.A.F. night assault. 1,393rd day

Burma.—Jap positions near Kalemyo attacked by R.A.F. Blenheims; U.S. bombers raided targets N. of Shwebo. U.S.A.—U.S. bombers made seven attacks on Kiska (Aleutians).

JUNE 27, Sunday 1,394th day JUNE 27, Sunday

Mediterranean.—Eleusis and Hassani
airfields, near Athens, pounded by U.S.
bombers. Malta-based aircraft attacked
Gerbini airfield, Sicily. Wellingsons
attacked San Giovanni in toe of Italy.

U.S.A.—Hammering of Kiska (Aleutians) continued with six attacks by U.S.
aircraft.

JUNE 28, Monday 1,395th day Air.—St. Naxaire U-boat base bombed, and airfield of Beaumont le Roger. Cologne heavily bombed (117th attack), also

Mediterranean.—Leghorn, N. Italy, subjected to concentrated nine-minute attack. Reggio di Calabria and Messina hombad.

Australasia.- Darwin received its 56th

Burma.-Akyab attacked by R.A.F.

we found nine camps for Norwegian boys and attention paid to me. When I was well again it was decided that my friend and I should be separated, and I was sent to another camp, at Pappelhausen, where there were 17 others living in a rat-infested school building. There was no paraffin for the lamps and after



GEOFFREY HOSFIELD, 20-year-old Mer-GEOFFREY HOSFIELD, 20-year-old Merchant Navy engineer, returning to England from a Calcutta hospital, was suffering from spinal injuries and was encased from hips to shoulders in plaster of Paris. His voyage was almost over when his ship was torpedoed in the Atlantic at midnight. In spite of his terrible handicap Hosfield halped to lower a boat, but this subsequently turned over and he swam back to the sinking ship. The last boat was just pulling out, but he managed to reach it before the doomed ship finally sank.

we had finished our work we had to sit about in the darkness. We repeatedly had lectures on Quisling, and sometimes were sent to the nearest town to hear lectures on Hitler and his new order.

We Norwegians were strictly forbidden to speak to the Jews and Poles who were also working on the land, and we were told that if any of them failed to salute us when they saw us we had to report the matter. But none of us ever did that. If any of them were late for the parade in the morning they were beaten with sticks. They nearly all lived in the near-by farms, the owners of which had been torn away from their families and sent to other parts of the country. These workers received no pay and worked 11 hours a day. The Polish children went to German whoels but they were not allowed even to schools, but they were not allowed even to speak with the German children there.

I was sent to Poznan shortly afterwards for an I was sent to Poznan shortly afterwards for an operation for appendicitis. Then I was sent back to work too soon, and became seriously ill and was in hospital for another two months. When I returned to the camp it was bitterly cold. We had no extra clothes, and we could not have done much work in the fields, anyway, because of the snow. So work stopped for the time being, although the Poles and Jews were made to go out in the usual way. I had to visit the hospital again one day, and a young Pole came with me, both of us in the charge of a Nazi. But the Pole had no money to pay his hospital fees, so they sent him back. On the way he died.

Then I was told that because of my illness.

Then I was told that because of my illness I might go home to Norway for a month's leave. I went to Oslo, and at the end of the time was summoned to return to Poland. As the train passed through Sweden, however, I was able to evade the Nazi leaders and jump off the train. I gave myself up to the Swedish authorities, and now (it seems like Heaven!) I am at last safe from the Nazis.

JULY 3, Saturday 1,400th day Air.—Kalk and Duetz, Cologne indus-trial districts, bombed; Hamburg and Ruhr targets also attacked.

OUR DIARY OF THE WAR

JUNE 29, Tuesday

Air.—Le Mans (France) attacked by large force of Fortresses.

Mediterranean.—Comiso airfield (Sicily) attacked by Malta-based fighter-bombers; Messina (Sicily) bombed.

JUNE 24, Thursday

Air.—Elberfeld, W. half of Wuppertal
(Ruhr), heavily raided.

Mediterranean.—Sedes airfield, 6
miles S. of Salonika, attacked by Liberators.
Argets in Sardinia attacked by Jobomber-fighter force.

JUNE 25, Friday

1,392nd day

Air.—Bochum-Gelsenkirchen (Ruhr)
district very heavily bombed by R.A.F.
Mediterranean.—Messina (Sicily) battered by more than 100 Flying Fortresses.

Maples again raided by R.A.F.
U.S.A.—Kiska (Aleutians) subjected to six U.S. air attacks.

General.—Mr. Churchill received Freedom of the City of London at the Guildhall: In his speech he predicted heavy fighting in Mediterranean and elsewhere "before the leaves of autumn fall." Award announced of Viscounty to Field-Marshal Sir A. Wavell, Viceroy-designate of India.

JULY 1, Thursdoy
Mediterranean.—Palermo (Sicily)
and Cagliari (Sardinia) bombed; Biscari
airfield attacked by Malta-based fighters.
Australasia.—Viru Harbour, New
Georgia, captured by Americans.

JULY 2, Friday
Mediterranean.—Trapani (Sicily),
Olbia (Sardinia), and Castelvetrano
(Sicily) bombed. Airfields of Lecce, Grottaglie and San Pancrazio (Italy) bombed.
Australasia.—American troops landed
on Vangunu Island, and captured Vura.

Ruhr targets also attacked.

Mediterranean.—Sardinian and Sicilian airfields bombed.

Australasia.—Allied warships, supported by dive-bombers, bombarded Wickham Anchorage, Vangunu Island, in New Georgia. Jap raids on Nassau Bay and Bena Bena (New Guinea): Kendari (Celebes) heavily raided by Liberators; Kupang (Timor) attacked by medium bombers. Australians and U.S. forces linked up in New Guinea.

U.S.A.—Kiska (Aleutians) again bombed by U.S. aircraft.

Air.—Le Mans, Nantes and U-boat base of La Pallice (France) attacked by U.S.

JULY 4, Sunday

Fortresses.

Mediterranean.—Small British landforces raided airfields in Crete at night
destroying aircraft on the ground, before
withdrawing safely.

General.—General Sikorski, Polish
Prime Minister and C.-in-C., among 18
people killed in a Liberator which crashed
just after-leaving Gibraltar.

1,401st day

JULY 5, Monday

JULY 5, Monday

Air.—Announced first air train (fully-loaded glider) to cross any ocean towed from Canada to Britain by a plane of R.A.F. Transport Command.

Australasia.—Allied warships bombarded Bairoko Harbour (New Georgia) and Vila Harbour (Kolombangara Island).

American forces landed at Rice Anchorage, New Georgia Island, and at Zanana, near Munda, after American warships had shelled Jap bases on both sides of Kula Gulf.

Russian Front—German houseless.

Russian Front.—Germans launched offensive in Kursk, Orel and Bielgorod sectors; 586 German tanks and 203 aircraft disabled or destroyed.

Australasia.—Japs suffered considerable damage in naval battle in Kula Gulf (Solomons). Announced that Americans captured Vangunu Island.

Mediterranean.—Gerbini airfield (Sicily) pounded by Liberators. Palermo bombed by Wellingtons.

Russian Front.—433 more German tanks and 217 aircraft damaged or destroyed by Russians. Enemy made slight advances in Bielgorod area. JULY 6, Tuesday 1,403rd day

--- Flash-backs

1940 June 26. Russians bombed Bucarest, Ploesti and Constanza (Rumania). June 30. Germans captured Lwow June 23. Mr. Churchill announced Britain to fight on.
June 24. French armistice with (Poland). July 3. Palmyra (Syria) captured by

British.

Italy signed. Hostilities in France June 25. ceased.

July 4. General Gazzera, supreme June 28. Gen. de Gaulle recognized as "Leader of all Free French-men." July 5.

July 1. Announced French Government established itself at Vichy. Jersey and Guernsey taken over by Germans. July 3. French

warships in British ports taken over.

July 4. Italians occupied Kassala June 25. Russians evacuated and Gallabat on Sudan frontier.

July 5. Pétain Government broke off June 27. Mr. Churchill arrived back diplomatic relations with Britain.

June 24. British withdrew from Sollum and Sidi Omar to Mersa Matruh (Egypt).

in London after week of conferences in U.S.A.

commander of remaining Italian forces in Abyssinia, surrendered.

1942

Germans claimed to have reached River Dnieper (Russia).

June 23. Germans crossed River June 29. Mersa Matruh evacuated

1941

Bug (Poland).

June 24. Germens took Brest- July 1. Sebastopol captured by the Litovsk, Kaunas and Vilna.

Germans.

A the time of writing the Second Front has not been launched—at least there has been no invasion of

been no invasion of the Continent, which is what is meant, I understand, by the phrase we so often see scribbled on the walls or above those oh so ancient photographs in the railway carriage! But quite a number of people seem to be expecting it daily, almost hourly. June 22 was the date given out by the Germans a short time ago as being that on which we were going to attack them. But when the anniversary of Hitler's invasion of Russia came and went, "the day" was moved on to July 3. That day too has gone by; but if the German prophets are at all like our own, they will have swallowed their disappointment with a perfectly good grace.

You must be hardened to that sort of thing if you set up in business as a rival of Old Moore, and you cannot but be cheered by the reflection that prophecies are forgotten almost as soon as they are uttered. Only those who keep a file of newspapers, or a folder of clippings, can realize how wrong—how generally wrong—the prophets have been. And the "armchair critics" are in the same boat, if I may be forgiven the mixture of metaphors. I happened recently to come across an article cut from one of the London evening papers, bearing a date in last January, in which the writer, a well-known commentator, makes the statement that "not many more than 150,000 men are holding at arm's length in Africa the flower of British and American strength, perhaps 900,000 men." I do not know how near or wide of the mark the latter figure is; but I do remember that the final count revealed that 291,000 Germans and Italians were put "into the bag" in Tunisia. Just one instance of many in which our "well-informed critics" have been—shall we say, misinformed.

Two hundred million cigarette ends are thrown away every day.
You must take the figure on trust: the only authority given by Miss Lillen Wilkinson, when she made the statement recently, was an "investigation." But there is no doubt plenty of evidence to support her further statement that of the thousand

further statement that of the thousand first which are reported every day half are caused by the careless disposal of cigarette ends and used matches. Naturally enough, Miss Wilkinson, as Parliamentary Secretary to the Ministry of Home Security, is deeply concerned over this matter of fires caused through sheer carelessness. Never have people been so keen on anything as getting the War won at the earliest possible moment, yet (she points out) there are all too many cases of factories being destroyed by fire, not to mention commodities in private homes, to replace which takes up valuable shipping that it is respect their record is a blameless one, but as a fourth leader in The Times put it dishifully a few days ago, the cigarette ends themselves are at least guilty of contributory negligence. They cling to life with a touching tenacity, it read. "We may rind them underfoot squash them and crush them, reduce them to their very elements, and yet rough hew them how we will,' they will not say die. The vital spark refuses to out their frame, and several minutes after their presumed decease an unmistakable and pungent odour and a little coil of smoke proclaim that mangled they still live."

Momen in khaki who man our A.A. and searchlight sites all over the country; and good is it to know that a regular distribution of books is now being made to scores of the more isolated stations. More than fifty library vans are now in use, driven for the most part by volunteers wearing the red triangle of the Y.M.C.A. The vans are equipped with an initial stock of 1,000 volumes; and a typical day's run entails calling at ten sites on a 70-mile tour and distributing 150 books. Seventy per cent of the books borrowed are Wild West and detective yarns, but there are often some

FIELD-MARSHAL SIR A. WAYELL, G.C.S., C.M.G., M.C., whose appointment in succession to Lord Linitelpow as Vicercy of India was announced on June 18, 1943. He will take over his dwire in October. On June 30 the King approved the conferring of a Viscounty upon him.

Photo, Topical

surprising demands. One librarian received request after request for "heavy" political books from two sergeants on separate A.A. sites; eventually she found that they were carrying on a long-distance argument with the help of information from the borrowed books. There are also library and music vans, the sides of which can be lowered to form a stage; and a piano, microphone, loudspeaker and gramophone are fitted. A small record library is carried from which the men can make their choice. One woman driver, we are told, arranges music "quizzes," and gives cigarettes as prizes.

How does the pay of a man in the Services compare with that of his contemporary in civilian life? That's a very difficult question to answer; how difficult was shown by Capt. Russell Grenfell, R.N. in a recent issue of the Sunday Times, of which paper he is the Naval Correspondent. In a White Paper published last August it is stated that it is "reasonable to suppose" that the provision of the Service man's board, lodging, clothing, laundry, health and unemployment insurance costs the country 35s. a week, which can therefore be brought into the total of his gross emoluments. But this figure is

considerably higher than the corresponding assessments made in 1914 and 1923, even when corrected for differences in cost of

differences in cost of living, and it is noteworthy that the billeting charge allowable against the highest-paid Civil Servant is only 21s. This evidence of the Treasury's solicitude for its own people is supported by the fact that in making up the ex-Civil Servant conscript's pay there is no deduction in respect of emoluments in kind.

In the estimate of the soldier's cost of living the item "accommodation" works out at 12s. a week. As Capt. Grenfell says, "it seems rather high rent to levy on men living under water in a submarine or on a long Atlantic patrol in an aircraft, to say nothing of those drifting about on a raft in a rubber.

of those drifting about on a raft, in a rubber dinghy, or sleeping under a ground sheet on land. For the wealthier officer the place on the raft or in the dinghy is naturally more expensive, the charge being in the region of 45s. In both cases the faithful watchdogs of the Treasury have remembered to include the estimated income-tax charge on these benefits."

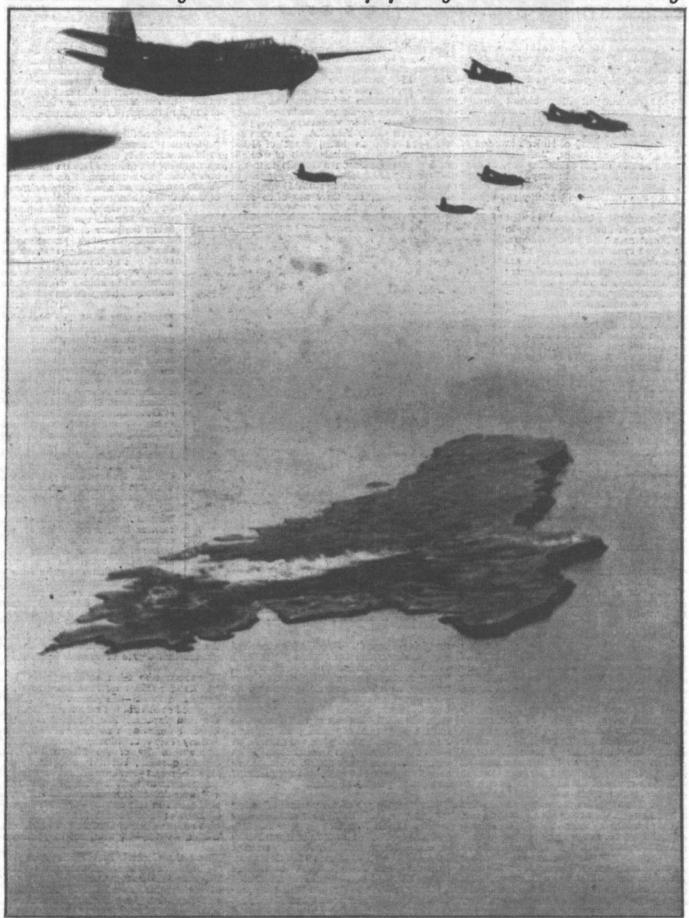
But in spite of all the Treasury's ingenuity the Service man's pay cannot be made to approximate to that of a civilian. Comparing the White Paper's estimate of the total carnings of the Service man of three years' standing, married with two children, with those of the average workman over 21, married or single, in Government industrial establishments, we get (the figures are for July 1942, the latest available): Service man, £4 12s. 9d., of which £3 9s. 9d. is received in cash; workman, £6 2s. Moreover, between October 1938 and July 1942 the workman's earnings increased by 46s. 9d. a week—more than double the whole cash pay of the unmarried Army conscript. The latter receives 21s., representing an increase of 14s. a week since 1797, a matter of 146 years. Another interesting fact unearthed by Capt, Grenfell is that the pay of most Naval lieutenants (under £6 a week for the unmarried officer) has increased by 45s. 6d. a week since 1840. Again, while the average of civilian remuneration has risen by 40 per cent in the last four years.

40 per cent in the last four years, the basic pay of full admirals has not quite reached that degree of increase since 1816.

Everyone who takes an interest in Far Eastern affairs must have heard of the Tanaka Memorial—the document which is supposed to contain the recommendations of the then Japanese Prime Minister to his Emperor following a conference of civil and military chiefs at Mukden in July 1927. The authenticity of the Memorial is not beyond question, but it is a fact that the courts of recent years have often shown a close resemblance to what has been described as a "blueprint of Japanese expansion." Its publication in this country—Japan's Dream of Empire: The Tanaka Memorial, Edited with an Introduction by Carl Crow (Allen & Unwin, 4s. 6d.)—is, then, not inopportune.

From the General Post Office came the other day the announcement that civil postal services have now been restored to the occupied territories of Tripolitania and Cyrenaica. The announcement can be regarded as of historical importance, since it means that postal communications are now possible to the whole of the African continent. As a matter of interest, postal communications were never entirely severed with Tunisia.

Air Onslaught on a Stepping-Stone to Italy



R.A.F. BOSTON BOMBERS ATTACK LAMPEDUSA, the little Italian island S.E. of Pantelleria (see p. 70), which surrendered on June 12, 1943. This photograph reveals the twelve square miles of the island—site of an important Axis submarine base—at the height of the aerial bombardment. Dense smoke-clouds billow from fiercely burning targets.

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