

Vol 10 *The War Illustrated* N° 238

SIXPENCE

AUGUST 2, 1946



FROG MEN EMERGING FROM THE SEA AT ST. IVES, Cornwall, provided an exciting distraction for holiday-makers—the youngest of whom eagerly accepted a "lift." Bearing a finned trophy encountered on their undersea route, they were taking part in a demonstration by a Landing Craft Obstruction Unit in aid of the Commando Benevolent Fund. Their gallant work in connection with the Normandy landings on D-Day will long be remembered. See also pages 353 and 361, Vol. 9. *Photo, Mirror Features*

Edited by Sir John Hammerton

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Britain's Rising Exports Presage Better Times



FOR THE FIRST TIME SINCE THE WAR figures showed that Britain's monthly export volume had, in May 1946, exceeded that of the corresponding period in 1938, by eleven per cent. This followed an upward trend since January 1946, when only 74 per cent had been attained. February showed 87 per cent, March 90 per cent, and April 100 per cent. Principal contributors responsible for the May increase were machinery and transport industries, such as this locomotive works at Glasgow (1), where an engine for export to India is being lifted into testing position. India's order for £1,000,000 of road-making machines included steam-rollers, the rollers of which are protectively packed ready for shipment (2). Outstanding exports for the period included 5,622 cars against 3,677 in 1938; many went to Singapore, for unloading at Collyer's Quay (3). Other export figures for May compared with those of the same month in 1938 (in parenthesis) were: commercial vehicles and chassis 4,886 (1,190); rail wagons and trucks 17,749 tons (3,025); electrical generators 2,156 tons (858); and machine tools 3,927 tons (2,010).

Photos. British Official, Topical, and Central Press

IN the spring of 1943, when the war's end seemed even farther away than it was, Britain's Prime Minister, Mr. Winston Churchill, went to Washington to meet another great wartime leader of free men, President Roosevelt. With their Chiefs of Staff they discussed the final shape of the amphibious operation that alone could place the Allied armies back in western Europe. Among the select and brilliant band of planners, the word "Overlord" rose up like a star. For those who thought mainly of the sea there was another word that both guided and inspired them, "Neptune."

"Overlord" covered the whole operation of invasion, "Neptune" its naval phase. Following these two bright stars, which held the destinies of many peoples, men laboured day and night for fourteen months. They overcame immense difficulties; no problem was too great, no consideration too small. Then, in the first week of June 1944, with more at stake than thousands of men's lives, they put the results of their long and arduous labours to the test.

Few of those who took part in the main attack on Hitler's stronghold knew more than the shape of their own tiny piece in the great jig-saw. In fitting that in, they were prepared to strive to the utmost, but "Overlord" and "Neptune"—the whole puzzle—remained as remote as the stars to them. They did not know the answers, and some of them never will.

How Could We Hope For Surprise?

At the beginning of that fateful year there were rehearsals off our shores which the Germans were able to approach closely enough to sink at least two L.S.T.s. They did it with E boats. It was but an incident of the preparation, but men who had known such incidents naturally wondered what would be the outcome of "the real thing." How could we hope for surprise? How could we get on to beaches thickly strewn with obstacles and mines? How could we hope to maintain supplies without a major port in our hands? The queries, if one thought for a little while, were endless.

Today it is possible to answer many of those questions. Neither the answers nor the smooth success with which our plans were carried through detract one iota from the magnificent achievement of D and its plus days. Here we are considering action rather than planning; and first credit, perhaps, should go to those intrepid men who walked the Normandy beaches while watchful Germans still manned their front line in full strength. In small boats and by night they pulled on to the soft sands, scrambled ashore and made careful investigation of the first obstacles the invasion armies would have to overcome.

BEACH OBSTACLES were still being erected by Germans along the French coast as an anti-invasion measure in the first days of June 1944. Spotted by a R.A.F. reconnaissance aircraft, a working-party is seen scattering for cover.

Photo, British Official

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The Invasion of Normandy

By **GORDON HOLMAN**
From the headquarters ship H.M.S. Hilary the author, a war correspondent who was twice mentioned in dispatches, saw the troops go into attack on June 6, 1944.

Their reports added detail to the information obtained by daring R.A.F. reconnaissance flights. The flyers brought back photographs, taken only a few feet above the beaches, which revealed clearly the explosive charges fixed to the tops of the angular metal obstructions; before D-Day we knew that many of them were French shells adapted for a new defensive purpose. It was impossible to hide from the enemy—indeed, little attempt was made in those latter days—the fact that invasion was coming. Security, therefore, was chiefly concerned with the two vital secrets of time and place.

SOUTHERN and western England were steadily built up into one vast camp of armed men, with guns tanks and vehicles almost beyond number. There can be little doubt now that security was maintained to an amazing degree. Field-Marshal von Rundstedt has said "We could not tell where the landing would come." That we more than planned for success on D-Day is revealed by his further admission that should always give satisfaction to the men who carried out the pre-invasion air offensive against the enemy. "Our reserves were not so dispersed that I could not have met the D-Day landing, even though it surprised us, except for the fact that we had no mobility, and could not bring up our reserves," the Field-Marshal, as a prisoner of war, said. "Between Paris and Rouen there was not a single bridge across the Seine."

A river held up the Germans. Four years earlier, the narrow straits between England and France had proved an unsurmountable barrier although the defences on our shores were of the flimsiest character. In the face of long preparations and a knowledge gained in grim and deadly battles, we had to cross eighty to a hundred miles of sea to deliver our assault. Fortunately for us

history has proved that land power and sea power are two entirely different things. But they can be made to function together. The damaging raids of our Special Service troops had left no doubt of this in Hitler's mind. But the sea and its ways cannot be mastered through text books, and even the thoroughness of the Wehrmacht applied to the German Navy could not give that understanding of the sea which is a natural asset of an island people.

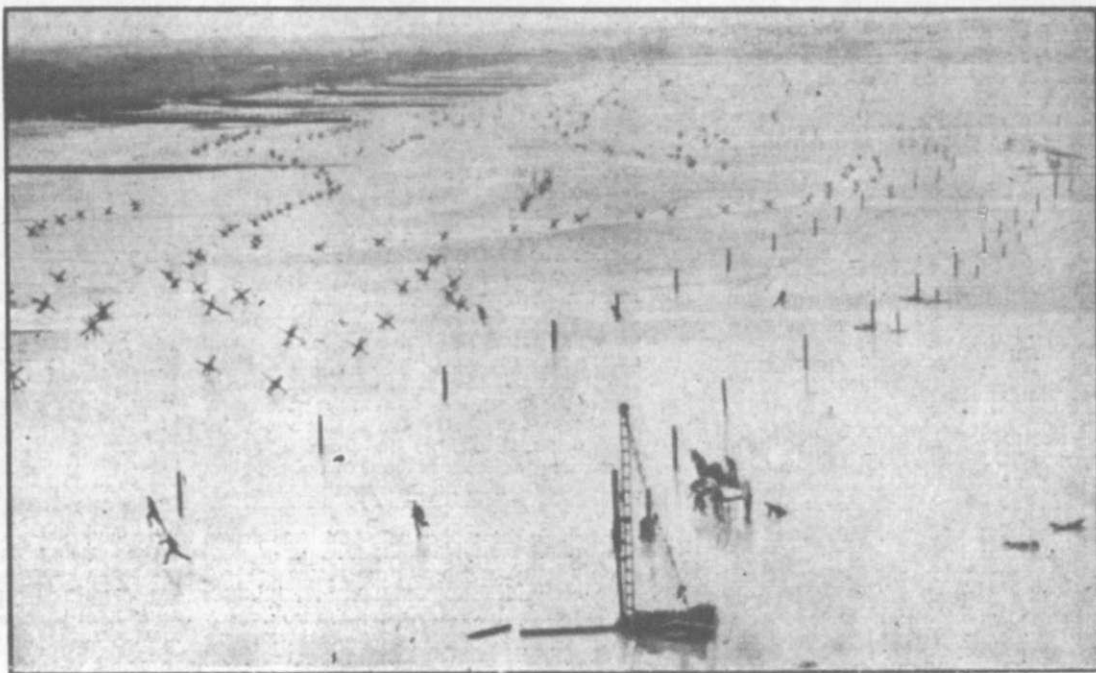
For the invasion, it had to be interpreted into the handling of ships. There were leaders of unrivalled knowledge, such as the late Admiral Sir Bertram Ramsay, C-in-C. of our naval invasion forces, to carry on our naval tradition. But by far the greater number of those who handled the 5,143 vessels that engaged in the great assault were men from civilian life. Bank clerks and butchers, schoolmasters and stockbrokers, bus drivers and garage hands took the little ships in. And, by some instinct, they had a sounder conception of sea power than the German generals who disposed the forces waiting on the farther shore.

Strong Tide a Natural Obstacle

The strong tide flowing up and down the English channel was a natural obstacle to the invasion. It created many and varied problems. What would suit at one state of the tide was quite useless at another. To the last, the Germans probably believed that we could only overcome those difficulties by capturing a port. And, as we saw later in Cherbourg and elsewhere, they made quite certain that any port we did succeed in capturing would be useless for some time.

Between the ports along the gently sloping beaches of the Bay of the Seine they put down their mines—contact mines, drag mines, magnetic mines and other varieties. Behind those they had their steel and wooden stakes and their long scaffolding of steel tubes. On the beaches were buried mines, and then came sunken concrete sentry boxes, pill-boxes, gun emplacements, barbed wire, mined fields and roads and siege guns.

To assault this massive barrier the planners built up five Task Forces. The three to the east of the assault area were British and, for "Operation Neptune," came under the direct command of Vice-Admiral Sir Philip Vian.



Great Stories of the War Retold

The two to the west were American and came under the command of Rear-Admiral Alan G. Kirk, U.S.N.

The first problem was to get these forces safely, and at the same time, into the assault area. Considering the vessels in three classes alone, the warships had two or three times the speed of the big transports, and the transports had a similar advantage over the L.S.T.s. Broadly, the major problem in co-ordination was overcome in this way: five channels were swept from a point 13 miles out to sea from the Isle of Wight and then, half-way to France, each channel was divided into two. This permitted the faster ships that had started later to overtake the slower units and fit into their appointed positions. Minesweepers headed the whole procession, and with them went the dan-buoy laying craft which marked the channels like so many streets.

Five British regiments and three American units handled these strange fighting monsters on D-Day. The British regiments were the 4/7th Dragoon Guards, the 13/18th Hussars, the Nottinghamshire Yeomanry, the 1st Canadian Hussars and the Fort Garry Horse. The Germans were dumbfounded by the D.D.s (Duplex Drive) and readily surrendered to them.

Novelties in the Great Build-Up

Their discarded "skirts" were to be seen in the squares and streets of such beach towns as Courseulles and Bernieres, and days after the assault I heard French villagers arguing as to what they were. The general view was that they were some kind of collapsible boat, and a diligent search went on for the "bottoms" that would have filled the large holes which were, in fact, the size and shape of the tank hulls. Of four hundred

fire from the L.C.T.s that brought them in. While the minesweepers went rapidly to work out in the wide anchorage, demolition teams operated on shore. Their task was one of the most unpleasant in the whole invasion. Going in with the first wave, they had to work against time to clear the beaches for the strong support forces coming just behind. While the initial battle still raged, they had to deal with mined stakes and dispose of the live French shells. This meant that, far from taking cover, they had to climb on to the exposed stakes and even on to each others' shoulders. Charges had to be fixed to explode the German mines. In this they were greatly hampered by the choppy sea conditions.

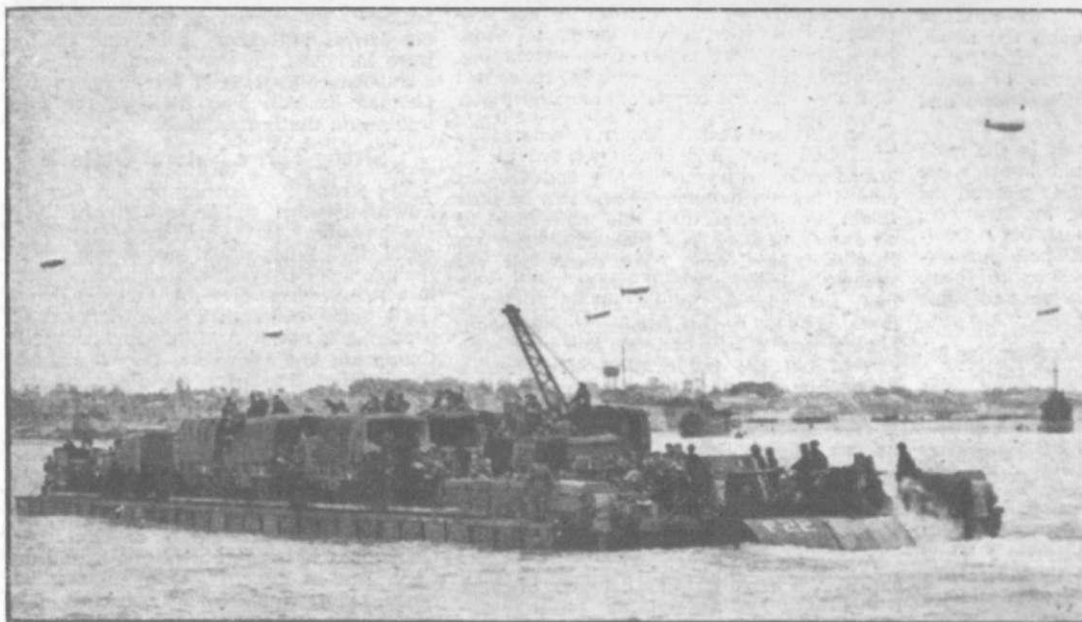
There were many brilliant novelties in the great build-up which went on throughout D-Day and the anxious days that followed. Among these were the rhino ferries, which

proved invaluable. Huge, self-propelling landing stages, the rhinos carried stores or became landing jetties. They could be loaded with immense quantities, and it was quite common to see the "skipper" of one of these craft, perched high on a mass of cases, passing his instructions by hand signal to the two coxswains handling the outboard motors in the stern. (See illus. on left.)

Ducks (D.U.K.W.s) swarmed about the invasion fleet, often handed by American coloured troops. They provided an endless belt on which supplies flowed unfailingly from ship to shore. Loaded at the side of a ship perhaps a mile or more out, they made their way in under their own power, grounded and then dragged themselves up on to the metal webbing put down on the sands. Without stopping, they checked through a control point and trundled down the narrow French roads to ammunition and store dumps. Empty, they went back by another route to the sea, plunged into the water and headed out for another load. They were successful beyond all expectations, and the tonnages put ashore by them in the early stages were triumphantly chalked up on beach headquarters notice boards as a source of inspiration to any who might doubt our ability to sustain the thousands flocking ashore. (See illus. in page 301, Vol. 7.)

LATER, the Gooseberries were formed by sinking a number of old ships stem to stern close in-shore. Inside these artificial shelters many small craft assembled. There were converted barges with fully equipped workshop-lorries secured in their depths, water carriers, floating cookhouses (L.C.K.s) and vessels that answered other problems of the great invasion. To move among them was to be in a busy, floating township; and it was almost impossible to believe that, not so many hours before, the Germans had looked out over its site on to a deserted seascape.

The Mulberries (see pages 430-434, Vol. 8), were built up even later, and although one of these amazing pre-fabricated ports was not destined to survive the unexpected frenzy of the storm that descended on the anchorage a fortnight later, they remained, perhaps, the most remarkable monument to the ingenuity of men who were determined to land armies from the sea in a way never known before.



GOING ASHORE ON THE NORMANDY BEACH-HEAD, after the Allied landings on June 6, 1944, is a self-propelled, heavily laden Rhino Ferry, specially designed for "Operation Overlord." These craft were adapted as pontoons between landing ships and beach, or as wharf or dry dock, or (as above) for conveying trucks and ambulances. See also illus. in page 102, Vol. 8. Photo, British Newspaper Pool

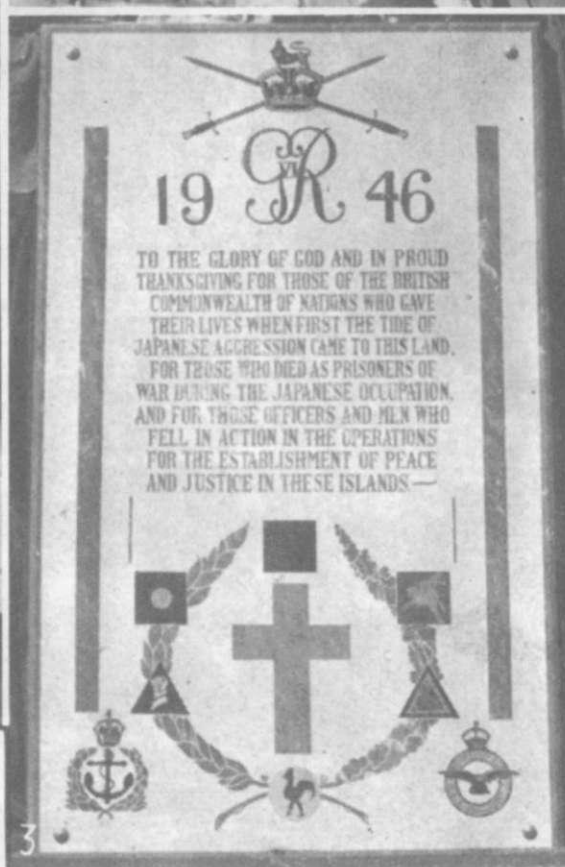
Before the invasion armada sailed, it was recognized that the congestion of vessels in the assault area would be very great. One secret weapon which had been tested and found successful was ruled out because of this. It was known as the L.C.G.(T), and was a heavily armoured gun-tower mounted on twin pontoons driven by Diesel power. The L.C.G.(T)s were to head the invasion and carry out a close-up bombardment with howitzers. When they were a thousand yards or less from the shore these bombardment towers were to "scuttle" themselves. Sitting firmly on the sea bottom with only the armoured casements showing above water, it was intended that they should keep up a constant fire on the enemy during the assault. When they had fulfilled their function, powerful compressors were to blow the water out of the pontoons in preparation for the return trip to England.

ANOTHER secret weapon that was used—the "D.D."—had the advantage of mobility over the L.C.G.(T). It was a floating tank which the War Office gave Mr. Nicholas Straussler encouragement to experiment on as early as 1941. A collapsible screen was fitted to the hull of the tank, and this, when erected, enabled the tank to float. Power came from propellers at the rear operated by the main driving shaft. Within a few seconds of getting ashore the D.D.s could shake off their canvas "skirts" and fight as land craft.

"swimming" tanks used by the Allies on D-Day only one was sunk, it has since been stated. (See illus. in pages 400-401, Vol. 9.)

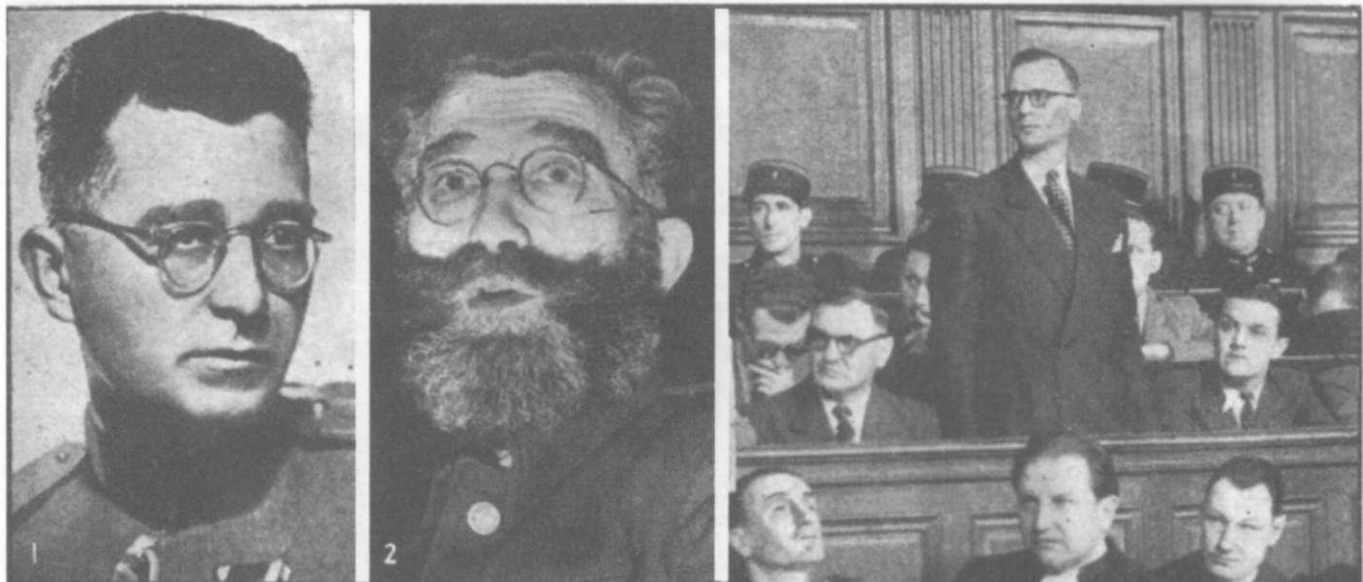
Both tank bridges and ramp tanks were used successfully by the Royal Armoured Corps and the Royal Engineers on the Normandy beaches and farther inland. Sea-front walls and specially built anti-tank walls were mounted by these vehicles which were designed to overcome deep ditches and cratered roads. Developed by a team of Army officers, civilian scientists and technical experts, they included a scissors type bridge carried folded on top of a Valentine tank which was automatically unfolded by a mechanism operated from inside the tank; a Churchill bridge-layer, which consisted of a 30-foot span steel trackway mounted on top of the tank hull which was raised by a pivot arm and carried forward and lowered across the gap; two trackways made up of hornbeam sections of the small box-girder bridge, fixed together to form a bridge which was projected in front of the tank and a Churchill tank with the turret removed and track-ways on the top. In the last type, additional track-ways projected in front and behind the tank. The tank was driven directly into the gap and the ramps lowered to enable vehicles to pass right over it. (See illus. in page 237, Vol. 9.) In the assault, many of the tanks became amphibious in another sense. Their guns provided concentrated

Batavia Memorial to British Commonwealth Dead



IN THE ENGLISH CHURCH AT BATAVIA, Netherlands East Indies, a memorial to British Commonwealth men and women killed in Java during 1942-1946 was unveiled (2) by Lieut.-Gen. Sir Montagu Stopford, G.O.C. Allied Land Forces South-East Asia, in July 1946. Attending the ceremony (1) were Dr. Van Mook, Governor-General, and British and Dutch servicemen. Bearing the insignia of the XVth Indian Corps, 5th, 23rd, 26th Indian Divisions, 15th Indian Task Brigade and the 5th Paratroop Brigade, the plaque (3) was designed by Corporal R. Roberts, R.A.S.C., and subscribed for by Service personnel.

More War Crimes Trials Run Their Tragic Course



GENERAL MIHAILOVICH, YUGOSLAV GUERRILLA LEADER and former War Minister (1) as he was in 1941, and how he appeared in June 1946 (2) when, arraigned for war crimes, he faced the Yugoslav Military Tribunal at Belgrade. Purporting to have led the Chetniks, Yugoslavia Army of the Homeland, in the interests of his country and of the Allies, it was alleged at the trial that Gen. Mihailovich had, instead, collaborated with the enemy and co-operated with the quisling government of Serbia. Representations by the Allies on his behalf for clemency were rejected; he was sentenced to death on July 15, 1946, and shot two days later. Thirty-one members of the French Gestapo, which operated against partisans during the German Occupation of France, were brought to trial at Paris, on June 19, 1946; chief of the Organization, Charles Detmar, stands in the dock (3) among the accused. In Tokyo on June 4, 1946, the trial of the former Japanese premier Tojo and other Ministers opened. Ex-Premier Tojo, sixth from left in front row of dock (4), listens while Major Blaking, U.S. Army (standing in front, left), asks the court for adjournment to enable counsel for the accused to prepare their cases. Former Foreign Minister Matsuoka, also charged, was absent from the court, through illness, and died in hospital on June 27, 1946.

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Photos, G.P.U., Associated Press, Keystone



Demonstrators Demand Trieste for Yugoslavia



DISSENTIENT YUGOSLAVS IN TRIESTE crowded the streets of the city (above) in one of the many demonstrations whose purpose was to demand the cession of the town and port to Yugoslavia. Mass protests proved in vain, however, the future of this Adriatic trouble-spot being decided upon by the Big Four Foreign Ministers at their Paris Conference on July 3, 1946. All territory east of the demarcation line suggested by France (see map) is to be ceded by Italy to Yugoslavia; a zone, including Trieste, within this area is to be "Free Territory," its integrity and independence to be assured by the Security Council of the United Nations; and recommendations for a provisional government for this territory and the formation of a permanent statute are to be made to the 21-nation Peace Conference convened at Paris for July 29, 1946.

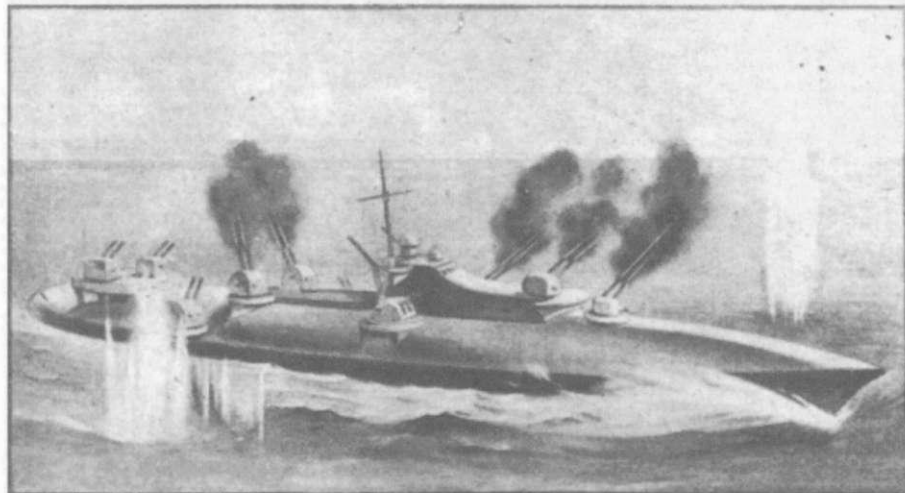
Photo, Kevstone. Map by courtesy of The Daily Telegraph



Bikini Atom Bomb and the Future

ON July 1, 1946 (Pacific time), an atom bomb was exploded in the air immediately above a collection of battleships, aircraft carriers, cruisers, destroyers, submarines and auxiliary warships in the lagoon of Bikini atoll. Publication of the news was the cue for a certain type of enthusiast, found in every country, to interpret the event in whatever fashion best agreed with his particular theory of the future trend of warfare. Some were eager to suggest that it foreshadowed the end of navies as we now know them. Others argued that so few ships had been sunk that the power of the atom bomb was obviously exaggerated.

Both, of course, are extreme views, which the known facts fail to support. Actually, far too few details have been released to enable a reasoned verdict to be given on such definite lines. Probably Admiral Sir John Cunningham, First Sea Lord of the Admiralty, was voicing the consensus of naval opinion in his advice to newspaper editors on July 2:



TO MEET THE THREAT OF ATOMIC WARFARE, this hypothetical anti-aircraft cruiser of French design is driven by denaturized uranium engines. Her watertight superstructure, modelled like a whale, is designed to withstand tidal and radio-active waves. Powerful radar-directed A.A. guns would be capable of destroying aerial weapons whether radio-controlled or rocket-propelled.

"I would sound a note of caution against drawing too hasty conclusions from the results of the Bikini experiments, which we hope will soon be published, before they have been confirmed and tested. Because an atom bomb—or if an atom bomb—has had great success against battleships anchored in a tropical lagoon for three or four months, and pinpointed to an exactitude of a few inches for the attacking bomber, do not let us think that it has solved the problem. If we were to try out a new rifle on an old cow tethered in the middle of a field, it does not necessarily follow that it was the right kind of bullet to use against a wounded tiger in a thick jungle. I should be frightfully averse to stalking a West African buffalo with only a humane killer, although that is an excellent thing for a tethered cow.

"I think the effect of which we are most conscious is that the advent of the atom bomb increases the necessity for the dispersion of bases and repair facilities and all supplies. That is the first lesson of Hiroshima. As regards its effect on ships, we have a considerable experience from anti-submarine work of how close to a ship you have to put a large explosion, when in deep water, in order to achieve the desired result. Atomic explosions are greater than anything before, but it may be—I do not say it will be—that the safest place in the next war will be on board a ship.

"You must remember that the atom bomb as we know it at present has still got to be carried to its target and dropped by an aircraft; and in the problems of interception and attack of aircraft all three Services have attained a considerable degree of proficiency. I do not think that proficiency is likely to decrease—rather the reverse."

Outside a very limited circle, no one has a precise idea of the weight or explosive force of the atom bomb, though it has been stated officially that it bears a closer relationship to

By
FRANCIS McMURTRIE

NAVAL experts of all countries are paying close attention to the effects of atomic bombs as demonstrated by the American experiments at Bikini (see facing page.) Already suggestions are being put forward for modifications in warship design necessitated by this new weapon, of which the reactions are not yet fully known.

the bomb dropped on Nagasaki than to its predecessor that descended on Hiroshima. Some time ago President Truman compared its power to that of 20,000 tons of T.N.T., while the U.S. Army Air Force admits that no aircraft smaller than a B-29 Super-Fortress was capable of carrying the load. From this it has been deduced that its weight may be in the region of four tons, though this is admittedly guesswork. Certainly its size and shape must be unusual. According to the Japanese, previous atom bombs were dropped

refit in a Navy dockyard, others rather less; indeed, the damage to the old battleship Pennsylvania was within the scope of the floating repair 'ships' facilities.

It was emphasized that the first bomb was intended mainly as a test against superstructure and deck equipment.

Plans have been made for a second atom bomb to be dropped so as to explode below the surface of the sea at a limited depth, variously reported as from 18 to 50 feet. The maximum depth of the Bikini lagoon is 180 feet. Date of this test will depend upon the weather, as a day suitable for photography must be chosen. The target ships will be arranged as in the first test, except that the submarines will be submerged instead of remaining on the surface. A third test, in which a bomb will be set to explode in very deep water, is to be made by the American naval authorities in the spring of 1947.

Admiral Pierre Barjot, of the French Navy, has some interesting observations to make on the second Bikini experiment in an article appearing in France Illustration. He regards the underwater explosion as much the more important test, since the pressure exerted against the underwater sections of the ships' hulls will be beyond anything hitherto recorded. He envisages an enormous column of water being thrown into the air, and speculates concerning the distance at which the effect of the submarine explosion may be felt.

Revolution in Ship Construction

In the case of the submarine earthquake in the Aleutian Islands on April 1, a tidal wave was thrown up with an estimated velocity of over 200 miles per hour. A secondary wave, starting at the rate of 90 miles an hour, reached as far as the coast of Chile, at the other end of the Pacific. Such convulsions of nature make the efforts of the man-made atom bomb appear a comparatively trivial affair.

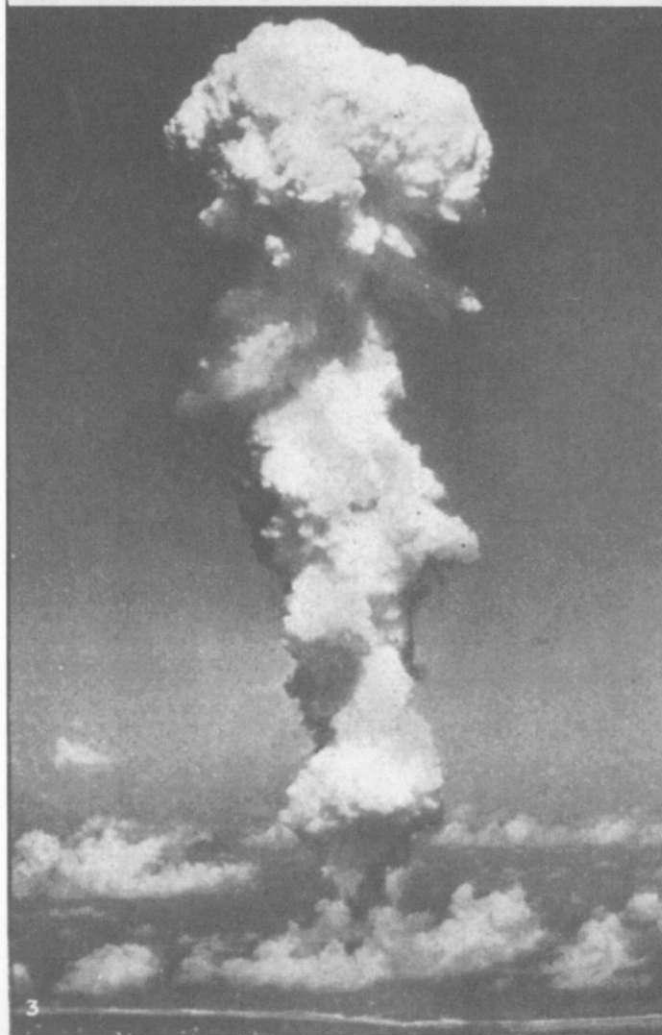
It may be assumed that more ships will be sunk by the underwater explosion than the four or five which succumbed to the overhead one. Subsequently they will no doubt be refloated, and the damage studied in order that its effect on different parts of the structure may be fully appreciated. On the report of the experts who undertake this examination the system of construction of future warships will doubtless depend (see illustration). Final conclusions will necessarily be withheld until the issue of the deep-water explosion next year can be taken into consideration.

ADMIRAL BARJOT suggests that it may be found necessary to increase the thickness of the horizontal armour of large warships, with superstructure reduced to a minimum, as in a submarine. A streamlined conning tower or bridge structure protected by thick armour will be essential. Aircraft carriers may assume the profile of a tortoise, with hangars insulated against fire. Battleships and cruisers will need more than ever to augment their anti-aircraft armaments, for in the destruction of the attacking bomber lies the best form of defence against the atom bomb.

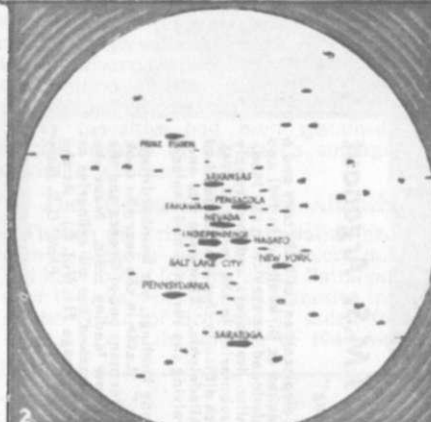
Whether or not the submarine will prove the type of warship best able to resist this form of attack must depend on the results of the further tests. It will almost certainly be necessary to add greatly to her hull strength.

That other war uses will in due course be found for the atom explosion can hardly be doubted. Atom shells and torpedoes may be dreams of the future, but already, in spite of the difficulties hinted at in the Press by Sir James Chadwick, experiments are being planned for atom-carrying rockets.

The First Post-War Atom Bomb Explodes



AGAINST WARSHIPS moored in the Bikini atoll lagoon, in the Pacific, an experimental atom bomb was dropped on July 1, 1946. To test the effects against naval craft a fleet of captured Japanese and German and a number of redundant United States warships (1), "manned" by animals treated with anti radioactive ointments was disposed as shown in the official plan (2). The smoke from the explosion rose to some 35,000 feet (3). Many of the animals survived, including the tethered goat (4), which appeared to be quite unaffected by the ordeal. Drawing by courtesy of *The Illustrated London News*



HIS MAJESTY'S SHIPS

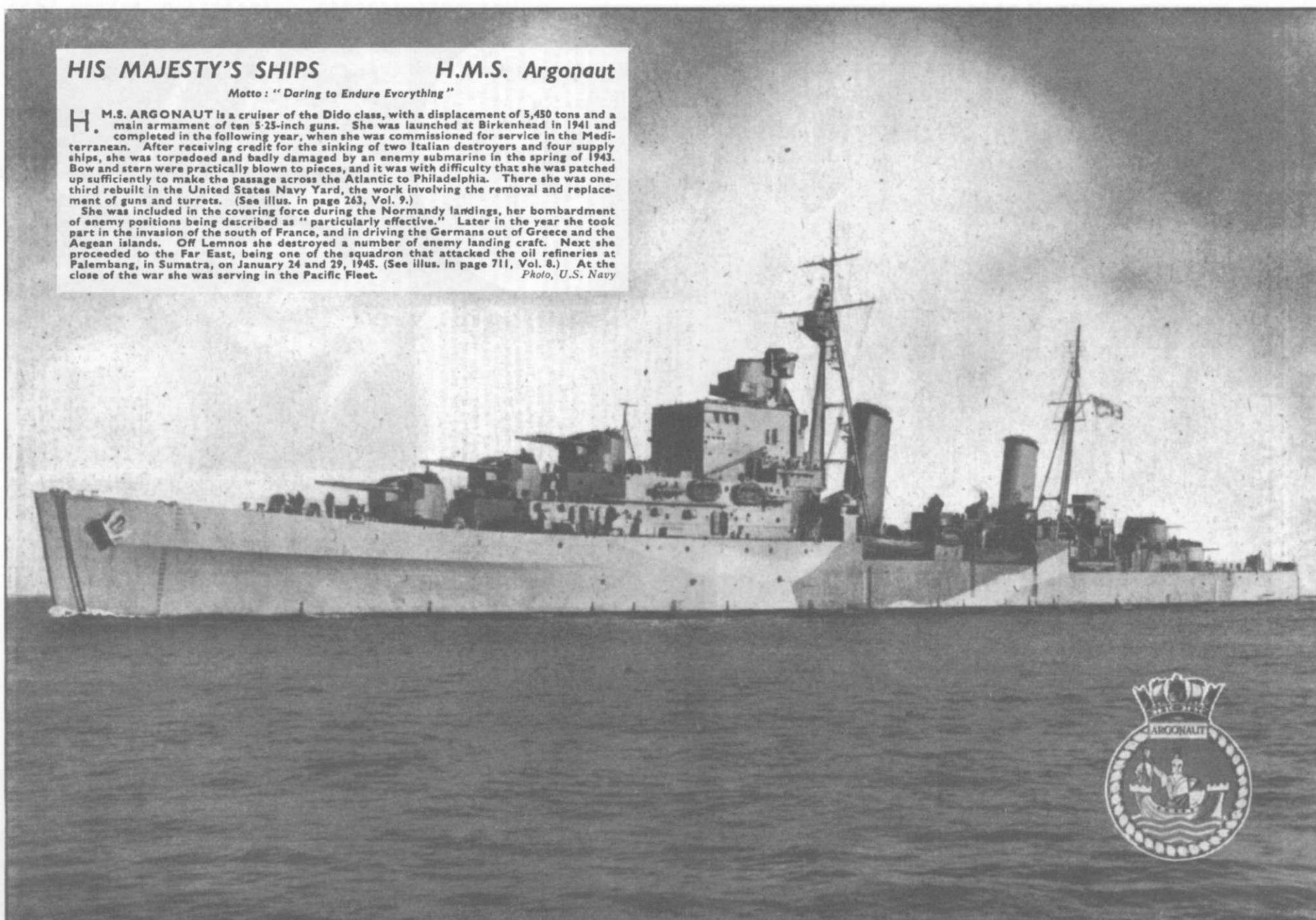
H.M.S. Argonaut

Motto: "Daring to Endure Everything"

H. M.S. ARGONAUT is a cruiser of the Dido class, with a displacement of 5,450 tons and a main armament of ten 5.25-inch guns. She was launched at Birkenhead in 1941 and completed in the following year, when she was commissioned for service in the Mediterranean. After receiving credit for the sinking of two Italian destroyers and four supply ships, she was torpedoed and badly damaged by an enemy submarine in the spring of 1943. Bow and stern were practically blown to pieces, and it was with difficulty that she was patched up sufficiently to make the passage across the Atlantic to Philadelphia. There she was one-third rebuilt in the United States Navy Yard, the work involving the removal and replacement of guns and turrets. (See illus. in page 263, Vol. 9.)

She was included in the covering force during the Normandy landings, her bombardment of enemy positions being described as "particularly effective." Later in the year she took part in the invasion of the south of France, and in driving the Germans out of Greece and the Aegean islands. Off Lemnos she destroyed a number of enemy landing craft. Next she proceeded to the Far East, being one of the squadron that attacked the oil refineries at Palembang, in Sumatra, on January 24 and 29, 1945. (See illus. in page 711, Vol. 8.) At the close of the war she was serving in the Pacific Fleet.

Photo, U.S. Navy



Records of the Regiments: 1939-1945

ON the outbreak of war the Regiment consisted of six Battalions—two Regular (1st and 2nd) and four Territorial, to which was shortly added the 1st Battalion The Tyneside Scottish at Newcastle, formerly a duplicate battalion of the Durham Light Infantry. The 1st Battalion was stationed at Dover, the 2nd in Palestine, while the others were located within the Regimental recruiting area of Perthshire, Fife and Angus. After being inspected by H.M. The Queen, Colonel-in-Chief of the Regiment, the 1st Battalion embarked for France on October 5, 1939, with the 4th Division. Active operations were experienced during the period December 15-31, in the "ligne de contact" on the Saar front, when the unit was never in reserve and experienced extremely severe weather conditions.

A spell on the Belgian frontier then followed, until March 1940, when the Battalion joined the 51st (Highland) Division and in April was again on the British Brigade sector of the Saar: shortly afterwards the whole Division took up positions in that area, where much night fighting and skirmishes with advanced German units were encountered.

With the break-through of the Germans into the Low Countries, the Division was rushed across France to relieve the French on a long front opposing the enemy, who had already established two bridge-heads over the Somme, at St. Valery-sur-Somme and opposite Abbeville. By June 11 it had been necessary to retire to St. Valery-en-Caux,

The Black Watch

By Lieut.-Colonel

A. V. HOLT, D.S.O., O.B.E.

THE record of the Black Watch began at Fontenoy in 1745. The Highlanders were to the fore in Egypt in 1800-1, and at Corunna, served through the Peninsular War, and were at Quatre Bras and Waterloo. They were in the Highland Brigade in the Crimea, and fought hard during the Indian Mutiny; later they served at Ashanti, and stormed the entrenchments at Tel-el-Kebir. During the First Great War many Battalions of the Regiment served, in addition to the two Regular Battalions.



When the position of the remaining Brigades became known, this Battalion was evacuated from Le Havre. The 6th Battalion had arrived in France with the same Division in January, but was transferred two months later to the 4th Division in place of the 1st Battalion. It distinguished itself in severe fighting in Belgium against much superior forces, particularly on the Gommes Canal, and was eventually embarked at Dunkirk.

On May 20, the 1st Battalion The Tyneside Scottish was the

first British unit to take the shock of the German advance through the Ardennes—meeting, unsupported by any other arm, the attack of an armoured and a motorized division. This sacrifice (which, after five hours' fighting, resulted in twenty per cent of those engaged giving up their lives and the remainder spending

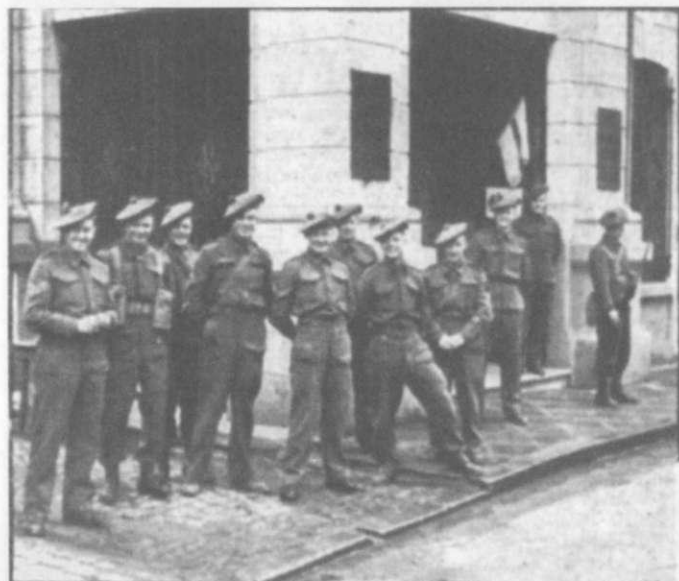
five years in captivity) had its unseen reward in appreciably delaying the enemy advance on Calais and beyond. From the collapse of the armies in the West, the Regiment was called upon to endure many severe tests in Africa and the Mediterranean: Italy had declared war on June 10, 1940, and the 2nd Battalion The Black Watch was detailed to provide a fighting rearguard in the evacuation of British Somaliland. In this action one Company especially distinguished itself by holding up the advance on Berbera against overwhelming odds. In 1941 the Battalion moved to Crete, and on May 21 faced the onslaught of hordes of fanatical parachutists dropped on the airfield at Heraklion by an enemy who had complete mastery of the air. Despite the enormous odds the Battalion held fast until May 28, when orders were received for a general withdrawal to the south coast, where the troops, after an arduous night's march, were taken off by the Royal Navy. During that time not one German had succeeded in landing within the airfield perimeter, and certainly hundreds had been killed in their attempts to do so.

After several weeks in Egypt the Battalion took part in the occupation of Syria and in October 1941 sailed for the beleaguered port of Tobruk. After a month spent in raids and patrols to obtain information about the enemy strong-points, orders were given on November 20 to break out at dawn the next morning in an attempt to join up with the

8th Army. With pipes playing, the advance was made through withering machine-gun fire and the objectives captured. Then for three weeks the position on the "Corridor" was held until the main forces fought their way through. Heavy casualties had been sustained and special mention of the men's courage and discipline was made.

The Highlanders at El Alamein

Though the original 1st Battalion had met such a grievous fate at St. Valery no time had been lost in forming a new Battalion, and after two years of the most intensive training in the North of Scotland it sailed for the Middle East in the summer of 1942 with the



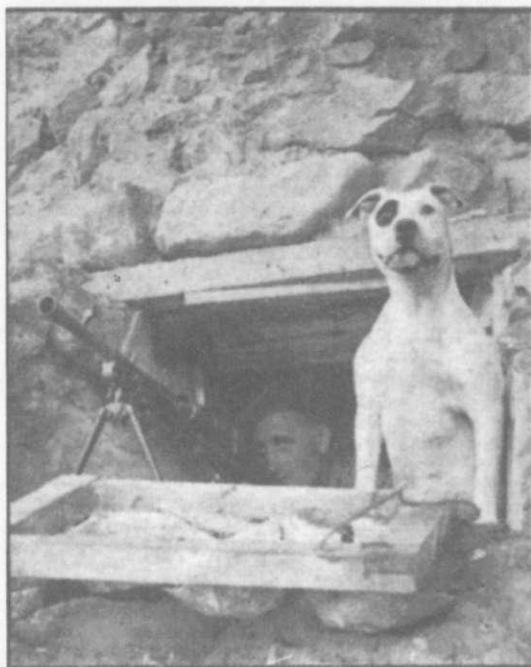
where the main part of the Division, including the entire 1st Battalion The Black Watch, with no ammunition or food and no prospect of evacuation, was obliged to lay down its arms the following day.

Thus a large proportion of the Regiment's Regular officers and other ranks went into eclipse . . . true to Highland tradition they and their comrades in the Division remained to the last with the remnants of our French Allies, although it would have been possible to have withdrawn earlier and embark at Le Havre. That this immense sacrifice had not been in vain may be judged from the fact that it had drawn on to St. Valery the German IV Corps of four Divisions, a Panzer and a Motor Division, in all six Divisions, and thereby diverted this force from harassing the withdrawal of other British troops from Le Havre and Cherbourg.

Meanwhile, the 4th Battalion, also in the 51st (H) Division, had been detailed, on June 9, as part of "Ark Force," a Brigade force undertaking the defence of Le Havre.



MEN OF THE 1st BATTALION THE BLACK WATCH are seen, in these hitherto unpublished photographs, outside their H.Q. at Henin-Lietard (left) shortly after arriving in France in October 1939, and along the river Bresle (above) June 1940. After this action the Battalion was forced to surrender at St. Valery-en-Caux, June 12. See also illus. page 249. PAGE 235 Photos, British Official



BACK FROM DUNKIRK, men of the 6th Battalion training in the Isle of Wight, August 1940, were equipped with bicycles (as in above unpublished photograph) ready for quick dispatch to threatened areas had the German invasion materialized. "Grundy," bull-terrier mascot of the Regiment, in Gibraltar in November 1941, stands guard over a defence post in the Rock. (left).
Photo, British Official

reconstituted 51st Division, which also included two other Black Watch Battalions, the 5th and 7th. Few of the men had been in action, but all were imbued both from the regimental and divisional point of view with a strong sense of duty to avenge their comrades in the Stalags of Germany and Poland.

Their opportunity came on the night of October 23, when under bright moonlight and supported by an unprecedented artillery barrage the Battalions went into action at El Alamein, their pipers proudly leading the advance. The epic success of this battle was but the prelude to the series of victories by which the 8th Army swept across North Africa to Tunisia, where the surrender of all Axis forces in Africa took place the following May: such battles are household words in this country and in each one the Black Watch troops displayed those qualities of discipline, fighting efficiency and sacrifice for which

this Regiment has been celebrated during the last two centuries.

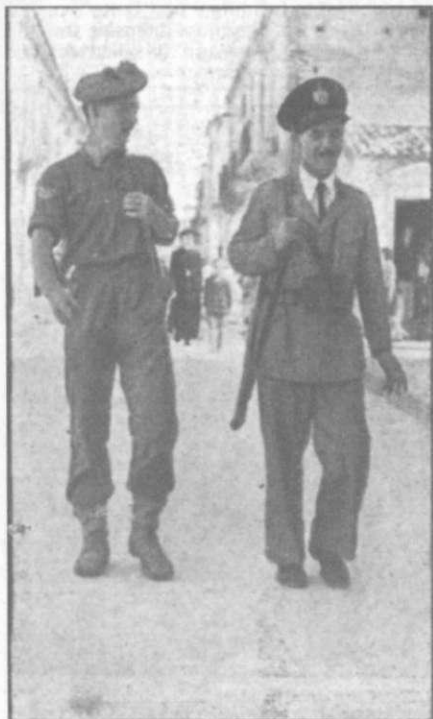
The principal engagements were Mersa Brega, Wadi Zem-zem, Homs, Tripoli, Mareth Line, Gabès, Wadi Akarit and Enfidaville. The successful operations of the Regiment in this theatre of war ended with the invasion of Sicily, and towards the end of 1943 the Division returned to England.

In March 1943 the 6th Battalion landed in North Africa with the 4th Division to join Lt.-Gen. Anderson's 1st Army, and were soon engaged in a number of fierce mountain battles, culminating in the destruction of the main German armies at Mejez-el-Bab and the pursuit to Cape Bon. In April 1944 it took part in the battle for Cassino, and then commenced the protracted task of pushing the enemy right out of Italy. As the Battalion moved northwards, heavy rearguard opposition was encountered in many parts and, as the country was becoming more mountainous, the problems of supply and evacuation of casualties were extremely difficult ones. After the Germans had been pushed back beyond Florence, the Battalion was pulled out for a rest. At about this time it provided a guard of honour for H.M. The King.

With Wingate's Chindits in Burma

While the victors of the North African campaign were sailing home hoping to spend Christmas with their families, the 2nd Battalion, by this time in India, was undergoing a five-months' period of jungle training as part of the late Major-General Wingate's Chindits. Much of the training was entirely new—for example, making the men animal-conscious (it being necessary to take a large number of mules), teaching the men to locate targets in jungle growth, and so on. In March 1944 the Battalion moved to an assembly area in Assam and were then flown in Dakotas hundreds of miles behind the Japanese lines.

Here for the next twenty weeks the troops experienced the most severe conditions of fighting, climate, and terrain: much of the country was so hilly and so thickly covered in jungle that an advance of two miles in eight hours was often considered good progress. Two major engagements were fought and many profitable ambushes carried out, but fortunately casualties were comparatively light. At the end of this part of the campaign, the Battalion was flown out to a rest camp in India.



SHARING POLICE DUTIES in Sicily was one of the tasks of the Black Watch. This corporal accompanied a civilian policeman in Noto.

No fewer than four Black Watch Battalions embarked for Normandy with 21st Army Group—the 1st, 5th and 7th, still with 51st (H) Division, and the 1st Battalion The Tyneside Scottish. The last-mentioned Battalion was soon engaged in the severest fighting, and on July 1 inflicted very heavy casualties on the enemy. Unfortunately it was found necessary several weeks later to split up this fine unit among other Scottish Battalions.

THE first task of the 51st Division was to hold the bridge-head immediately east of the Orne, in conjunction with the 6th Airborne Division. Soon after, when the Americans overran the Cherbourg peninsula, the whole Division moved to near Bourgebus, to come under the 1st Canadian Army for operations south of Caen, to link up with the Americans and the British 2nd Army.

Novel tactics were employed, involving the carrying of the infantry in dismantled Priests



MUSICAL PRELUDE to the invasion of Sicily: a Black Watch piper played while waiting to embark, in North Africa, in July 1943.

Pride of the Kilt in North African Deserts



AT ALGIERS, on the Maison Blanche airfield, members of the Black Watch, with the 51st Highland Division, were inspected by the King (1) on June 24, 1943, before His Majesty entered his aircraft at the conclusion of his tour of North Africa. In the heat of the desert and between battles the Balmoral Concert Party brought to the men of the Regiment a memory of home in a performance in Tripolitania (2).
The pride of the Scotsmen in the kilt never died even under battle conditions, and it was donned on all official occasions by these intrepid fighters wherever the tide of war took them. To retain that barrack square smartness of the tartans was the task undertaken by the Black Watch Pipe Major (3), who is seen pressing a kilt with a flat-iron behind the fighting-line in Tunisia in 1943.

Photos, British Official



MOVING UP FOR THE BREAK-THROUGH south of Caen, August 7-8, 1944, troops of the 1st Battalion The Black Watch, with the 51st Division, are seen on the outskirts of Cormelles. Transported in specially adapted carriers, they debussed within a few yards of the enemy's forward positions to play a major part in the Battle of France. Photo, British Official



ABOUT TO ENJOY A RESPITE FROM THE LINE, men of the 7th Battalion in this hitherto unpublished photograph are entering billets at Hotton, Belgium, in January 1945. With the 51st Division, as the reserve of the American armies, the Battalion had recently joined up with the Americans across the enemy salient in the Ardennes. Photo, British Official



IN THE CEMETERY AT ST. VALERY-EN-CAUX, December 12, 1944, Lieut.-Col. Bradford, D.S.O., M.B.E., M.C., of the 5th Battalion (left), accompanied by the mayor, paid tribute to those of his Regiment and the 51st Division killed in the town in June 1940. St. Valery was liberated by the 51st Division in September 1944. See also page 248. PAGE 238 Photo, British Official

and white scout cars, and the attack commenced on the night of August 7-8. For the next fifteen days, in its advance from Tilly to Lisieux, the Division, fighting continuously in its most intensive period of operations up to that time, played a major part in the Battle of France. Over 1,600 prisoners of war were taken, and the troops were congratulated on their fine work by the Canadian Army Commander.

At the end of August the Division crossed the Seine at Rouen and was directed upon St. Valery. To all ranks, the entry into St. Valery was a source of deep pride, particularly to several senior officers who had been captured there in 1940 and had escaped while en route for Germany. The graves of many Black Watch men were found, and all had been well cared-for by the French; at the entrance to the cemetery at St. Pierre-le-Viger there was a notice, "Honour to The Black Watch who fought here with courage in 1940." To mark this proud day the massed pipes and drums—nearly 200 men—played "Retreat" on the site of the old Division's Headquarters in 1940 at Cailleville.

After the occupation of Le Havre which was taken with very light casualties, 154th Brigade, containing the 1st and 7th Battalions, was directed to Dunkirk to contain an enemy force estimated at about 10,000. During this investment one of the rare truces was arranged, for 36 hours, to permit the evacuation of 19,000 civilians. On October 8 this Brigade rejoined the Division in Holland; on the anniversary of Alamein a full-scale attack was launched to clear the Germans from Southern Holland northwards as far as the River Maas. So successful were the operations that by November 7 the Division, by its thrust from Schijndel to Gertrudenburg, had cleared some 300 square miles. Sincere congratulations on this achievement were received from the commander of the 2nd Army. By December the Division had reached a position north of Nijmegen.

They Led the Mass Rhine Crossing

With Rundstedt's Ardennes offensive, the Division became the reserve of the American Armies, and on January 8 took part in the drive across the enemy salient to link up with our Allies pushing north through Bastogne. In this operation the 1st Black Watch had the satisfaction of clearing the important road centre of Goch in appalling weather conditions. By February 8 the task of clearing the enemy between the Maas and the Rhine, south of Nijmegen and down to Wesel, had begun; and before these tasks had been completed nineteen days of the most strenuous fighting were experienced, both the 1st and 7th Battalions The Black Watch taking part in five major attacks, in addition to a number of minor clashes.

To the famous 51st Division was given the honour of being the first Division to make the assault crossing of the Rhine, and at 21.00 hours on March 23 the 5th and 7th Battalions led the attack, the main objectives being Rees and Esserden, which were captured the next day after grim and exhausting combat. The 1st Battalion also met stiff opposition in following through the initial attack. The crossing of this historic river, however, witnessed the death of the Divisional Commander, Maj-Gen. T. G. Rennie, C.B., D.S.O., a Black Watch officer who had served with great distinction and was extremely popular with all ranks.

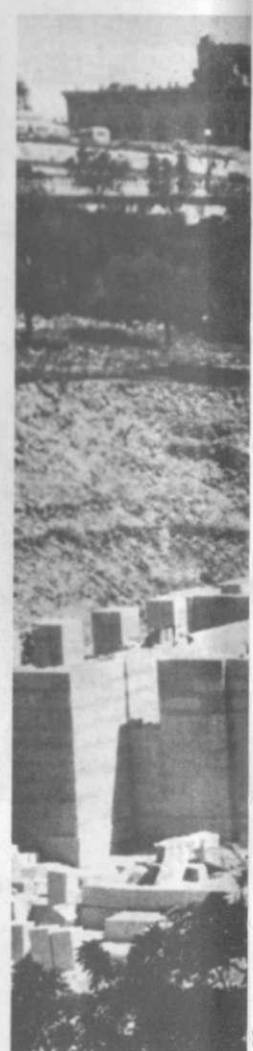
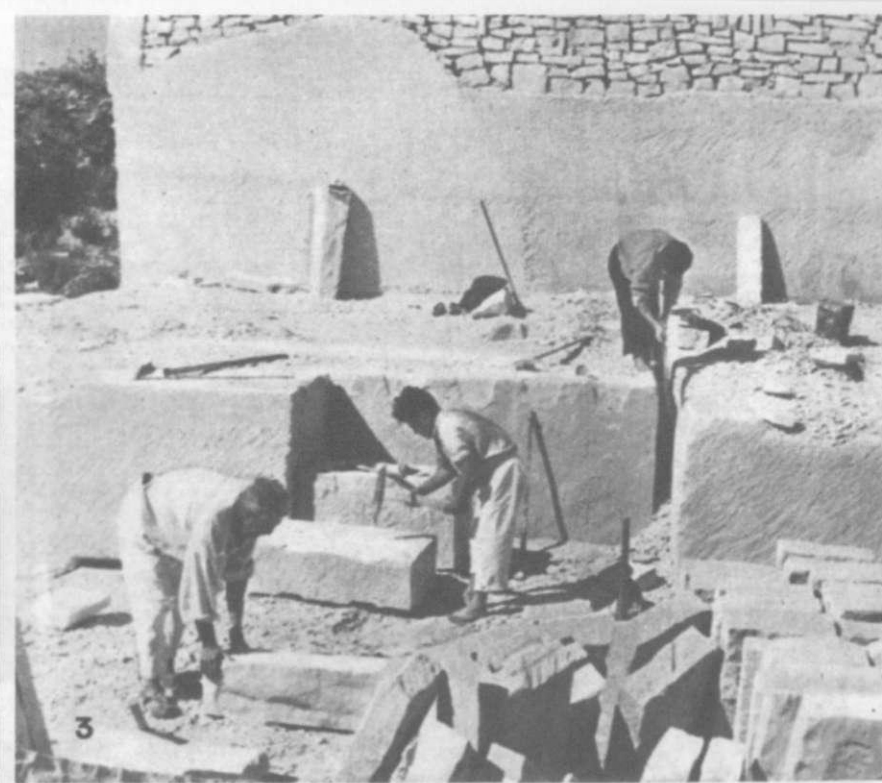
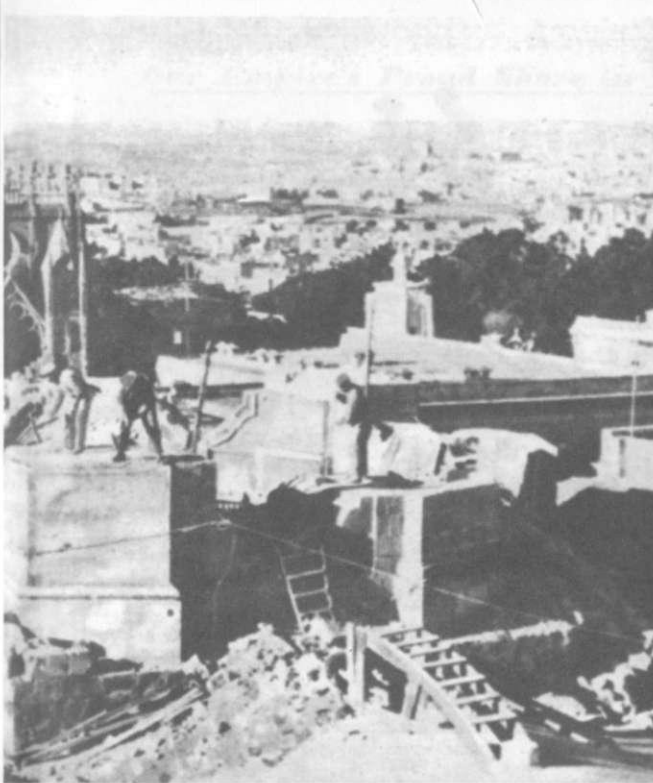
Active operations concluded on May 3 with the news of the German capitulation, and the occasion was marked by an impressive march past on May 12 before the Corps Commander, in which a composite guard of honour from the three Black Watch Battalions took part. Thus ended six historic years in which all Battalions added new lustre to the traditions of this Royal Highland Regiment.

Gallant Malta Rebuilds her Shattered Streets



Photo, Illustrated

With the same indomitable courage which they displayed throughout the siege of their island, from June 1940 to November 1942, Malta's erstwhile defenders are now facing the problem of repairing the ravages of war. The task of rebuilding the bomb-shattered towns, of which this corner in Valetta is but a small part, is already under way. Towards Malta's reconstruction the British Colonial Secretary on July 9, 1946, announced the allocation of a further grant of £30,000,000 from United Kingdom funds to supplement the free gift of £10,000,000 made in 1942.



Healing Malta's Architectural Wounds—

Huge blocks of stone from the island's quarries are hoisted by primitive means to the portico of the famous Cathedral of St. John of Jerusalem (1) at Valetta. In the suburbs of the capital work is in progress on the cupola of St. Publius' church (2), almost completely destroyed by a stick of bombs. The dome seen in this photograph is that of the Sarria, a church of the Maltese Order, built in 1678; immediately to its right is the Wesleyan Church.

Photos, Topical Press, Illustrated

—With Stone from Her Ancient Quarries

In a quarry at Luca (3), slabs of rock for reconstruction are hewn out of the solid mass by hand. But not all is newly hewn, much of the rubble from the ruins being planed down for re-use (4). The King George V Hospital at Valetta, destroyed in 1942, is being rebuilt (5) largely from funds subscribed by the Red Cross, especially the Scottish branch. The new building will incorporate a stone from London's bomb-damaged House of Commons.



R.A.S.C. Dumps Jap Ammunition in the Pacific

Photos, British Office

Destroying 40,000 tons of Japanese ammunition, found at Singapore, was a task recently allotted to 56 Water Transport Unit, R.A.S.C. Utilizing Japanese P.O.W. labour, the ammunition was loaded on DUKWs (1) by means of a gravity conveyor band. The dangerous cargo was then ferried (2) out to a L.C.T., into which it was stacked (3). Over deep waters of the Pacific the L.C.T. discharged the boxes of ammunition (4). Captain Richards, R.A.S.C. (5), directed operations.

FIRST BATTLES OF THE WEST AFRICANS

By HARLEY V. USILL

As a complete contrast to the Mediterranean, with its history of civilizations dating back to the pre-Christian era, we will return to West Africa (see pages 104 and 147). Before dealing with the military feats of its famous regiments, however, it may be helpful to background the environment from which they were recruited.

British West Africa is not one but four territories—the Gambia, Sierra Leone, the Gold Coast and Nigeria. From the Gambia to Nigeria is as far as from London to Gibraltar, and the four territories have a total area of 500,000 square miles. Nigeria, with the Mandated Cameroons, is the largest with 372,000 square miles; it is bigger than any European country except Russia, and nearly four times as big as the United Kingdom. Twenty-six million people live in the four territories, over 20 million of whom are in Nigeria. The great majority are Negroes and they speak about forty different principal languages. Of the 26 million, Christians number between one and two millions, and Moslems about eight millions. The rest are usually described as "pagans."

Nucleus of the Frontier Force

In British West Africa there is a bewildering complexity of race, tribe, tongue, religion, costume, custom, occupation and outlook. There is a highly sophisticated minority of intellectuals, many of whom have received the best education which Great Britain or America can give. There is the vast majority whose emergence from the days when each tribe lived for itself alone, and warred spasmodically with its neighbours, and when slave-raiding was the favourite commercial occupation and human sacrifice a common religious practice, is still in the process of achievement under our colonial administration.

As early as 400 years B.C. Hanno, the Carthaginian navigator, sailed along the coast of West Africa, but it was not until the Portuguese followed suit some 500 years ago that Europe began to receive accounts of some of the mysteries of the then unknown continent. The opening up of the New World led to an insatiable demand for cheap labour to work on the plantations, and the big profits in the handling of "black ivory" attracted competitors to the Portuguese, including merchant adventurers of England and Denmark. This slave trade prospered for 150 years, until, in fact, the humanitarian movement in Britain became strong enough to demand its abolition. At the Berlin Conference of 1884 the general basis of what came to be known as the "Partition of Africa" was laid down, the result of which was the acknowledgement of the claims of Britain to the four territories of British West Africa. By 1900 the frontiers had become stabilized, and the British have had only a matter of about fifty years in which to gain the loyalty and co-operation of these 26 million people.

The real nucleus of the force named the West African Frontier Force came into existence in Nigeria, where Lord Lugard was sent in 1897 to raise a local military force. Its function was to maintain internal security among the then warring tribes, and to defend the frontiers of British West African dependencies. With these ends in view, trained men and arms were sent from Nigeria to the Gold Coast and became the beginnings of the Gold Coast Regiment. Later a battalion was assembled for similar purposes in Sierra Leone and, later again, a company was formed in the Gambia. No one then thought that these small forces would develop into great fighting machines and that these fighting machines would play a vital part

in the war for survival in the next century. In 1901 the name West African Frontier Force came into being, the "Royal" being bestowed in 1928. By furthering the establishment of law and order, this force has greatly assisted the progress of civilization.



11th AFRICAN DIV.

12th AFRICAN DIV.

In view of the uncertainty regarding the attitude of Italy prior to the Second Great War it was appreciated that East Africa might become the object of enemy attack. Therefore, in 1937 and 1938 the African Colonial Forces were reorganized to provide the greatest measure of defence for the African Dependencies in general, and in particular to permit as large a force as practicable being instantly available for the defence of East Africa, for which latter purpose a proportion of the West African troops would be transferred. In the event, however, it was not until May 1940 that six West African battalions, three from Nigeria and three from the Gold Coast, amounting to over 10,000 troops, left for East Africa.

In a description of the Nigeria Regiment, which is typical of the rest, the recruits are portrayed as follows: "... they came from the forests and swamps of the Delta and the South; artisans from the Yorubas; pioneers from the Ibos; transport drivers from everywhere: they came from the wide plains of Hausaland, from the granite hills of the Plateau, from the mountains of the Cameroons, from the blistered deserts of Bornu and Chad. Educated and illiterate, they came freely of their own wills to ensure that freedom shall not die from the world."

West Africans in East Africa

The spectacular events in the later stages of the War have largely erased from our minds those stirring events of 1940 and 1941, when the rolling-up of Mussolini's *ersatz* empire was laying the foundation for final victory. By the time that the 1st West African Brigade from Nigeria and the 2nd West African Brigade from the Gold Coast had arrived in East Africa, the Italians had invaded British Somaliland, and the British had been compelled to withdraw. Plans for the Abyssinian campaign then took shape, and consisted of a gigantic pincer movement; the northern arm based on the Sudan under General Sir William Platt, the southern arm based on Kenya under General Sir Alan Cunningham. Simultaneously with the closing of the pincer, Emperor Haile Selassie was to enter Abyssinia across the Sudan frontier.

The Italians had reached the border of Kenya, and the first stage of the counter-offensive began when on December 16, 1940, Gold Coast troops with the South Africans made a most successful raid on the frontier post of El Wak, near the Kenya-Italian Somaliland border. By now the strength of the East and West Africans had been brought up to two divisions—the 11th and

12th African Divisions, and these were concerned solely with the southern operations.

General Cunningham arrived in Kenya on November 1, 1940, and on April 5, 1941, Addis Ababa was entered. The story of that 2,000 miles advance is the story of the southern of the two attacks. The drive began with an advance by both African Divisions to the Juba, which they reached in the middle of February 1941. After the Juba had been forced, the African troops split, the 12th Division advancing up the Juba and into the southern part of Abyssinia, while the 11th Division, consisting now of one East African, one West African and one South African Brigade, advanced along the coast to Mogadishu, which was reached on February 25. They then turned north, and at an astonishing pace reached Jijjiga on March 17, when they were 744 miles from the starting point. Three weeks later the Brigade was in Addis Ababa itself.

The Nigerian troops led the great advance of over 1,000 miles in thirty days, from the Juba River to Harar, capturing the city of Mogadishu on the way. Supported by South African gunners they fought the decisive battle of the Marda Pass. Later the Brigade distinguished itself in the battles of the Rivers Omo and Didessa. General Cunningham paid this tribute to their work:

"... The final 65 miles into Harar entailed an advance through the most difficult country in face of opposition from three strong positions, yet the distance was covered in three and a half days. The Nigerian soldier, unaccustomed to cold and damp, fought his way from the hot and dusty bush to the wet and cold highlands of Abyssinia, where he maintained his cheerfulness and courage in spite of strange conditions and the strenuous operations made necessary by the terrain."

The Gold Coast Brigade had an equally impressive record. In addition to its brilliant raid at El Wak, it was among the first of the troops to enter Italian Somaliland. Against heavy odds it fought a series of successful engagements on the Juba River, thus paving the way for the Nigerian Brigade's spectacular advance. Later, by their persistent assaults on the Italians at Wadara, they gained a victory that had a decisive effect on the campaign in southern Abyssinia. Their commander, Major-General Godwin Austen, paid this magnificent tribute to the men of the Gold Coast: "In every situation they have distinguished themselves. Their spirit, their efficiency, their burning patriotism, and their high courage are admired and envied by all." Great praise must also be given to the British officers and senior N.C.O.s whose courage and leadership inspired all the troops under their command.

Work of African Pioneer Corps

So ended General Cunningham's campaign in which over 30 Italian generals and an army of 170,000 men had been put out of action by a force not one-third as numerous. The task in East Africa having been completed, and Vichy France having become a potential menace to the security of West Africa, the West African troops returned home. They did not know then that they would be called upon to wage another campaign in more distant lands, but this will form the subject of another story.

Mention must be made of the work of the West African Pioneers in the Middle East who, by May 1945, had reached a figure of over 16,000. The first West African companies arrived in April 1943, and they helped with the construction of base installations and aerodromes. As a reward for their extremely valuable work the original title of African Auxiliary Pioneer Corps was changed to African Pioneer Corps.

Why Bread Rationing Came to Our Country



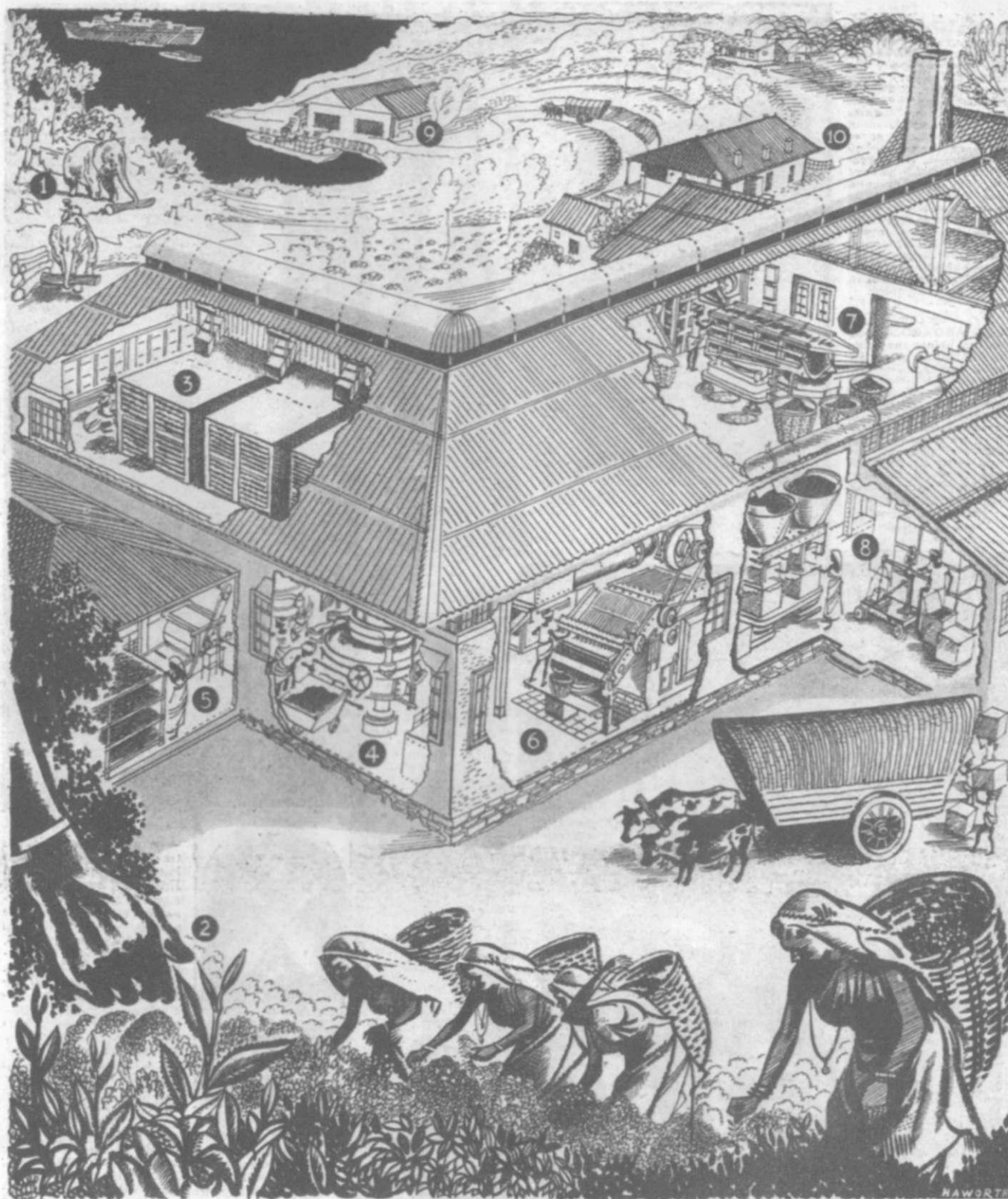
DETERIORATION IN THE WORLD FOOD SITUATION, and need to control the distribution of many foods with a view to preventing widespread suffering and starvation, led the Food and Agricultural Organization of the United Nations to convene a special meeting in Washington on May 20, 1946. Delegates of 17 governments and five international organizations attended, and recommendations regarding the formation of an International Emergency Food Council (to replace the Combined Food Board) were submitted to the governments concerned. On June 20, representatives of 19 countries approved the establishment of this Council, which held its inaugural session in Washington the same day, as seen above. A central committee of nine was elected, consisting of the three Combined Food Board countries (Britain, U.S.A. and Canada) and Australia, India, China, Argentina, France and Denmark. Attending the meeting were (l. to r. at right) Mr. Clinton P. Anderson (U.S. Secretary of Agriculture), Sir John Boyd Orr, M.P. (for U.N. Food and Agriculture Organization), and Mr. John Strachey, M.P. (British Minister of Food).

[illegible]

BEGINNING ON JULY 21, 1946, rationing of bread, flour, and flour confectionery in Britain was announced by the Minister of Food in the House of Commons on June 27. Mr. Stracher stated that the Government had reached this decision because they were convinced that to fail to ration bread and flour would be to take an unjustifiable risk with the basic foodstuff of the British people. In the subsequent Parliamentary debates, Mr. Strachey disclosed that there was no great reserve store of wheat lying idle in the country; there was only the stock going through the "pipe-line" from ships to shops. It was estimated that at the end of August there would be some eight weeks' supply of bread and flour in hand—sufficient to satisfy with certainty the bread supply of the country if a system of rationing were introduced, but not without it. Rationing enabled the authorities to work with a considerably smaller amount in the pipe-line. The basic adult ration is 9 oz. a day, with graduated amounts for children and extra allowances for manual workers; the special bread card for the latter is shown (left). The bread unit coupons are interchangeable with ordinary "points" coupons to meet individual differences in the way of consumption.

Photos: Associated Press, P. A.; Reuters

Britain's Food: Production of Our Precious Tea



FROM A FLOWERING EVERGREEN PLANT, *Thea Sinensis*, which flourishes in the moist, warm climates of India, Ceylon, the Netherlands East Indies and China, comes our tea ration. Pre-war, 450 million pounds of this commodity came into Britain from India and Ceylon, representing an annual consumption of nearly ten pounds per head—or 2,000 cups. Even now we are consuming tea at the rate of 89 per cent of pre-war consumption, stated the Minister of Food on July 17, 1946, and world production is not sufficiently recovered to justify abandoning rationing. This drawing, by our artist Haworth, has been compiled with the assistance of the Tea Centre, opened in London specifically to help people to make the most of their ration.

Stages in the growth of tea include the preparation of jungle ground (1). Seedlings, when strong enough, are transplanted, 2,000 to 4,000 per acre. Under natural conditions they would grow to a height of twenty feet, so heavy pruning is required to promote a maximum of leafy shoots. The young shoots are plucked by skilled women (2) about every ten days during the "flushing season," only

the terminal bud and top two leaves being taken. About 30,000 shoots a day are thus gathered, representing the equivalent of ten pounds of manufactured tea.

Tea contains tannin, caffeine and an aromatic oil, and to make these soluble in water the picked leaves are processed at the factory. Spread on racks, the leaves are first withered (3), hot air passing through, evaporating moisture and concentrating the oil. Next, they are rolled (4) to break open the cells and release the natural juices, this being followed by oxidation (5), which preserves the juices on the leaf-surface and secures a coppery colour and pungent flavour. To check this at the required pitch, leaves are dried or fired (6) on a travelling belt which passes through increasing temperatures, the colour changing to the familiar black. Finally the tea is sifted (7) and graded. Weighed and packed into wooden chests (8) it is then transported by bullock-drawn carts or lorries to the docks (9), where it is loaded from barges on to a ship. Native workers are housed on the tea garden (10).

D.E.M.S. Commemorated in H.M.S. President

ON THE MAIN DECK of H.M.S. President, the plaque (seen on right) is embossed with the D.E.M.S., gun-layer's badge, the figures 1939-1946, and bears the inscription "H.M.S. President and H.M.S. Chrysanthemum, Thames Area Headquarters. In Honour of Personnel of the Royal Navy who sailed from the area in Defensively Equipped Merchant Ships." Admiral Sir Martin Dunbar-Nasmith, V.C., who conducted the ceremony, stands to the right. During the war about 70,000 D.E.M.S. personnel underwent training aboard the two ships President and Chrysanthemum.

GOING ABOARD H.M.S. President, before the commemorative ceremony on June 28, 1946, Admiral Sir Martin Dunbar-Nasmith inspected the Guard of Honour drawn up on the landing stage. Forming it were ten D.E.M.S. ratings of the sixteen who, with one officer, were chosen from H.M.S. Chrysanthemum to represent the D.E.M.S. Section of the Royal Navy in London's Victory Parade on June 8, 1946.

Photos, P.A.-Reuter
PAGE 246



AS A TRIBUTE to the wartime record of the training and depot ships H.M.S. President and H.M.S. Chrysanthemum, moored off Victoria Embankment, London, a plaque was unveiled in the President on June 28, 1946, by Admiral Sir Martin Dunbar-Nasmith, V.C., K.C.B., late Flag Officer-in-Charge, London. Dedicated to the naval ratings who sailed from this area in Defensively Equipped Merchant Ships, the unveiling revealed the impressive record of the D.E.M.S. personnel as a whole: 27,680 officers and ratings passed gun-

nery and defensive equipment courses, the latter qualifying for the badge (inset). D.E.M.S. personnel, an integral part of the Royal Navy, ranged in numbers from two in the smallest to 100 in the largest transports. They fought off aircraft, submarine, mine and surface attacks, to carry supplies to Services and civilians and were present at every Allied landing.

Their record, analysed in part in the Naval Estimates 1944, and quoted by the First Lord of the Admiralty, Mr. A. V. Alexander, stated: "D.E.M.S. ratings and their defensive equipment saved not less than 100 independently routed ships a year, apart from those which were saved by their D.E.M.S. in convoy." This represented the saving of some 1,250,000 tons of shipping per year, but the sacrifices were heavy, 2,713 D.E.M.S. being killed or missing; 841 earned awards, including 263 D.S.M.s, 110 B.E.M.s, 21 Lloyd's Medals for gallantry at sea, and one George Medal.



L. Sgt. R. BOYNTON
Coldstream Guards.
Action: Normandy. 1.7.44.
Age 33.

The Roll of Honour

1939—1946

Readers of THE WAR ILLUSTRATED who wish to submit photographs for inclusion in our Roll of Honour must fill in the coupon which appeared in No. 230. No portraits can be considered that are not accompanied by this coupon

L. Cpl. B. BUSHEN
R.E.M.E.
Died of wounds 10.8.44.
Age 21. (London)



Pte. W. CARTWRIGHT
2/5 Queen's Royal Regt.
Action: Italy 9.9.44.
Age 20. (Stafford)



Sgt. G. CHALLINOR
R.A.F.V.R.
Died of wounds. 5.11.44.
Age 22. (Poniesbury)



L/Cpl. L. H. CHUBB
6th Airborne Division.
Action: Normandy. 7.6.44.
Age 29. (Barking)



Gdsm. L. DAVIES
Grenadier Guards.
Action: Tunisia. 17.3.43.
Age 23. (Harrow)



Gnr. W. J. R. DUDLEY
534/191 Field Regt. R.A.
Action: France. 1.9.44.
Age 20. (Cheadle)



F/Sgt. F. H. ERDWIN
Bomber Command R.A.F.
Action: Eira. 16.4.41.
Age 19. (London)



Pte. H. N. GRIFFITHS
2/5 Leicestershire Regt.
Action: Italy. 12.10.43.
Age 26. (Walsall)



W. G. HAMBLIN
L/Stkr. H.M.S. Dunedin.
Action: Atlantic. 25.11.41.
Age 32. (Reading)



Pte. J. V. HAWKES
1st Middlesex Regt.
Died of wounds. 13.10.44.
Age 24. (Kentish Town)



Gnr. H. L. HIGLETT
70th Field Regt. R.A.
Action: Salerno. 23.9.43.
Age 31. (Hounslow)



Pte. W. C. HILL
1st Green Howards.
Action: Italy. 31.5.44.
Age 22. (Lanchester)



Sgt. A. G. E. HOBBS
Royal Air Force.
Action: Norway. 21.12.44.
Age 22. (East Dulwich)



A. B. J. T. HOWELL
H.M.S. Anking.
Action: Far East. 4.3.42.
Age 19. (Putney)



A. B. I. E. JONES
H.M.S. Kite.
Convoy to Russia. 21.8.44.
Age 20. (Port Talbot)



Flt./Sgt. J. LIDDLE
R.A.F.V.R.
Middle East. 3.6.43.
Age 25. (Newcastle/Tyne)



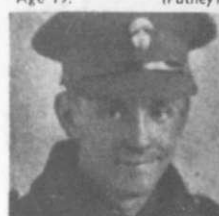
Pte. R. MacPHERSON
4th Cameron Hdrs.
Action: Abbeville. 4.6.40.
Age 21. (Inverness)



Cpl. H. T. MELHUISE
Royal Engineers.
Action: Anzio. 10.2.44.
Age 28. (Birmingham)



Sgt. L. OXLEY
226 Sqn. R.A.F.
Over Germany. 27.7.42.
Age 21. (Dittan Priors)



Rfm. D. R. PLUMB
2nd Cameronians.
Action: Sicily. 1.8.43.
Age 21. (Wellingborough)



W/O C. G. POLKEY
184 Sqn. R.A.F.
Action: France. 25.5.44.
Age 22. (Worsop)



Sgt. G. J. POWELL
R.A.F.V.R.
Over Essen. 5.3.43.
Age 19. (Abergavenny)



Sgt. T. PRICE
35 Sqn. R.A.F.
Over Essen. 25.7.43.
Age 21. (Kimberley)



S/Sgt. G. A. L. REEVES
Glider Pilot Regt.
Action: Sicily. 9.7.43.
Age 29. (Acton Green)



L/Cpl. R. REILLY
Somerset Light Infantry.
Action: Cassin. 17.8.44.
Age 30. (London)



Gnr. F. RICHARDS
Royal Navy.
Action: at sea. 12.1.42.
Age 21. (Swansea)



Flt./Sgt. E. B. RILEY
Pathfinder Force, R.A.F.
Action: France. 24.6.44.
Age 20. (Leicester)



Pte. J. ROBERTS
Royal Welch Fusiliers.
Died of wounds. 5.1.45.
Age 19. (Atherton)



Tpr. J. RYAN
Royal Tank Regiment.
Action: Tilly. 8.8.44.
Age 26. (Clydach)



Sgt. D. B. SACH
R.A.F.V.R.
Action: Rotterdam. 13.5.43.
Age 20. (Romford)



Tpr. K. J. SAYELL
Royal Tank Regiment.
Western Europe. 19.7.44.
Age 20. (Leighton Buzzard)



Gnr. J. SEMAINE
Royal Artillery.
Action: Italy. 5.9.44.
Age 42. (London)



Tel. L. J. SHEVILLS
H.M.S. Lawford.
Action: Channel. 8.6.44.
Age 21. (London)



Pte. F. SLINGER
Royal Engineers.
Action: at sea. 7.1.43.
Age 20. (Burnley)



Pte. A. SMITH
Somerset Light Infantry.
Action: Italy. 5.5.45.
Age 34. (Kensington)



Tpr. J. S. SMITH
2nd Dragoons.
Adelheide. 19.4.45.
Age 25. (London)

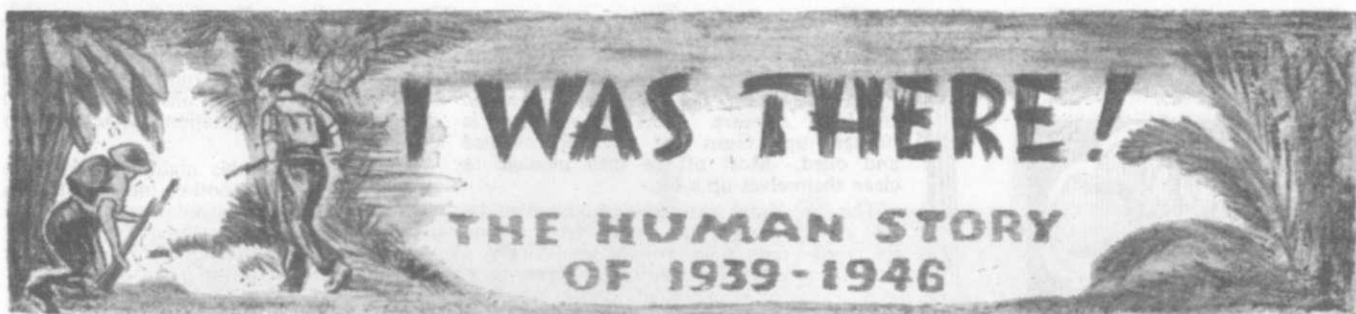


Flt./Sgt. R. Q. STEVENS
10 Sqn. R.A.F.
Over Germany. 1.10.42.
Age 24. (St. Ives)



ARRIVING TO COMMEMORATE BRITAIN'S LAST STAND ON FRENCH SOIL IN 1940, these pipes and drums of 62 Gordon Highlanders, Seaforths, and Cameronians marched through St. Valery-en-Caux on July 7, 1946. Representing the 51st Highland Division (badge, lower right), they paid tribute, the following day, at the graves of 120 of their Division in the military cemetery, killed in or near the town in June 1940. Also attending were the Marquis and Marchioness of Huntly, and the Civic Chiefs of Inverness, Aberdeen and Elgin, towns which have helped in the reconstruction of St. Valery. See also illustration in page 238.

Photo, G.P.U.



A Week in the Twin Knobs Foxholes

Major (then Lieut.-Col.) J. R. C. Crosslé, 1st Battalion the Royal Inniskilling Fusiliers, lightheartedly relates experiences enjoyed while holding a hill in the Mayu Ridge. This was in February 1943, during the abortive British drive into the Arakan, along the west coast of Burma.

WHEN I reached the top of Twin Knobs I thought how worn and haggard the British officers of the 1/7th Rajput Regiment were looking. The Indian soldiers looked, as always, merely resigned. We were due to take over Twin Knobs from the Indian battalion on the morrow, and I had come on ahead to look around.



MAJOR
J. R. C. CROSSLÉ

After I had been given the inevitable cup of tea the Rajput's C.O. said, "It's all right by day, and of course the view is marvellous. But the nights are pretty sticky, and we do most of our sleeping by day." Coupled with the fact that I had met two stretchers being borne down, I thought his remarks seemed somewhat ominous.

Down the Mayu Peninsula, from north to south, runs the Mayu Ridge, ranges of very steep hills densely covered with trees and jungle, the highest peaks being about 1,200 feet. On the west side of the ridge, running parallel to the sea, was a hill about 300 feet high and 200 yards long; at each end was a knob, and in the middle, joining the two knobs, a saddle. The top of the saddle was so narrow that two men could

not walk abreast on it, and the sides so steep that one could not climb it without pulling oneself up by the bushes. That was Twin Knobs. It was covered with trees, thickets of bamboo and jungle scrub.

At the south end the slope was quite gentle, and there was a Jap foxhole about 50 yards away. All round the top, except at the Jap end, where there was a sort of blockhouse, were double rows of two-man foxholes, the top row ten feet above the lower. In these sat rather dirty and jaded-looking Indian soldiers. One of the odd things about Twin Knobs as a position was that it stuck out into the Jap front line.

LOOKING west, one stared straight down on the Jap main position, Donbaik Chaung. Unfortunately the Japs never came out by day, so there were few opportunities of sniping them. We found out later that they were deep underground, in the most beautifully made bunkers. Looking east, away from the sea, there was a very steep ravine, solid with jungle, then rose another range, 300 feet higher than Twin Knobs, also densely covered with vegetation. On top of this ridge were Japs, with machine-guns and mortars, which they let off at intervals.

"They can look down on us but they can't see us, as we are hidden in the bushes. And we can never locate them for the same reason," observed the C.O., thoughtfully, as two mortar bombs landed with a bang. Thanks to the narrowness of the top, both fell well below the foxholes, one short, one over. The more I saw of Twin Knobs the less I liked the look of it.

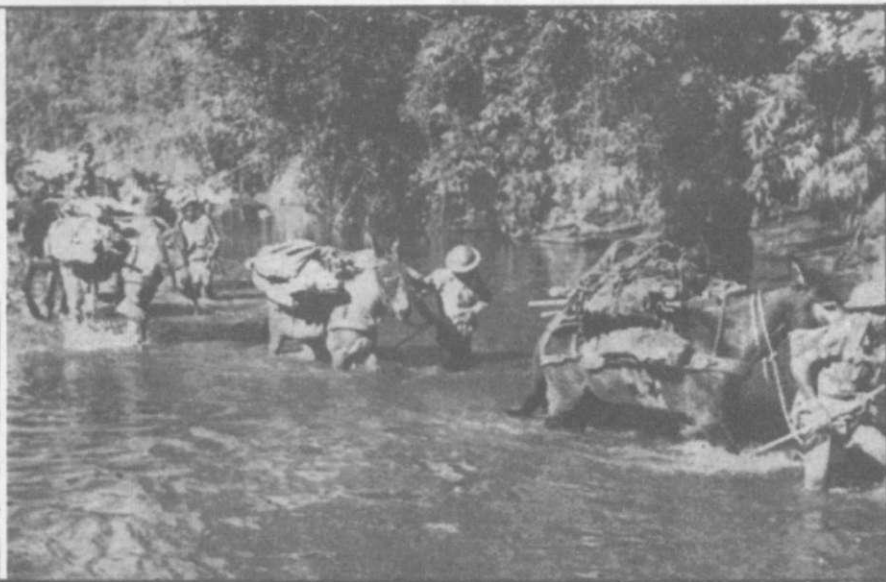
Next morning we moved up, my carefully compiled programme of taking-over being ruined by a Jap sniper with a L.M.G. somewhere up in the hills. He commanded a bit of the path up, and let fly at everyone who came along. By hacking out a new path and blocking the old one we eventually took over with no casualties. Battalion H.Q., A and D Companies, assisted by oddments of H.Q. Company, held the fort on top. The other two Companies were in positions down below, and some way back.

Pandemonium and Spouting Flame

Tea and stew came up. The feeding and water problem was rather sticky, as the Administrative Area was about a mile away. But thanks to the Second-in-Command and the Quartermaster, this worked admirably all the time. The rations and water came as far as possible on mules, and were then man-handled the rest of the way. With dusk fell silence, with everyone in his foxhole.

Suddenly it is pitch dark. The next foxhole is at least a mile off. Rustle. A tree shakes, some leaves come pattering down. Was that a Jap? I wish I could see. Dead silence again. The moon is due at 11 o'clock. Surely it ought to be coming up now? I look at my watch. It is only 8.30. That silly song of Dorothy Lamour's—"Moon Over Burma"—comes into my head. Suddenly, rattle-rattle-rattle goes a tommy-gun somewhere below. Up starts a Bren, followed by more and more, and joined by all the rifles in the world. The noise rises, and after a quarter of an hour dies away. It is two of the battalions down below having a bit of a panic. Thank God we didn't join in.

Dead silence again for what seems a year or so. Bang goes a Bren on top of Twin Knobs. Is it A or D Company? More and more join in, till Twin Knobs is spouting flame. Pandemonium is raging. I ring up



MULE TRANSPORTS FORDING A RIVER IN BURMA (right) were the means by which supplies reached the Royal Inniskilling Fusiliers holding Twin Knobs in February 1943. Faced with almost impenetrable country, in the last stages along the route this mode of transport gave way to man-handling methods. General Sir Archibald Wavell, C.-in-C. India (now Field-Marshal Lord Wavell, Viceroy of India), confers with British Staff Officers (left), at an advanced outpost on India's N.E. frontier in preparation for the Arakan drive early in 1943.



Colours: Sherwood Forest Oak with Brown Trunk and Green Foliage, outlined in White on Black Background.

46TH (NORTH MIDLAND) DIVISION

ORIGINALLY a Midland Territorial Division in the war of 1914-18, the 46th maintained its reputation if not its structure in the Second Great War.

Newly re-formed and drafted to France early in 1940 for Line of Communication duties, the Division's tasks resolved into front line actions, covering the southern flank of the B.E.F., and in defence of the Dunkirk perimeter, May-June. The Division was one of the last units to be evacuated from the beaches.

After two years of Coastal Defence in England, the 46th sailed for N. Africa in January 1943, where individual units fought brilliantly with the British 1st Army. Sidi Nair, Kebel Kerrine and Sejenane were noteworthy actions. On September 9 the Division, under the command of the U.S. 5th Army, landed at Salerno, Italy, and captured the town on the following day. Forcing the road to Nocera, the Division opened the way to the capture of Naples by Allied armour on October 1. Two weeks later the Division forced and controlled the crossings of the Volturno river. Before being withdrawn to the Middle East its successes had assisted the Allies in gaining mastery of the approaches to the German Winter Line along the Garigliano River.

RETURNING to Italy in July 1944, the 46th breached the Gothic Line on August 25. In the attack on Monte Gridolfo, Lieut. G. Norton, a South African with the Hampshire Regiment, won the V.C. (portrait in page 478, Vol. 8).

In November one brigade was flown, in its entirety, to Greece where it helped to solve the problem of civil war; the remainder of the Division followed in February 1945. Back to Italy for the third time, in April, the Division helped the British 8th Army in the final phases of the campaign. After the German surrender in May the 46th assumed an Occupational role in Austria.

A Company. "What on earth is up?" I demand. "Don't worry," I'm told, "someone thought he heard a Jap creeping up." The noise gradually dies away, until silence is again shattered by a din down below. A few Very lights go up, but nothing happens. Here is the moon at last. I look at my watch for the millionth time. It is only just 11.0. I doze off.

Another nerve-shattering commotion wakens me, and grenades shower down on top of the hill. Off go the Brens again. I ring up A Company when the noise subsides and am told "Jap grenades and crackers. I think a Jap patrol slipped up the side and let fly. I don't think there is any damage, and I believe we bagged at least one."

This goes on all night, with intervals of dead silence. At long, long last dawn breaks,

I Was There!

and we come out of our holes and have an inspection. Two are dead. We bury them where they are, in their own foxholes. Breakfast appears. More ammunition is brought up. Guns and rifles are cleaned and oiled. Most of the men manage to clean themselves up a bit.

The day drags through, accompanied by odd mortar bombs and bullets from above. Every now and then, with a loud swish, a shell from a Jap 75 millimetre whizzes past,

apparently just scraping the tops of the trees, bound for our Artillery Gun Lines or Brigade H.Q. On one occasion one *did* hit the top of a tree above Battalion H.Q., but no damage resulted.

After a week of this nightmare existence we were relieved by another Indian battalion and though we knew we were to take a prominent part in an attack a few days later we did not allow that to interfere with our relief at seeing the last of Twin Knobs!

We Stormed the Walcheren Batteries

With the Royal Marine Commandos when they landed on the Westkapelle Dyke in Walcheren on November 1, 1944, Major W. R. Sendall tells the story of the heroic duel of the support squadron with the German batteries and of the battle on the Dyke that finally silenced them.

As dawn broke we sighted on the skyline the slender lighthouse tower of Westkapelle, sticking up alone, apparently straight out of the sea. This unmistakable landmark indicated the spot where, a month before, R.A.F. Lancasters with earthquake bombs had torn a breach in the famous dyke that for five centuries had kept the sea out of Walcheren, flooding the whole saucer-like centre of the island.

Our force of support-craft and landing-craft, carrying three Royal Marine Commandos with supporting troops, and shepherded by that grand old fighting lady H.M.S. Warspite with the monitors Erebus and Roberts, closed slowly in towards the shore. Everything seemed very quiet and still, even the sullen sea, which for two days before had been lashed by a gale. It was an anxious time. For more than a month Walcheren had been battered by our heavy bombers, but we knew that it had been fortified as the very corner-stone of the Nazi Atlantic Wall and bristled with heavy batteries that it was our duty to destroy so that our ships could use the great port of Antwerp.

Warspite's Mighty Broadside

The searoad to Antwerp was up the Scheldt estuary and the Walcheren batteries barred the way. So far they had been silent, but already they must have been aware of our approach. Another thing we knew. Late on the previous night the R.A.F. weather experts had stated that weather would prohibit a really big air effort. Admiral Sir Bertram Ramsay had left to our Commander, imperturbable Brigadier "Jumbo" Leicester, D.S.O., R.M., and Captain A. F. Pugsley, D.S.O., R.N., the Naval Commander, the decision whether or not to launch the assault. After an anxious conference they decided to go in, and at midnight our force slipped silently out of Ostend harbour.

Now the thin line of sand-dunes along the great dyke could be seen on the horizon, but still no sign from the enemy. Then there was a flash and a roar from one of the monitors, a big cloud of brown cordite smoke belled out, hung in the air and slowly turned yellow. Seconds later the detonation thudded on my eardrums. Above the distant line of dunes a feather of black smoke leaped into the air. A few minutes later Warspite hurled her mighty broadside at the enemy. The enemy batteries still stayed silent.

Between us and the shore lay the support squadron, unarmoured landing-craft mounting a variety of guns. They were deploying to engage the big batteries north and south of the gap in the dyke; to the north the Domburg and Westkapelle batteries, known to us as W 17 and W 15, to the south two others called W 13 and W 11. All these had big guns up to 8.7-in., set in concrete emplacements and supported by a mass of smaller weapons. About this time we saw Domburg firing, but in the direction of Flushing, not at

us. This told us that our comrades of No. 4 Commando and the Lowland Division had launched their attack from the south across the river on Flushing.

We hadn't long to wait. The first of our ships to be fired on was ML 902. Then the Germans opened on the support-craft. They replied, but the range was 10,000 yards and both sides ceased, waiting for it to close. Gradually the range shortened to about 4,000 yards. H-Hour—9.45 a.m.—was approaching. Then W 13 and W 15 opened up again on the support squadron with deadly accuracy, the little ships replying with everything they had got.

THERE began then one of the most amazing gun duels of the War. Time and time again the little unarmoured ships closed into the shore to pump their shells into the heavy concrete fortifications, despite a terrible fire of all calibres from the Germans. The biggest of the support-craft—the L.C.G.s—hung on to the main batteries like bulldogs, taking heavy punishment. The smaller craft engaged the subsidiary positions.

Just before H-Hour, rocket-craft let go their salvos with roar after roar of smoke and flame, and as a climax two medium-sized



Major W. R. SENDALL

craft beached north and south of the gap, engaging enemy pillboxes literally at point-blank range. One of these craft burst into flames soon after beaching; the other kept up a rapid fire for twenty minutes till both turrets were out of action. Then it un-beached and sank immediately.

All the fury of the enemy was drawn to the support squadron, so that the landing craft were able to pass through to beach with comparatively slight losses. We were both proud of and grateful to our fellow Marines who manned their guns, keeping them firing though protected only by a light gunshield. The Germans flinched before they did. From one pillbox several men ran out in a panic and were cut down by machine-gun fire in the open.

Our first flight, drawn from 41 R.M. Commando, beached on the dyke itself just north of the gap. They landed on foot, and their first objective was a pillbox spraying bullets along the dyke. The leading craft was hit just before touching down and the section officer was killed. Sergeant Leslie Musgrove took charge. He went straight for the pillbox without a moment's hesitation with his tommy-gun blazing, pausing only to throw grenades. Single-handed he took the

Royal Marine Commandos at Ruined Westkapelle



ON WALCHEREN island, in the Scheldt Estuary, Westkapelle (1) was almost razed to the ground during a month of R.A.F. bombing which preceded the Royal Marine Commandos' landings on November 1, 1944. The operation was designed to silence the enemy batteries on the island which were preventing the use by the Allies of the approaches to Antwerp, already in Allied hands. In support of the landings, converted landing craft of the support squadrons suffered severely whilst heroically engaging the heavier guns on the shores. One of the craft, a L.C.G., shell-ridden and sinking, defies the attempts of her crew to save her (2). At the beach-head, Royal Marine Commandos drive their fighting vehicles off the landing craft (3). By dusk, Westkapelle, Domburg, Flushing and three of the four batteries had been captured.

Photos, British Official

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I Was There!

pillbox, killing or capturing its occupants. Major Peter Wood, commanding the first flight, quickly and coolly directed his men into positions covering the village of Westkapelle, now a pathetic mass of wreckage, half-flooded, with only the lighthouse towering above the ruins.

The subsequent flights all landed in amphibians, which roared ashore among the maze of bomb and shell craters, shattered steel obstacles and huge, grotesque lumps of concrete. Beyond the gap the floods spread out over the flat, low fields, a scene of unutterable desolation. The twisted girders of a big radar station on top of the dunes south of the gap completed the fantastic picture, like a landscape of the moon.

Saving the Lives of the Wounded

North of the gap 41 R.M. Commando, under Lieut.-Col. Eric Palmer, quickly completed the clearance of Westkapelle and engaged the big battery W 15. South of the gap 48 R.M. Commando, under Lieut.-Col. Jim Moulton, cleared the enemy from the ruins of the radar station and advanced on W 13. Not until a firm footing had been won on both shoulders of the breach did the big guns shift from the support squadron and concentrate on the land force.

The so-called beaches were only tiny areas on each side of the gap. The enemy had the range taped, and for more than an hour they poured shells into these areas. Many amphibians loaded with ammunition were set on fire. Ammunition exploded in all directions; fierce flames roared up. The big vehicles could not manoeuvre because of the bomb craters, mines and other obstacles. Many brave deeds were done, not only by Marines but by the Canadian medical personnel, the Assault Engineers and the Pioneers supporting them.

A shell struck the armoured front of one amphibian just before it disembarked from a landing craft. It caught fire and nearly 100,000 rounds of ammunition, together with other explosives, were threatened by the flames. Marine Donald Nicholson stayed in the hold of the amphibian with small arms ammunition exploding around him, throwing out explosives and inflammable material, saving the lives of men wounded by the shell-burst. The craft retracted from the beach, only to strike a mine that blew several wounded into the sea. Nicholson, ignoring enemy fire, jumped in after them and succeeded in bringing several to the beach.

Into the midst of this inferno the second wave of the assault, 47 R.M. Commando to the south and an Allied Commando to the north, beached and roared ashore. One of the first of 47 Commando's craft took a direct hit, which set the amphibians loaded with ammunition and explosive ablaze. Many were killed and wounded, and there were several violent explosions, one man being blown into the sea with a broken leg.

THOUGH not a strong swimmer, Marine F. W. Lanyon dived in after him and dragged him 200 yards to the beach. Lanyon was exhausted and had swallowed a lot of water. The Canadians took him to their beach dressing-station where their doctors were doing heroic work, and put him to bed. When he came round he got up at once and went off to rejoin his comrades—dressed only in a blanket. Having been fitted out with clothes from a casualty, he then joined in the battle again.

By this time a dashing attack by 41 Commando, led by Captain Peter Haydon, D.S.O., broke into W 15 battery and silenced it for good. Haydon found a way round the flank of the defences between the dyke and the floods and, covered by smoke and mortar fire, led his men in to storm. After half an hour's fighting the garrison of 120 surren-

dered. W 17 at Domburg was also silenced by Warspite, aided by a sortie of Typhoons taking advantage of a slight improvement in flying conditions.

48 Commando tried to rush W 13, but the Germans met them resolutely, bringing down heavy mortar fire that killed Major Derek de Stacpoole, leading the attack, and many others. The attack had to be broken off. Here there was no way round the flank, the space between sea and floods being too narrow. It was like trying to fight on the rim of a saucer.

Lieut.-Col. Moulton organized a heavy bombardment, H.M.S. Roberts pounded the defences, and a great concentration of artillery, firing from far away across the Scheldt near Breskens, fell with astonishing accuracy on the German redoubts. Then a squadron of Typhoons put in one of their shattering, pin-point attacks, the mortars opened up, and Captain Edwin Dunn led the Marines in again. Slipping and slithering in the soft sand, Dunn and his men pushed resolutely on. Lieut.-Col. Moulton was right forward, bareheaded among the bullets and shell-bursts, urging on the attack. At last the defences were penetrated, and by nightfall only one small position at the south end of the battery held out. This the Germans evacuated under cover of night.

During the late afternoon 41 Commando followed up their success at Westkapelle by storming along the dyke into Domburg. They drove the enemy, shaken by the heavy pounding from the battleship and Typhoons, from the battery and entered the little town by the lurid glare of the great fires started by Warspite's 15-in. shells. Peter Wood led a patrol to pursue the flying Germans to the edge of the thick woods north of Domburg. Thus at the close of this astonishing D-Day three of the four great batteries were in our hands. Flushing had been taken by No. 4 Commando and the Lowland Division. Only W 11 remained, the big southern battery close to a second gap that the R.A.F. had blown in the dyke just north of Flushing.

Nightmare Advance in Sandstorm

Early next morning 48 Commando pushed up and drove the Germans out of Zouteland, a little village between W 13 and W 11. Zouteland was badly knocked about but had escaped the utter ruin that had fallen on Westkapelle. Here the Dutch girls came out to greet our men. At Zouteland 47 Commando took over the battle from 48 and pushed on till they reached a broad anti-tank ditch and outer ring of minefields covering W 11. Lieut.-Col. C. F. Phillips, D.S.O., who had led this unit in the brilliant assault on Port-en-Bessin in Normandy, planned a double attack. The dry land between sea and floods was wider here. One thrust aimed to cross the anti-tank ditch and capture a German position at Klein Valkenisse in the low-lying ground; the other was directed along the crest of the sand dunes against the battery.

Major J. T. E. Vincent led the first attack, which got across the ditch, but his force came under concentrated mortar fire in the open and suffered severely. Vincent himself being wounded. The attack along the dunes was commanded by Captain Dick Flower, who led his men for nearly a mile across the soft, steep sandhills covered with thick belts of wire and minefields. They were under heavy machine-gun and mortar fire the whole way, and many fell. Dick Flower walked about among his men, urging them on with a casual disregard for the fire, though he was in full view of the enemy. That advance was a nightmare. A strong, cold wind was blowing, whipping up a blinding spray of sand—so soft and loose that it was like struggling through newly fallen



snow in the teeth of a blizzard, except that the sand clogged automatic weapons, gritted between the teeth and blinded the eyes.

Within thirty yards of the first line of defences Dick Flower was wounded in the arm and chest, but under close fire of all kinds he rushed the first German weapon pit and killed the three men in it. Bitter hand-to-hand fighting followed. The two Troops following up suffered many casualties, both Troop commanders, Captains M. G. Y. Dobson and J. D. Moys, being hit. The Germans counter-attacked and drove Flower and his men back. That indomitable leader was hit again, but he continued to inspire his Marines with his courage and cheerfulness.

Despite this gallantry it proved impossible to break into the battery. Night was falling and all the Troop commanders had been wounded. Ammunition among these forward troops was running short. Signallers and their wireless sets were casualties, so that

I Was There!

communication broke down. The Adjutant, Captain Paul Spencer, made his way forward in the darkness and reorganized them. Food, water, ammunition were all manhandled up over the steep dunes, and the wounded carried back. The position was organized in time to beat off a strong night attack.

The enemy came in just after midnight, calling our men to surrender, a request that was answered with laughter and a fierce burst of fire that stopped them dead. The ground won at such cost was held, to make a firm base close up to the defenses for a renewed attack next day. In the morning, Lieut.-Col. Phillips asked for and obtained a most shattering concentration of artillery fire. The whole weight of the massed artillery from Breskens fell upon W 11. The Forward Observation Officers, from the high dunes, could see the flash of their guns across the broad estuary, the bursts upon the German bunkers and the Marines advancing to the final assault across the bare slopes of sand.

The Germans fought desperately, and again succeeded in checking the attack with a withering fire from their machine-guns. Then Paul Spencer led a bayonet charge, in the old style, up a steep sand slope, to break into one of the main positions. Having gained a foothold, Spencer pushed on through a maze of communication trenches and underground passages, driving the enemy before him. He was splendidly supported by

Sgt.-Major J. P. England. Under fire from a trench and a concrete pillbox called "The Umbrella," England blinded the machine-gunners in the pillbox with a smoke grenade while he attacked the trench. Killing or capturing the defenders, he pushed on boldly into the network of trenches and tunnels.

Sweeping Irresistibly Forward

In face of this terrific attack and dazed by the shelling—many of the prisoners were half-crazed, the pupils of their eyes dilated till the whites were invisible—the German resistance cracked at last. They began to surrender in batches, and the advance swept irresistibly forward till the Marines reached the edge of the second gap. As dusk was falling they saw on the other side the green berets of No. 4 Commando, who had fought their way up from Flushing. Though there was more fighting to be done up in the north beyond Domburg before the island was finally cleared, the battle was won.

I shall never forget the first visible proof of our victory. I was standing next morning at the top of the radar tower near the Westkapelle gap when I saw a row of dark smudges out to sea, moving into the estuary. There was a sailor of the Naval Beach Party by my side. "What are those?" I asked, pointing. "Minesweepers," he replied promptly. They were going in straight away to sweep the great sea highway up to Antwerp.

were lucky. Four hours on and four off was the regulation watch, but very often it was sixteen hours on. We sailed very slowly so as to reach Sidi Barrani by the following midday. Then, with engines full ahead, we would enter Bomb Alley. From that moment I was always scared, wondering what Jerry would manage this time.

The attacks generally came so suddenly that we hardly ever had time to put on our lifebelts or tin hats—but without these we had greater freedom of movement. We often opened fire with our pom-poms without orders; to have waited those seconds would have spelt disaster. The Stukas seemed to come down from all directions, but that was because the skipper changed course so frequently. Some came so low they nearly took the mast off, and even so they missed us with their bombs. I used to fire bursts of about five to a plane, and then start on another one, because if we had let one have the lot the other—or others—would have done just what they liked.

After an action the gun pits were full of empty cases, and we reloaded the guns and ready-use lockers, praying for night and a little more safety. If we shot any down or damaged any, only the German air force could tell us. Our fighters didn't do so badly when they were with us, in spite of being outnumbered about four to one. They were mostly South Africans and they came to see us at Mersa Matruh whenever they could manage it.

At night we could see the German-held coast, and if they heard our powerful engines their ack-ack promptly opened up. The engines made so much noise that a dozen Hurricanes might pass over us without our hearing them. Just as dawn was breaking we would be headed through the boom at Tobruk, and Bardia Bill would begin to bark. That long-range German gun earned its nickname by reason of the fact that it was



A. B. C. LAWRENCE

We Ran the Gauntlet of Bardia Bill

Taking supplies from Mersa Matruh to Tobruk, during the period May-October 1941, was the job of destroyers and L.C.T.s, the latter known then as A Lighters. Adventure in plenty came to the lighters' crews, as told by Able Seaman C. Lawrence, who acted as gunner-helmsman-cook as required. See also story by Lieut. Gilbert Smith in page 61.

WE had 20 of these A Lighters, the first to be built. After Tobruk was relieved there were only four left, and I believe they are still afloat today. Each crew consisted of two officers, two motor mechanics, two stokers, one signalman, a coxswain and six seamen. H.M.S. Stag K, later known as H.M.S. Saunter, was our base, controlling operations.

About six A Lighters worked from Mersa Matruh at a time—two at Tobruk, two on the way and two loading at Mersa Matruh. If the German air force had done its job, none would have got past Sidi Barrani. I do not

like to think of what would have happened if, instead of using Stukas and bombs, they had used fighters armed with cannons. We carried 4,500 gallons of 87 octane in our tanks, and a shell could have passed right through one and into the other. Once one of his fighters came down and gave us a burst, but only cut our Carley float adrift.

In Mersa Matruh we made as much noise as we pleased, but as we set sail on the 35-hour outward trip nobody would speak except in course of duty. The double journey occupied, all told, about 98 hours, and if in that time we had 13 hours rest we



CELEBRATING CHRISTMAS 1941 AT TOBRUK, the spirit appropriate to the season is evident in the bearing of the crew of Lighter A.9 (left). Seated, front row, are the two officers of the lighter. The author (Able Seaman C. Lawrence, portrait at top of page) of this story stands at the left in the back row. Used for conveying petrol, this A Lighter, Mark I (right), was one of the original twenty, of which no more than four survived, working from H.M.S. Stag K, base ship which controlled operations.

I Was There!



GERMAN GUNNERS AT BARDIA, after the first occupation of the town by Rommel's forces in April 1941. From that side of the Tobruk perimeter the German long-range gun nicknamed Bardia Bill shelled A lighters conveying supplies to the beleaguered garrison of Tobruk during the enemy investment of April-November 1941.

Photo, Sport & General

on the Bardia side of the Tobruk perimeter; somehow it managed to survive not only Allied air attacks but a Naval bombardment. The shelling would start as we reached the boom entrance—the gunners knew our timetable as well as we did—and sometimes we had to make a dash through the shells to the shelter of a wreck, of which there were plenty. If the shells happened to concentrate on the wreck we had chosen to anchor the lighter behind it wasn't so pleasant.

Troops would be waiting at Tobruk with camouflage nets to cover us from the sight of the Stukas, and they would unload us at

night. Grand fellows they were, too—back from the perimeter for a rest. And what a rest! Unloaded, by the following nightfall we would be on our way back to Mersa Matruh; but unless we were due for a refit our return to base simply meant reloading and another trip.

Later, when we carried tanks to Tobruk, we felt a little more secure, for we had the tank crews to help us ward off air attacks with their machine-guns. They used to say they would rather fight their way back overland than return with us. We preferred sailing back to taking a chance by land in a tank!

Death Lurked in the Wake of Battle

A gunner officer, John Fortinbras, who took part in "Operation Clean-up" in the West Rhine area in March 1945—the greatest single clearance scheme of the N.W. European conflict—instances the perils and immense labour involved in work on the battlefields after the fighting had passed on.

ON the morning of January 24, 1945, during a period when vapour trails of Flying Fortresses on their way to bomb Germany etched white patterns in the blue overhead, at Nieuport on the Belgian coast a section of R.E.s was clearing beach obstructions in front of heavy A.A. guns

engaged in firing practices. I was watching our bursts in the sky. Suddenly there was an explosion far different in tone from the 3·7's crackling *woosh*. Into the sky, from the beach in front of the gun park, a dirty brown column of smoke spiralled. Gunners at once ran to the tarmac's edge—the limit



DEMOLISHING HITLER'S WEST WALL FORTIFICATIONS was one of the tasks of battlefield clearance that came with the end of the War—many of them fraught with hidden perils, as told here. A Belgian demolition expert, with pneumatic drill and donkey-engine, tackles a large portion of reinforced concrete emplacement near Ostend.

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of safety. Before them, amid the sand dunes, they saw the dismembered portions of a sapper who had been hard at work a few moments previously. A live minefield lay in front of him. "I was watching him," said a comrade, "and I thought he seemed a bit cool, hacking away at mines with his shovel."

Holzminen (wooden mines), forerunners of the deadly *Schumminen* (shoe-mines) lay thick in the sand, in some places shelved one above the other and displaced from their original positions by tidal forces, and because of the temperature, 30 deg. F., the ground was slightly frozen. This particular detachment of sappers, the R.E. sergeant in charge told me, had lifted 20,000 of them. As so often happened in tragedies of this sort the man who lost his life had been one of the ablest operators. Fifteen minutes later, a sapper who had been only five yards in rear of his pal at the time of the explosion was again at work, feeling, probing, locating, neutralizing and shovelling out

Booby-traps in Seaside Chalets

At the West Wall, between Nieuport and Ostend, Belgian demolition experts, blue overalled and smiling, toiled with pneumatic drills, donkey-engines and other devices, knocking down the massive, deeply embedded emplacements, disguised for the most part as kiosks; cafés and chalets by Hitler's camouflage artists. They could afford to be cheerful, for there was little risk. The danger lurked in adjacent sand dunes and waste tracts beside semi-derelict buildings, especially those enclosed by barbed wire fences, which had little bits of wire, looking like loose ends, projecting upright from the tops of odd posts—the Nazis' private sign for denoting the presence of live minefields.

Here and there you could read notices displaying the gruesome skull and cross-bones with the warning "Vorsicht! Lebensgefahr. Minen. (Beware! Danger to life. Mines)" repeated on the same board in French and Flemish. Houses in the locality were unsafe, too, especially those round Middelkirke, for in anticipation of our landings the Nazis booby-trapped very thoroughly these once popular seaside boarding-houses and lidos, including the tiny chalets of the Lac aux Dames. They failed in their purpose, as the Allied attack in this region eventually came from the landward side.

In France it was estimated that Allied Forces had recovered more than 40,000,000 of the 50,000,000 mines sown under Nazi orders, chiefly in coastal areas. It was, however, the odd thousands which engendered the greatest danger. Skilled, too, as engineer mine-lifters became, with their sixth sense of danger and their experience of counter-lifting devices, it was not possible for the work to be completed without fatal casualties. Often enough, as part of their harassing tactics to impede pursuit, the Nazis scattered grenades haphazardly in their wake, leaving them primed and with the safety devices removed; but this practice seldom deceived our recon parties.

Liberation Marred by Tragedy

At Giel, in Normandy, during the time of the Falaise Gap, before anyone could give any thought to battlefield clearance, the joy of this little village at liberation was darkened by a tragedy. A grief-stricken mother told me the story. Her three children, a boy aged eight, and two girls, aged five and six, were playing in a lane immediately after we had liberated the village, when one picked up an abandoned stick grenade. It exploded instantly. All three children were killed. It is discarded missiles like these stick grenades and egg grenades, or anti-personnel mines, like picric acid "bottles" and wooden shoe-mines, which, left lying around, claim

I Was There!



USING GERMAN EXPLOSIVES two Royal Canadian engineers prepare a detonator at the entrance of a concrete bunker at Wilhelmshaven, before demolishing the fortifications shielding the entrance to the U-boat base. Photo, Associated Press

many innocent lives long after the tide of battle has rolled by.

But that is not the only reason for battle-field clearance. The greatest single clearance scheme of the N.W. European struggle, "Operation Clean-up" in the West Rhine area, following immediately after the Rhine crossing on March 24, 1945, had tactical urgency behind it. Prodigious quantities of ammunition had been accumulated for the supporting artillery fire plan, but with the crossing of the great water-barrier more easily forced than had been expected only a small percentage was used.

Ready-made Rhineland Supply Base

Hence, with the enemy in flight, largely a disorganized rabble, and with guns rumbling after him ready to soften any point of resistance obstructing our armour, this Rhineland area of swiftly evacuated sites, each left with stacks of ammunition beside empty pits, became a supply base ready-made. From here, supplies could obviously be ferried forward to our pursuing troops far more swiftly than if the ammunition convoys had to trek all the way back to Antwerp.

Accordingly, a gigantic scheme was "laid on." I took part in it. Two months of hard work, involving 5,000 to 7,000 men, were needed to clear the area. One difficulty was to convince gunners who considered

themselves veterans of the bridge-head that here was a task as important as dropping shells on the enemy, because everyone yearned to be in at the kill. However, the men peeled off their coats and humped every type of shell, from 40 mm. Bofors to 5.5 and even 9.2 super-heavies.

It amazed many to see how thick the ammunition lay on the ground—proof enough of immense artillery preparations. In one area alone close on 2,000 tons of 25-pounder shells had been left, and at least 10,000 unexpended smoke shells. Every piece was shifted. The job was not without its humours or hazards. In one instance a recce party in a 15-cwt. wireless truck, whilst prospecting for a German minefield on the edge of a gun area, took a sudden toss into a deep ditch with three feet of stale water at the bottom. They had fallen into an anti-tank trap cunningly concealed beneath brushwood.

The Search for Hidden Arms

Again, the officer in command of the enemy ammunition dump established near Xanten received one day a curt message which said, "Discovered German girl occupying farm building with Mausers stacked inside: your disposal instructions awaited." Back went the reply, "Girl is your baby; we'll take her arms." This was at a period when sabotage was still thought likely, and intensive house-to-house combings for concealed weapons were ordered.

Not an agreeable job! More than once when searching those wretched, half-ruined Rhineland farmhouses and outbuildings, which were crammed tight with refugees, sometimes two families occupying a single room, you had to turn ailing, wounded and infirm people out of their beds, and probe their bolsters and pillows (if any) for rifles, pistols and anything else that was dangerous. But as a result the farmers could till their holdings with little danger of encountering infernal objects, and—even more important—what was virtually a huge arsenal was denied to roaming gangs of terrorists which later infested the countryside.

NEW FACTS AND FIGURES

THE "security" cloak which covered formation signs during the War has now been lifted and in his recently published book, *Heraldry in War: Formation Badges 1939-1945* (Gale & Polden, 12s. 6d.), Lieut.-Col. Howard N. Cole gives details and illustrations of over 300 badges of the British and Allied armies. These, with brief histories of the formations which wore them, are confined to Brigade level and upwards, but even so the author does not claim that his record is complete.

A FEW formations in the British Army reassumed their 1914-18 badge in the Second Great War: the Guards Armoured Division bore the "eye" of the former Guards Division; the 51st (Highland) Division retained its famous "HD," and the 55th the red rose of Lancaster. The signs became widely used, beyond the original intention of distinguishing personnel and vehicles. Routes allotted to formations were often signposted by means of a directional arrow and a stencilled badge on a board, billets and captured equipment were similarly marked. After the end of the War the famous boar of XXX Corps appeared on the sign of more than one German inn, and it is perpetuated by a statue at Nienburg (see illustration in page 609, Vol. 9).

ON June 18, 1945, releases from the Services commenced; at first modestly, at the rate of 30,000 a week, gradually increasing to 60,000 a week in August. With the sudden cessation of hostilities in the Far East in August 1945, there was quick acceleration of the release rate; by the end of December 95,000 men were passing

through the Civilian Clothing Depots every week. In January 1946 the figure reached 100,000. An average of 500 tons of clothing was moved weekly—during the busiest time as much as 780 tons in one week, to keep the distributing centres supplied. No less than 96 per cent of the items required were issued to the men at the Civilian Clothing Depots on the day of their release.

DURING the first year of demobilization 3,150,000 outfits, or 31,500,000 separate items, were issued, embracing a multiplicity of sizes (40, later increased to 60), colours and styles. This is probably the largest single undertaking in the history of the clothing industry.

NEARLY 300,000 men and women were specially trained during the War, for the armed forces and industry, in institutes controlled by Local Government authorities. Ministry of Education figures are: for radio, 59,815 men and 2,145 women; Army tradesmen, 86,302 men; naval artificers, 7,969 men; cookery, 3,667 women; A.T.S. clerical, 8,480 women; intensive engineering, 3,707 men. Further education was also provided for 5,749 mining entrants.

ON June 22, 1946 (the fifth anniversary of the opening of Hitler's onslaught on Russia), it was announced that mines had been cleared from all formerly invaded Soviet territory. More than 70,000,000 mines, shells and bombs were detected and disposed of in two-and-a-half years. Helping in this work of clearance were tens of thousands of volunteers from the Civil Defence organizations.

The New Uniform for All Ranks of Our Army



DEMONSTRATION OF OUR NEW 'No. 1 ARMY DRESS' took place before H.M. the King, in the grounds of Buckingham Palace, on June 25, 1946. In indigo blue the uniform, for all ranks, bears a regimental colour stripe down the trousers, and similar coloured piping along the tunic epaulets. The dark blue beret worn when "walking out" is replaced by a forage cap on ceremonial occasions. Certain regiments will retain uniforms in traditional colours, and Scottish regiments their distinctive headdress, kilts and trews. Some modifications in detail may yet be made.

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