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When the First Lord of the British Admiralty presented the Royal Naval Estimates in London on March 9, he not only emphasised the advancement made in research, strategy, and construction, over the preceding year, but also frankly revealed the more acute problems which the Board had been called upon, or, in some instances, is still being called upon, to solve. For solved they must be. None of the modern developments in the technique of war have in any way reduced the importance of naval defense.

Perhaps chief among the problems is that of manpower. In asking the British Parliament to vote the Royal Navy £35,000,000 (to which will be added £4,000,000 under the Mutual Defence Assistance Agreement) the First Lord said that the past few years had been difficult ones. The Navy would not have been able to maintain in service many men whose engagements had not expired. When the First Lord of the British Admiralty presented the Royal Naval Estimates in London on March 9, he not only emphasised the advancement made in research, strategy, and construction, over the preceding year, but also frankly revealed the more acute problems which the Board had been called upon, or, in some instances, is still being called upon, to solve. For solved they must be. None of the modern developments in the technique of war have in any way reduced the importance of naval defense.

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Indeed, in the First Lord's mind the problem of manpower was clearly a major one, and in emphasising it he went on to say: "I do not think it is generally realised that nearly one-third of our regular ratings — excluding National Service men — are under 21, and another one-third under 25. We have a great shortage of men with eight years' service and upwards and their places have to be filled by abnormally large numbers with below seven years' service." To accentuate the problem, the seven-year men are now beginning to come to the end of their engagements in large numbers, and if they do not re-enlist the proper manning of Her Majesty's ships will present a very serious problem indeed.

However, measures are about to be introduced to improve conditions of service, particularly those regard to service abroad, and it is hoped that in this way the seriousness of the position will be minimised and thus to a major extent averted. The question is one that must be resolved and it will be.

RESEARCH AND DEVELOPMENT.

In the field of research and development in new ships, aircraft, weapons, and equipment, progress, however, is one of grand results. In this regard, the First Lord stated that since World War II the Navy has been carrying out an extensive programme, the results of which have been notable. Among the more important of these results are the new interest in developing a new class of destroyers. These destroyers are designed to provide a more effective anti-aircraft weapon than the existing classes.

Aircraft carrier from which a new twin jet Naval interceptor fighter and other new types of aircraft will operate, will be fitted with angled decks and steam catapults. The "Centaur," now preparing for service, will be the first operational aircraft carrier of the Royal Navy with an angled deck. H.M.S. "Eagle," will have angled decks fitted in due course. The Radar equipment fitted in the "Centaur" is considered to be the finest in any ship afloat. It is expected that the fleet carrier "Ark Royal," and the light fleet carrier of the "Hermes" class, the "Albion" and "Bulwark," will be completed during 1954-55.

In regard to submarines, two experimental submarines with a new system of underwater propulsion are nearing completion and are expected to undergo trials this year. The system is one using High Test Peroxide in a closed cycle engine which generates power for much faster under water speeds than have previously been attained. These boats will also have the latest escape devices.

Other progress in submarine development includes the continued study of systems on nuclear propulsion and the building of new and improved midget submarines. The new "midgets" will be completed this year.

Aircraft will play an increasingly important part in anti-submarine warfare. Three of the previous women destroyers built during the last war have been and are continuing to be converted into fast anti-submarine frigates to take their place in the new anti-submarine fleet. Many of these ships have been largely operational service and others will join the fleet during the present financial year. These ships will later be joined by new frigates now under construction, three of which will enter service this year. Development and production is proceeding at a whee jet swept wing carrier, the replacement for the "Hermes" class, the "Albion" and "Bulwark." These boats will also have the latest escape devices.

The new design minesweepers are also coming into service in increasing numbers.

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To those who know their history, what is it that they chiefly remember as the traditional bulwark that has stood between the would-be invader and the sacred shores of the Motherland? No need to search the tomes of history to find the answer to that question. It is the Navy, of course. Drake's destruction of the Spanish Armada, Nelson's victory at Trafalgar, Jellinek's Jutland—these are but three of the many eventful occasions on which the British Navy has served that noble and sacred purpose.

And coming nearer to our own days and to our own Australian shores, what was it that saved Australia from invasion in World War II? Primarily the Navy, again, of course. But for the great allied victories of the Coral Sea, Midway, and Bismark Sea, Australia might to-day be in Japanese hands.

And as it has been in the past, so primarily it must ever be, if need be, when danger threatens, in the future. We must never lose sight of that essential fact. The Navy, particularly the Naval Air-Arm, must ever play an important part in the protection of Australia from invasion and in the maintenance of sea communications, so vital to our industry and our continued existence as a free nation.

Thus any institution that promotes the furtherance of this realisation and the building up of this great national essential, should have the support of everyone of us.

That is why the Navy League of Australia has so great and proud a call upon the sentiments and the support of every loyal and true Australian. We all agree with that. Beyond question.

But it is not enough that we should merely agree. It is up to us, as far as lies within our power, to do something to make our agreement effective.

The object of the Navy League of Australia, like its older counterpart, the Navy League of Britain, is to keep before the public the importance of sea power. The League sponsors means by which this information can be disseminated among the public and so keep alive the British maritime tradition.

Sea power is effectively exercised by a nation when, in times of peril, it is able to keep the sea communications open for its own use and, at the same time, substantially deny them to the enemy. Successfully exercised by an island nation, as has traditionally been done in the past by our great island Motherland, it means survival, whereas failure to maintain sea power can mean defeat even without invasion.

Nowadays there are seven elements in the exercise of sea power. These are: Combat surface ships, the fleet air-arm, submarines, bases, a mercantile marine to derive full benefit from sea power, personnel to keep sea-going services manned and, finally, the industrial potential which has to keep pace with the wide and varied needs of these elements.

It will be noted that air power, sometimes regarded as a separate entity, is, nevertheless, one of several vital elements in sea power. It cannot alone keep sea communications open. Its expression as applicable to sea power, and its place in the fighting Navy, is the Naval Air-Arm.

As a small nation, Australia cannot hope fully to maintain all these elements but she has a grave responsibility in building up those aptly suited to her population and geographical position. Those things which she can best perform to-day in these directions are the mainenance of certain surface ships and elements of the fleet air-arm, development of good bases, development of her mercantile marine, and the encouragement of young people to acquire a knowledge of the sea. So important in these matters is the development of personnel that The Navy League of Australia sponsors the Australian Sea Cadet Corps, as demonstrated in the League's brochure (to be had on application) designed for parents and guardians of boys who may be interested. It tells of and illustrates the Sea Cadet in training.

Another important thing to remember: A Navy cannot be enlarged quickly. It takes time and must be substantially planned and built up in times of peace. Remember, too, that the price of freedom is preparedness and constant vigilance.

You can help the Navy League of Australia in carrying out its work for preparedness and constant vigilance by becoming a subscriber to it. All British subjects who signify their approval of the objects of the League arc eligible for membership.

The League consists of Fellows (Annual or Life) and Members (Annual or Life). Subscriptions are: Fellow (Annual) £1/1/-; (Life) £10/10/-; Member (Annual) 10/-, (Life) 25/-.

Join the Navy League now.
The broad overall picture presented by the First Lord is therefore not only interesting but also heartening and complimentary. Only the manpower problem, a human one, alas, gives preparedness in British Naval defence.

The following table shows the major strength of the British Fleet in classes.

<table>
<thead>
<tr>
<th>Class</th>
<th>Active Fleet</th>
<th>Training and Experimental (Special Complements)</th>
<th>In Reserve, including Reducing to Reserve and Preparing for Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battleships:</td>
<td>&quot;Vanguard&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fleet Carriers:</td>
<td>&quot;Eagle&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light Fleet Carriers:</td>
<td>&quot;Glory&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ferry Carriers:</td>
<td>&quot;Warrior&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cruisers:</td>
<td>10</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Daring Class Ships:</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Destroyers:</td>
<td>20</td>
<td>3</td>
<td>69 (f)</td>
</tr>
<tr>
<td>Frigates:</td>
<td>33</td>
<td>21</td>
<td>115 (g)</td>
</tr>
<tr>
<td>Fast Minelayers:</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Monitors:</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Submarines:</td>
<td>37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minesweepers:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ocean:</td>
<td>21</td>
<td>3</td>
<td>38</td>
</tr>
<tr>
<td>Coastal:</td>
<td>6</td>
<td>5</td>
<td>56</td>
</tr>
<tr>
<td>Inshore:</td>
<td>9</td>
<td>3</td>
<td>52 (j)</td>
</tr>
</tbody>
</table>

(a) Employed on non-flying training duties in Home Fleet Training Squadron (to be relieved by 3 Light Fleet Carriers).
(b) Modernising.
(c) Preparing for Service.
(d) Training for Service with the Home Fleet Training Squadron.
(e) Includes one preparing for Service.
(f) Excludes one refitting for use in Pakistan.
(g) Includes two for loan to Norway.
(h) Includes two returned from loan to Greece and two from loan to the Netherlands.
(i) Includes those being fitted out for minesweeping.
(j) On trials and troop training duties.
(k) Reducing to reserve after Service in Korean war area.

The foregoing table does not include vessels of the fleet train, attendant ships and numerous small craft. There are some 240 ships of the Royal Fleet Auxiliary Service, comprising many seagoing tankers, tugs, tenders, diving and salvage craft, ammunition and store carriers, boom defence vessels, net layers, cable vessels, etc. There are also in service or in reserve 16 Depot, Repair and Maintenance Ships, 10 Surveying Ships, nearly a hundred Fast Patrol Boats, over 140 Motor Launches, 35 Landing Ships, 14 controlled minelayers, and 15 Naval Trawlers.

July, 1954
"Peroxide" Submarines Have High Speed, Long Range

EXPERIMENTAL VESSEL FOR BRITAIN'S ROYAL NAVY IS LAUNCHED.


The fact that Britain's Royal Navy is to have two experimental submarines attaining high underwater speeds with the aid of hydrogen peroxide, and is laying down several other boats with a better performance than any previous vessel, is of major importance.

Since it has long been the British Admiralty's policy not to disclose publicly the building of a submarine until she is actually launched, it may be assumed that the programme is well advanced, although few details about it have been made available so far. The fact that the Royal Navy now feels itself able to resume submarine construction after six years despite the scientific advances that have chased another since 1948 — and are likely to continue for some time to come — can also be regarded as significant.

Britain has now about 60 submarines. The last additions to the Fleet were the big "A" class boats. These are reported to displace 1,620 tons when submerged and have a surface speed of 8 knots and an underwater speed of eight knots.

The 15 submarines of this class were all completed within three years, the first, the "Amphion," being ready in March, 1945, and the last, the "Acheron," in April, 1948.

High Endurance

The "A's" are boats of high endurance. Fitted with the "Snort" breathing device, they can travel under water for thousands of miles. "Alliance" and "Ambush" stayed submerged for weeks on end in 1947-48 during tests in tropical and arctic seas. Last June another boat, the "Andrew," "snorted" 2,500 miles (4,000 kilometres) across the Atlantic in 15 days. She created a world record at the Bay of record by travelling under water from Bermuda to the English Channel.

Such performances, remarkable as they may be, are likely to be surpassed by the newest submarines. Recently I attended the launching of one of them — the "Explorer."

In its way the launch of the "Explorer" was not less historic than that of America's "Nautilus," the world's first atomic-powered submarine which entered the water at Groton, Connecticut, on January 21. The "Nautilus," and the United States Navy's other experimental atomic submarine, the "Sea Wolf," which was begun later, are expected to create new underwater speed records, and actuated by a small amount of "everlasting," atomic fuel, have an operational range so great as to be limited only by the endurance of their crews. Carrying their own oxygen and being independent of the surface, they are the realisation of an old dream of the naval architect true submarines.

Much in Common

Britain's hydrogen peroxide "Explorer" and her sister-ship will have much in common with the "Nautilus" and "Sea Wolf," although their propulsive methods are different. Being able to dispense with the "Snort" breathing tube and having, if necessary, a greater operation range, the United Kingdom experimental boats are also true submarines.

Hydrogen peroxide supplies the oxygen needed to ensure combustion of the propulsive fuel. Thus the submarine can run submerged at speed on her main engines, and does not need an oxygen supply which has hitherto had to be drawn into the boat through the "Snort" from the atmosphere.

The British Admiralty gives few details about this revolutionary new type of submarine. It records the "Explorer's" length as 225 feet (68.5 metres) and her beam as 16 feet eight inches (5 metres), says she is capable of high underwater speeds and that she incorporates the latest escape devices, including the new one-man submarine escape chamber.

No facts are revealed about intended armament. I understand that the "Explorer" will be able to travel submerged between 20 and 30 knots, a speed believed to be appreciably greater than that of any submarine now in service.

To help her maintain such a speed — a speed which may well lead to major changes in the future tactics of warfare at sea — she has been so streamlined that she looks almost like a giant torpedo.

Instead of the port and starboard ballast tanks causing the bulges which are so distinctive in the appearance of conventional submarines, the tanks are set well down in the "Explorer" so as to merge into the general streamlined effect of that fat, rounded hull. As seen at the launching, the conning tower appeared smaller than usual and, without its casing, was quite overshadowed by the Admiralty flag flapping above it as the submarine slid down the slipway to the water.

The "Explorer" is aptly named. She is the first ship in the Royal Navy proper to be so called. She is the prototype of submarines whose performance will open up new fields of marine research and military, therefore, creating new problems in naval science.

Mr. C. Harold Hopkins, a noted deep-sea fisherman, of Balboa, California, U.S.A., in March last broke a world record at the Bay of Islands, off the New Zealand coast, by landing, with light tackle, a striped marlin weighing 331 lbs.
NEWS OF THE WORLD'S NAVIES

H.M.S. "SHEFFIELD" VISITS TEXAS

H.M.S. "Sheffield," wearing the flag of the Commander-in-Chief of the Baltic and North Atlantic, visited Houston, Texas, on May 6. The visit was believed to be the first visit to this port by a British naval vessel. The Commander-in-Chief of the British naval forces, who visited Mrs. L. J. Stevens, C.B.E., C.B.E., the Houston mayor, was the "Sheffield's" official representative to the Legislature and was received at the port by a large crowd.

U.S. NAVY PLANE CRASH

A Press message from Corpus Christi, Texas, on May 6 said that wreckage of a missing United States Navy marine patrol flying boat with ten men aboard had been sighted off Brownsville, on the Texas-Mexico border. There appeared to be no survivors. A U.S. Navy spokesman said that the missing plane was still burning when sighted.

H.M.S. "VANGUARD" TO BE REFITTED

H.M.S. "Vanguard," Britain's sole battlecruiser in service with the active fleet and now flagship of the British Home Fleet, is to be taken in hand for a refit at Devonport in the English autum. It will be the first time the ship has been used as flagship by H.M.S. "Tyrconnel," destroyer depot ship.

WREATH FROM H.M.A.S. "ANZAC" LAID ON DUTCH NEW GUINEA WAR MEMORIAL

A wreath bearing the inscription "From the Captain, officers and men of H.M.A.S. "Anzac"/Laid on the war memorial at Hollandia (Dutch New Guinea) on Thursday, May 6. It may be temporarily assigned to the "Vanguard," which will be the first time it has been used as flagship by H.M.S. "Tyrconnel," destroyer depot ship.

ADMIRAL PRESENTS WINGS TO HIS SON

One of the twenty-one Naval Air Squadrons, British-arranged for the Royal Navy's new streamlined type designed to operate at high underwater speeds, was visited by Lord Reid Young, the chairman of the Manned Aircraft Corporation, which is building the vessel by the Royal Navy. The vessel is fitted with a beam of 15 feet 8 inches, and has a keel of 126 feet. It is being supplied with the latest submarine escape breathing apparatus for use by the company's officers in the event of an emergency.

AUSTRALIA'S "MAINE" RECEIVES AWARD FOR OPERATIONS IN THE ARCTIC

The H.M. Hospital Ship "Maine," R.N., which served as a hospital ship in the Battle of the Coral Sea, recently, has been awarded the "Maine" for its services during the war. The award was presented to the ship's company by the Australian Government. The ship was named the "Maine" by the British Admiralty in 1945, and was one of the twenty-one Naval Air Squadrons, British-arranged for the Royal Navy's new streamlined type designed to operate at high underwater speeds.

NEW STREAMLINED SUBMARINE LAUNCHED FOR R.N.

H.M. S. "Clyde," the Royal Navy's new streamlined submarine, was launched on May 13. The submarine is designed to operate at high underwater speeds, and is fitted with the latest submarine escape breathing apparatus for use by the company's officers in the event of an emergency. It is the first submarine to be launched for the Royal Navy since the completion of the "A" class submarine in 1948.

H.M. HOSPITAL SHIP "MAINE" TO BE SOLD

H.M. Hospital ship "Maine," R.N., which served as a hospital ship in the Battle of the Coral Sea, recently, has been awarded the "Maine" for its services during the war. The award was presented to the ship's company by the Australian Government. The ship was named the "Maine" by the British Admiralty in 1945, and was one of the twenty-one Naval Air Squadrons, British-arranged for the Royal Navy's new streamlined type designed to operate at high underwater speeds.

ADMIRAL HALSEY PAYS HOMAGE TO TOASTERS

When in Brisbane recently, Admiral William Halsey, U.S. Fleet Admiral, paid a high tribute to the men of the U.S. Navy who had served in the South Pacific. Admiral Halsey said that the U.S. Navy had been converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine." The admiral paid a tribute to the men who had served in the war and was converted into a hospital ship in 1943, and was renamed "Empire Clyde. She was named the "Maine.�
of many Dutchmen and their families to settle here in recent years and become Australian citizens.

**BRITISH FIRST LORD STRESSES IMPORTANCE OF MINEWATCHING SERVICE**

The importance of dealing speedily with mines dropped in rivers and estuaries, especially should land communications be dislocated by an atomic bomb, was stressed by the First Lord of the British Admiralty (Right Hon. J. P. L. Thomas, M.P.), when he opened a Minewatching Exhibition at Charing Cross, London, on March 22. “Here is an opportunity for all those with a love of the sea and for Naval affairs to share in work of vital national importance,” said the First Lord.

**NEW BRITISH INVENTION TO AID FASTER AIRCRAFT TO LAND ON CARRIERS**

This new British invention, which is intended to help the Royal Navy operate the faster aircraft of the future from the flight decks of aircraft carriers, was recently announced by the British Admiralty.

This new deck-landing aid, a signalling system incorporating lights, mirrors and a gyro-mechanism, will, subject to the success of further trials, ultimately supersede the familiar flight deck figure, the “batman.”

The aid consists of a large curved mirror which the pilot watches as he approaches the carrier from astern. A blob of light is projected into this mirror from a group of lights in the after part of the carrier, and, if the pilot keeps this blob in line with a row of lights on either side of the mirror, he can ensure landing at the appropriate angle to the deck. The device can be used both in aircraft carriers and on airfields.

When used in carriers it is necessary to arrange for the mirror to remain at a constant angle regardless of the motion of the ship, and this is achieved by a gyro-mechanism perfected by naval gunnery experts. Since the pilot cannot take his eyes from the mirror sight in the aircraft carrier, he cannot look at his instruments to check the speed of approach. To overcome this difficulty a special panel is arranged on the windscreens of the aircraft. In it is reflected a red, yellow or green light, which tells the pilot whether he is flying too fast, too slow, or at the correct speed.

In a series of trials during the past 18 months, in H.M.S. “Lustrious” and H.M.S. “Indomitable,” the practicality of the new aid has been proved by some hundreds of landings both during the day, and at night. The new aid, invented by Commander (Engineering) H. C. N. Goodhart, R.N., has been developed for the British Admiralty by the Ministry of Supply.

**ROYAL NAVY'S FIRST ANTI-SUBMARINE HELICOPTER SQUADRON**

Helicopters of the Royal Navy's first anti-submarine helicopter squadron, Squadron No. 845, went into operation service recently.

The squadron is equipped with Sikorsky helicopters (S.55's), selected from those in service with the Royal Navy in Malay; and are known in the Royal Navy as Whirlwinds.

The squadron was formed about eight months ago and has been based at Gosport and in Northern Ireland, where pilots have undergone extensive training.

As a front is opened it is expected to move to the Mediterranean early this English summer and will be based at the Royal Naval Air Station, Hal Far, Malta.

As anti-submarine aircraft, these helicopters are to be fitted with a “dipping asdic.”

The First Lord of the British Admiralty, speaking in the House of Commons, said: There are great possibilities in the use of helicopters in anti-submarine warfare. Their ability to hover with a locating device suspended in the sea promises us a great improvement in the accuracy with which a submerged submarine can be fixed.

**R.A.N. DETACHMENT TAKES PART IN MARCH PAST AT HOLLANDIA**

A detachment of officers and ratings from the Royal Australian Navy Battle class destroyer “Anzac” took part in a march past of members of the Dutch and American forces in the South West Pacific. American, Australian and Dutch forces were employed in it and were assisted by Royal aircraft and naval bombardments. The Japanese-held airfields were so severely damaged that not one aircraft helped in the defence. Hollandia was taken by the Allies the day after the landing.

Mr. McMahon explained that the “Anzac,” which would visit Hollandia after she, in company with the aircraft carrier “Vengeance,” wearing the flag of the Flag Officer Commanding the Australian Fleet (Rear Admiral R.T. Dowing, C.B.E., D.S.O.), and the Tribal Class destroyer “Bataan” had turned the Royal Lancer “Gothic” over to ships of the East Indies Station near Cocos Island on April 5th. The three R.A.N. ships reached Darwin on April 12th.

The “Anzac” left there on April 14th on a visit to Hollandia, Manus, Lae, Samarai and Gurners and arrived at Sydney on May 7. Leaving Darwin a day before her, the “Vengeance” and the “Bataan” visited Manus, Rabaul, Hollandia (Guadalcanal) and Jervis Bay, and reached Sydney also on May 7.

**THE LAST OF THE R.N.'S "DARING" SHIPS JOINS FLEET**

The last of the Royal Navy's eight “Daring” Class, ships, H.M.S. “Diana,” was accepted into Her Majesty's Service in March.

The “Diana” was launched on May 8th, 1932, at the Scotstoun Yard of Messrs Yarrow & Company, Ltd., who are responsible for her main machinery in addition to her hull.

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**THE NAVY**

July, 1954
AIRCRAFT-CARRIER H.M.A.S. SYDNEY ENTERS CAPTAIN COOK DOCK TO UNDERGO REFIT

The frigate H.M.A.S. Shoalhaven—first Australian warship to go into active service in the war in Korea—left Sydney on July 8 for another tour of duty in Korean waters. The picture shows Petty Officer D. Bovill, of Rydalmere, spending his last few minutes before sailing with his son, Anthony. The Shoalhaven will be away nine months.

R.A.N. OFFICER TO SERVE IN KOREA FOR THIRD TIME.

An officer of the Royal Australian Navy who has already served two tours of duty in the Korean operational area will return there on a third tour in September.

He is Commander I. H. McDonald, R.A.N., at present captain of the Battle class destroyer “Tobruk”, who has been appointed captain of her sister-ship the “Anzac”. In Korea the “Anzac” will relieve the Tribal class destroyer “Arunta”.

Commander McDonald served his first tour duty in Korean waters as captain of the frigate “Shoalhaven” which, with the Tribal class destroyer “Bataan”, was on occupation duty in Japan when war broke out in Korea in June, 1950. The Australian Government immediately placed both ships at the disposal of the United Nations. Commander McDonald returned to Australia in the “Shoalhaven” three months later.

As captain of the “Tobruk” he served his second tour of duty in Korea from July, 1953, until January of this year.

Apart from his service in Korea, Commander McDonald had considerable service in the Second World War. He served with the Royal Navy in the “Royal Sovereign,” the “Malaya” and the “Queen Elizabeth” and was present at operations in the eastern Mediterranean, bombardments of Bardia and Tripoli and the Battle of Matapan. He was in the “Barham” when she was torpedoed and sunk in November 1941.

A son of Mr. and Mrs. J. H. H. McDonald of Adelaide, Commander McDonald is a graduate of the Royal Australian Naval College which he entered in 1929.

On passing out of the College he won the Grand Aggregate Prize and the Otto Albert Prize for seamanship and was awarded the King’s Medal as the cadet midshipman who, during his period of training, had exhibited the most gentlemanly bearing and good influence among his fellow-cadets.
It was decided to close the "Victory" about a week and during this time she was scaled up in an attempt to reduce the ravages of the death-watch beetle, which has been making great inroads into her timbers for many years. In the meantime, the damaged parts of the ship have been treated with an insecticide.

In an attempt to find a permanent cure, certain technical and scientific advisors met last year to consider what additional steps might be taken. It was suggested by Dr. H. R. G. Hay, a London radiologist, that the use of radiography might exterminate the beetle. Since that time scientific enquiries have been made into the practicability of the radiation treatment and also into alternative methods of attacking the beetle. The specialists concerned met recently at the Forest Products Research Laboratory, and the following statement has been issued on their deliberations:

"Consideration was given to possible sources of radiation and methods of application. It was concluded that radiation treatments of the timbers of H.M.S. "Victory" were impracticable and do not merit further consideration as a means of dealing with the specific instance of intensive infestation by the death-watch beetle for the following reasons: (a) the magnitude of the dosage required, (b) the difficulties of application, and (c) the danger to human beings, for whom lethal dosages are of the order of one-hundredth of those required for insects."

The specialists were present at this meeting:

Dr. H. J. Prennérle, Ph.D., F.R.S.E., F.S.A.; Mr. H. Barker, B.Sc. (Research Laboratory British Museum).


Mr. J. L. Putman, B.A. (Isotope Division, Atomic Research Establishment, Harwell).

Mr. J. D. Blytheley, B.A., B.Sc., H.E.R., F.Inst. P., F.R.S. (Forest Products Research Laboratory). Dr. R. C. Fisher, Ph.D., M.Inst. B. Eng. (Isotope Division, Atomic Research Establishment). The fumigation of the ship as an alternative method of treatment has now been sanctioned by the British Admiralty. Medyl borotriazid was used in this treatment, and the Forest Products Research Laboratory and Pest Infestation Laboratory co-operated with the Naval authorities and a commercial fumigation firm carried out the treatment.

The following statement will be awaited with interest:

"Laws are not masters but servants, and he rules them who obey them."

LEAKING TANKER SENT TO SEA

The N.S.W. Maritime Services Board late in the afternoon of May 13 ordered the British tanker "Stanvac Shanghai," carrying a petroleum leak in the side of the ship, to be sent to sea. The tanker cleared Sydney Heads at about 9 p.m. to break up the leak, headed for Brisbane, carrying four million gallons of petroleum products. It is understood that the tanker was sent to sea merely as a precaution. Earlier in the day, when the tanker was unloading at the Atlantic Union's wharf at Balmain, firemen had broken up an oil slick which formed around the "Stanvac Shanghai." The leak was found to have its origin in a crack which leaked into the harbour. Board officials said later there was no danger to shipping as the slick had been broken up by fireboats and fireships from the ship.

LANDSLIDE THREATENS PANAMA CANAL

A New York report on May 20 said that a special board of engineers, after two days' discussion at Balboa in the Panama Canal Zone, reported on May 19 that a cracked hillside threatens to topple into the Panama Canal. The board, composed of America's top-ranking geologists, engineers, and technicians, said "immediate steps" are necessary to avert the danger of a rock slide which might block the Canal for some time. Some of the consultants said they completely agreed with the decision of the Panama Canal Company to remove all of Contractor's Hill, which is a widening crack near the top threats to fail into the Canal a rock ledge overhangs the waterway along Gaillard Cut.

AUSTRALIAN ANTARCTIC EXPEDITION CORRECTS CHARTS

It was announced in Canberra on May 16 that observations made by the recent Australian Antarctic Expedition will lead to major alterations on magnetic data on navigational charts of the Southern Indian Ocean. These are some of the results of the expedition last summer. The expedition has made accurate magnetic observations at many places the permission of the Australian government has established on the Antarctic mainland, and at another coastal point about 400 miles east. The data were collected by Sir Douglas Mawson in 1912, and represent the only exact magnetic information for the Indian Ocean sector of Antarctica.

JAPANESE LEAFLETS DROPPED OVER NEW GUINEA JUNGLES

The Japanese ship "Yukinawa Maru" (4,502 tons) left Kobe on April 13 for New Guinea with 100,000 Japanese "Peace Surr
der" leaflets. A plane has since dropped the leaflets over the jungles of New Guinea where it is believed a Japanese soldier, Zuyu Kanno, is still in hiding. Kanno's parents, who live in Kobe, were told that their son had been reported killed in action in New Guinea. The couple, however, believe that their son is still alive and in hiding, and are hoping that in this way they will establish contact with him and thus induce him to surrender.

ORIENT LINE'S SECOND TRANS-PACIFIC VOYAGE

A huge crowd, estimated at eight thousand, lined the wharf at Pyrmont, Sydney, to give the Orient Line's newest ocean liner "Orontes" a rousing welcome in Sydney on May 24. They are said to have found more than 14,000 American cigarettes in a coffer dam under the ship's dining-room. A search of the ship in Brisbane a few days earlier had been unsuccessful.

BIG HAUL OF STRANDBOUND CIGARETTES ON SHIP

Customs officials are reported to have made one of the biggest cigarrette hauls in years when they seized all of the "Eastern Star" in Sydney on May 24. They are said to have found more than 14,000 American cigarettes in a coffer dam under the ship's dining-room. A search of the ship in Brisbane a few days earlier had been unsuccessful. So many were on the "Orontes" to see the passengers off that the ship's departure, scheduled for 4 p.m., was delayed 15 minutes to give the crowd time to go ashore. The "Orontes" left Sydney with 1,200 passengers on board. We were told from Auckland every one of her 1,330 berths was filled.

MASTER OF THE "STANVAC" SHANGHAI" FINED

The master of the tanker "Stanvac Shanghai," Captain Mathew William Earl, was fined the maximum penalty of $400 in the Central Summons Court at Sydney on May 21 on a charge of having allowed a petroleum leak in the side of the ship's hull to escape into the waters of Sydney Harbour. (See further item in another column). The case arose from the leak which brought the NSW Maritime Services Board, said the "Stanvac Shanghai" was discharging motor gasoline at the Atlantic Union's wharf at Balmain, on May 12. The pipe lines had to be cleared for a changeover to another type of oil. Atlantic employees noticed a considerable quantity of oil on the water beside the tanker. They informed the ship's engineer, and escape of oil was stopped. Floats in the Maritime Services terminal were brought into action, but it took two hours to break up and dispose the escaping petrol. Mr. Craven said he had told him afterwards he believed the oil had escaped through the ship's sea valve during the changeover.

U.S. VACATES ICE FLOE WEATHER BASE IN ARCTIC

A report from New York on May 24 said that the U.S. Air Force has moved its weather men off Fletcher's Island, the drifting ice island used as a weather station in the Arctic Ocean. A party of nine men were the maximum penalty of $400 in the Central Summons Court at Sydney on May 21 on a charge of having allowed a petroleum leak in the side of the ship's hull to escape into the waters of Sydney Harbour. (See further item in another column). The case arose from the leak which brought the NSW Maritime Services Board, said the "Stanvac Shanghai" was discharging motor gasoline at the Atlantic Union's wharf at Balmain, on May 12. The pipe lines had to be cleared for a changeover to another type of oil. Atlantic employees noticed a considerable quantity of oil on the water beside the tanker. They informed the ship's engineer, and escape of oil was stopped. Floats in the Maritime Services terminal were brought into action, but it took two hours to break up and dispose the escaping petrol. Mr. Craven said he had told him afterwards he believed the oil had escaped through the ship's sea valve during the changeover.
Preparations are in hand now for the annual inspection by Capt. R. M. McKeown and Commandant James, who will be here in July to check up on the units, to see that they are keeping up to the mark as required by the Directors of Naval Reserves, and in accordance with.

Unit News

T.S. 'Sydney'—T.S. 'Sydney' parades is one of the best, if not the best, depots in the Commonwealth and judging by the cadets, all the units have been prepared to the higher rate.

It is satisfying to know that all cases where cadets have been sent to Naval ships or establishments, the Chief Gunnery Instructor of H.M.A.S. 'Australia,' who put them through their paces on the Flight Deck, and the rehearsal Saturday afternoon put the finishing touches to the ceremonial drill.

The service was conducted by the Rev. Wilson, who directed a very impressive 'Colour' Party. He spoke of preparing themselves for the life ahead of them, impressing the importance of setting a good 'course' and sticking to it. The lesson, read by Rear Admiral Shorts, was a discussion of good and sound advice which every cadet should try to follow; keep base thoughts, jealousies, squalor, and hatred out of their lives. By doing this cadets will find comradeship and happiness in their association with the Corps and be proud to be known as a Sea Cadet.

During the Service, the Sea Cadets Corps 'Colour' was presented to the Port Chaplain from the Executive Officer (N.S.W. Division) and temporarily laid up.

On completion of the service the parade re-assembled and marched to the Dockyard gates where they were dismissed. The Cadets, returning to H.M.A.S. 'Vengeance' to complete the week's training, were in excellent form.

Week-end Training Camps

In H.M.A. Ships

Week-end camps for cadet 'boys' are planned for December, but Cadet Petty Officers and Petty Officer instructors have been held on two occasions November 1953 and April 1954. The recent camp was arranged for the purpose of giving the above rates strict disciplinary training, and a report on the result of this training by the Commanding Officer H.M.A.S. 'Albatross' has given an idea just how necessary are such courses and examinations. It is intended that all Petty Officers and Leading Seamen, whether they pass in professional subjects or not, attend the course, either in H.M.A.S. 'Albatross' or other available R.A.N. establishments before being advanced to the higher rate.

The keenness of the cadets was evident in the effort they put into the marching and drill. Each cadet appeared proud to be in the march and belong to the Corps and be a member of the Chief Gunnery Instructor of H.M.A.S. 'Australia,' who put them through their paces on the Flight Deck, and the rehearsal Saturday afternoon put the finishing touches to the ceremonial drill.

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Cadets of the Hobart Sea Cadet Unit T.S. "Derwent" were busily engaged in preparing two Montague Whalers, a fourteen-foot skiff and the G.P.V. "Huon," at the R.A.N. Naval Depot, HMAS. "Huon" for the ten-mile trip down river to Fort Direction, situated at the mouth of the River Derwent. It was the day planned for an assault landing against the Air Training Corps holding their annual Camp "Huon" at the R.A.N. Naval G.P.V. to be towed in a line ten-mile trip down river to Fort for steerage purposes. This operation was being secured astern of the "Huon," Mr. Muir, Senior Commander to the GPV. The four aircraft were to drop their "bombs" on the defenders astern with two Cadets in each. This was to be the second training manoeuvre with the Air Training Corps, the first being in May, 1953.

The two whalers and the skiff were being secured astern of the G.P.V. to be towed in a line with the Cadet vessel from the R.A.N. Naval Depot. It was then called down to take part in the assault. The plan of assault was simple. The two whalers were loaded with Cadets and towed on either quarter. At a given order the boats were cast off, one heading directly for the beach, whilst the other vessel veered forty-five degrees to port to split up the defending forces. It had been assumed that the defending forces would expect us to land a party around the point before approaching the beach, as was done the previous year, thus effecting a complete surprise. By the hurried movements ashore in an attempt to re-group before the occupation was complete, the desired effect had been accomplished.

Once away from the GPV, the two whalers, with their crews doubled up, claimed the attention of the aircraft, who dived on the "Derwent" to drop the "bombs." Many near-misses were perceived as the "bombs" struck the water sending up a cloud of spray. The aircraft, having exhausted their supply of "bombs," circled the area, formed up, and proceeded back to the airport. By this time the 'fighting' had ceased giving this very desirable win to the Air Training Corps, and the invaders, although heavily outnumbered, were quite content with the fine effort they had made. One whaler was recalled to take off the remainder of the party from the GPV. Ashore, the Officers of the Unit were met by the Officers of the Camp and escorted to lunch, whilst the Cadets were taken up to the main dining hall by the Air Cadets.

After lunch a great number of the Air Cadets were ferried out to the GPV for a visit before leaving for home. Instead of proceeding back to base slowly using available time in training, they were ferried back to Port Phillip Sea Pilots. Length 138.8 ft., beam 20.2 ft., depth 11.8 ft., new deck 10 ft. Registered, Melbourne. Flag, British. 4 Bulkheads cemented. Triple expansion, 3 cylinders, 12 in., 16 in., and 30 in., 21 in. stroke. 160 lb. boiler pressure. 16 Reg. H.P.

One boiler, two corrugated furnaces, grate surface 42 sq. ft. made by Oswald, Mordaunt and Co., South Hampton. Owners: Port Phillip Sea Pilots. History. From newspaper cuttings and verbal reports, some idea of the previous activities of this ship can be obtained: but it must be pointed out that many of the details are unconfirmed. This may be done by reference to Registers and Records which, unfortunately, are not available in Launceston. The only Ship's Papers available are those endorsed since 1930. As seen above, the ship was built in 1877 by Oswald, Mordaunt and Co., South Hampton, and engaged by the same firm. It has been said she was built for a cotton magnate as a private yacht, but very soon after she seems to have been made available for private charter, and was used by many well-known identities, in particular, the Prince of Wales. After a period of such use, she was brought out to Australia, being registered at Melbourne since 1903.
PERSONAL PARAGRAPHS

VICE-ADMIRAL SIR JOHN COLLINS ATTENDS CONFERENCE AT THE ROYAL NAVAL COLLEGE

The First Naval Member of the Australian Commonwealth Naval Board and Chief of the Naval Staff, Admiral Sir John Collins, K.B.E., C.B., D.S.O., arrived in Sydney by air on Tuesday, March 30, to attend a naval tactical conference at the Royal Naval College, Greenwich. He arrived in Sydney on Thursday, April 11. The Minister for the Navy (the Hon. William McMahon, O.B.E., C.B., C.B.E., D.C.O.) was present at the conference, to which he would also be able to attend in informal talks with the various senior officers of the Royal Navy in the United Kingdom and Commander-in-Chief from abroad. These latter would probably include the Commander-in-Chief Eastern Fleet (Vice-Admiral Sir John T. T. C. Rodger), Admiral of the Fleet Sir Roderick McGrigor, G.C.B., D.C.O., and Commander-in-Chief South Atlantic, Admiral Sir R. McC. Rigor.

NEW FIFTH SEA LORD, BRITISH ADMIRALTIES

The British Admiralty has announced the appointment of Rear-Admiral M. L. Porter, O.B.E., D.S.O., as Senior Member of the Directoring Staff of the Imperial Defence College, in succession to Vice-Admiral Sir Edmund W. Anstice, K.C.B., the appointment taking effect this month (June, 1954).

NEW SENIOR NAVAL MEMBERS, IMPERIAL DEFENCE COLLEGE

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NEW NAVY HOUSE

The appointment of Vice-Admiral Sir M. R. Campbell, C.B., D.S.O., and Bar, as Commander-in-Chief, East Indies, has been announced by the British Admiralty. He succeeds Vice-Admiral Sir Pocock R. G. W. E. W. B. F. D. and B. C. Smith, K.C.B., D.S.O., the appointment taking effect in August, 1954.

O.B.E. AWARDED TO O.C. OF H.M.S. "COMUS"

Among awards announced in a recent British Admiralty "Circum" was that of an O.B.E. (Military Division) to Commander Wilfred J. Parker, D.S.C., R.N., of Southampton, England, for services as Commanding Officer of H.M.S. "Comus" and as Acting Chief Staff Officer to the Flag Officer Second-in-Command of a Fleet, in the Persian Gulf, and V.P.T. BOAT DESIGNER DIES.

New York on April 15 reported the death of Mr. Hubert Scott-Paine, the English-born boat and aircraft designer who designed the P.T. (patrol torpedo) boat. Mr. Scott-Paine, who was 62, went to the United States in 1939 and became an American citizen in 1948. He was for many years a speedboat racer, using boats he designed and built himself. He was one of England's leading designers, and during the 1914-19 war designed and built land and marine aircraft.

LLOYD'S SHIP SURVEYOR TO RETIRE

Mr. H. J. H. G. Carpenter, principal surveyor for Australia with the Lloyd's Register, will retire on June 30 this year. Mr. Garnett has served Lloyd's Register since 1928 and has been stationed in London, Southhampton, Kobe (Japan), and Sydney. He was appointed a senior surveyor in October, 1934, and held the position of senior engineer on the London outdoor staff for nine years before his appointment as principal surveyor for Australia in October, 1946. Mr. B. P. Fielder will succeed Mr. Garnett as principal surveyor for Australia. Mr. Fielder, who is 33 years of age, has been with Lloyd's Register since 1930, and has served most of his time in Australia at Melbourne and Sydney. He was appointed a senior surveyor in January, 1946, and in the absence of Mr. Garnett, in 1951, he acted as senior surveyor for Australia.

With a total of rather more than 82,500 men, the personnel of the American merchant marine declined by nine per cent last year.

Japanese shipbuilders are trying to retain their market for tankers for foreign owners by cutting the price to ten dollars per ton less than the British minimum.

The team of experts examining the chances of a simultaneous and substantial increase in Irish exports to the United States reported recently that there are none.

About 150 Government experts from all European countries except Spain, Ireland and Eire attended the opening of secret East-West trade consultations in Geneva on April 10. The United States was represented by Mr. Eaton.

Companies in the Australasian Steamship Owners' Federation had lost £150,000 in the operation of their ships in the first three months of this year, Mr. P. W. Haddy, who is chairman of the Federation, alleged in Melbourne on May 13.

Canada's St. Lawrence Seaway, designed to open the heart of Britain, will be the scene of ocean-going shipping, for the benefit of both Canada and the United States, and which is said to be the biggest engineering job in the world—a project dwarfing anything of its kind in human history—has been opened on April 27.

The distance covered by Canadian Great Lakes vessels stretches from the open Atlantic to Cape North, Nova Scotia, to Duluth, at the head of Lake Superior—is 1,650 miles in a straight line, and must be lifted over Niagara Falls on the way.

Two Hungarian trade delegations arrived in Sydney on May 11 to try to arrange for more two-way trade between their country and Australia. The two delegations were both export managers of Fer Union, a large Government-controlled export company in the Hungarian capital, Budapest.

Waterside workers in all North Queensland ports on May 10 imposed a "radio activity" boycott on all ships using Torres Strait. They laid down that they would decline to work ships arriving via Torres Strait until scientific tests had proven them free of radioactive particles.

Representatives of the Japanese shipbuilding industry and merchant marine expect this year to be "a very bad business year", the Reuters correspondent in Tokyo said on May 15. Japanese pessimism over world shipping and the shipbuilding recession has been confirmed by a report from the Japanese Government that subsidies to the shipbuilding industry would be cut.

The Australian Minister of Labour and National Service, Mr. H. E. Holt, said in the House of Representatives at Canberra on May 13 that the Government proposed a substantial increase in overseas and interstate freight rates as "unduly high".

When the great Canadian St. Lawrence Seaway is finished big American cities like Chicago, Detroit and Milwaukee, as well as some of the growing Canadian industrial centres, will challenge the great Atlantic ports of New York, Philadelphia, and Montreal.

British marine engine builders are being nearly as hard hit as the shipyards by the shortage of steel plate.

It is feared that the new Japanese scheme of letting their exporters use sterling balances for buying in dollar areas will result in their selling goods in the United Kingdom without buying British goods in return.

The last of the River Thames paddle excursion steamers, the 1,339-ton "Royal Eagle", has been put on the sale list.

SPEAKING OF SHIPS

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SEA-ODDITIES

One doesn't expect to read of buried rivers of having existence in thousands of square miles on the paradoys. Yet, according to an authoritative press message from Washington, U.S.A., on May 14, a research ship had just reported the finding of some such river in the Pacific. Scientists say that this explains why ships drift to the East instead of west. Equator it that ocean.

The expedition reported that the river flows eastward at a speed of six miles an hour, in a direction impelled that might move the ocean's surface. Although the undersea river is deeply submerged scientists say it probably rises to the surface in some places. With specially designed apparatus the members of the expedition measured the rate of surface motion westward, in the direction of the rotation of the earth. Then they sank drags 200 feet and attached them to floating objects. In this way they measured the rate at which the current retarded the objects.

The expedition made most of its observations on the Equator at the approximate longitude of 150 degrees West. The area is near Christmas Island, about halfway between Australia and America. The scientists believe a similar river exists in the Atlantic Ocean.

The first Portuguese explorers of the South African coasts were reported by another ship at Port Elizabeth, South Africa, recently by the unveling of a padrao (monument) presented to the city by the Portuguese Government. The Padrao, a marble pillar surrounded by a cross, is a replica of that erected by Bartolomeu Dias, near to his discovery of the Cape of Good Hope in 1486. Magnificent mariners, none the 14th century and 15th century Portuguese. To account for this, the Portuguese had having first navigated the unknown Southern Seas. Year after year the hardships and trepidation of the crew pushed along the West African coastline, until, at last, one of them, none other than the famous Dias, sailed into doubling the Cape. His crews of 50 were succeeded eleven years later by Vasco da Gama's galleons of 125 tons, outward bound on their way to India. Almost a hundred years the Cape route to India remained exclusively in the hands of the Portuguese, who consequently enjoyed the monopoly of the East India trade with Europe. Their fleets yearly left the Tagus (Portugal) on what at that time was the far longest voyage undertaken for trading purposes and by their regular sailings inaugurated the first great ocean of modern history. Although their vessels gradually increased in size and efficiency they seldom appear to have exceeded 300 tons and, owing to their excessive length and great height above the waterline, must have been most difficult to handle in even a moderate sea.

The expedition found the Dutch Republic actively competing for the India trade. Wherever the traders of the two nations met, a sharp shot of cold gave to the stronger the monopoly of the market for the time being. So victorious were the Dutch that, in a few years, the built of the trade was in their hands. The success of the Dutch was in no small way due to the great ease with which their short, straight-sided vessels could be handled. The same defects in naval construction which so largely contributed to the defeat of the Spanish Armadas by England enabled the Dutch to drive their Portuguese rivals from the Cape route. But the Dutch had not long enjoyed this ascendancy, and the British entered the field. Drake, the victor over the Spaniards, had sighted the Cape of Good Hope as early as 1587 and made the first voyage under the English flag. In 1591, and gradually British trade and influence took the ascendancy and became paramount.

One of the most macabre under-water stories this writer has heard—it is told by Sir Robert H. Davis, in his monumental work "Deep Diving and Underwater Operations"—came from an old Royal Naval diver. During the First World War the diver in question was one that had been despatched to a point near Scapa Flow where a German U-boat had been detected and sunk. She was lying in relatively shallow water and the British Admiralty hoped that, not with great difficulty, the German submarine might be found. Either he was lost, or still in the water and had been sunk. The diver arrived on the scene and dived. As he had no light source, he was forced to swim in the dark. After an hour's search he emerged from the water and reported having seen the German U-boat lying on the bottom of the sea. The British Admiralty was surprised and, after the war, the diver was brought before a court of inquiry. He was told that he had been found guilty of the murder of the German submariner and sentenced to death. He was hanged on the following day. The court of inquiry was told that the diver had been under orders to sink the German U-boat if found and had obeyed them without question. The diver himself insisted that he had never intended to kill the submariner but had only wanted to destroy the U-boat. He was executed without further trial.

"The better part of every man's education is that which he gives himself."—J. R. Lowell.

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The Ascent of Everest, by Sir John Hunt, published by Hodder and Stoughton, London, is a long and famous struggle won at last with scientific and artistic completeness by a courageous band of most superlative, most inevitably attractive attention the world over. Thus this book, for all its simple and forthright fiction, brings to the lucky reader a sense not only of personal pride—particularly if he or she be British—but also one exhilaratingly spiritual. In this mood he is able to keep with Sir John and his fellow-climbers in every forward move they make, nearer to their goal. And the further he moves beside them, the greater the essential grandeur of their success becomes clear and epic.

Sir John Hunt’s party, the 1953 British Expedition, appears to have been remarkable for several reasons. Of all the eleven attempts to reach the world’s highest mountain, nine of them British, it was probably the best planned and most homogenous; it was, as one can see as one reads, one of the luckiest in that it had fine weather for the vital fortnight for the final build-up and assault upon the summit, it had no casualties, nor even a frost-bitten toe, it was again fortunate in that a portable oxygen equipment developed just in time. Sir John’s own comment is that the improved oxygen equipment then had was vital to success. Without it, it is hardly conceivable that Hillary and Tenzing could have won through to the summit. Certainly the story of Sir John Hunt’s expedition clinches the theory that the limit of unaided human endurance is reached between 27,000 and 28,000 feet. Certainly, too, nothing was left undone to ensure safety and bring success. Months of planning, based largely on the experience of earlier expeditions, went into Sir John’s expedition, planning so meticulous and elective that even the name tapes were sewn on to each member’s individual garments to obviate one possible source of petty irritation at high altitudes, where even so small a thing might spell disaster, so thin could the margin become between failure and success.

And when once on the mountain, organisation of the thrusts forward and upward, despite many and vast difficulties, left little to be desired. The difficulties encountered are indicated by such names in the book as Mike’s Horror, Hellfire Alley, Hillary’s Horror, Atom Bomb Area, the Nutcracker. Not the least remarkable feat was the establishment at the vital Camp 9, at 27,350 feet, to which Sir John himself and a Sherpa porter carried loads of 45 lbs. and Gregory, Lowe and Hillary loads of between 50 and 60 lbs. (normal load without oxygen, 25 lbs.). Then follows an account of the ascent of the south summit, 28,500 feet, by Bourdillon and Evans direct from the South Col above the huge crevasses of the Cwm and the steep traverse of the Lhotse face—a preliminary climb necessary to the final assault and most gallantly achieved.

Sir John leaves the story of the ascent and successful descent of the summit itself to Sir Edmund Hillary, who, with Tenzing, had the luck of the draw for the final thrust. This is a revealing and moving chapter, and most dramatic. The final words of Hillary’s account show what a happy and cooperative band they were. “To see,” writes Sir Edmund, “the unashamed joy spread over the tired, strained face of our gallant and determined leader was to me rewarding enough in itself.”

Not is that amazing little man, Tenzing, forgotten. Indeed, the Sherpas achievements and the Sherpa temperament receive many generous tributes, especially concerning the work done by these hardy mountain men at high altitudes.

This exciting and informative account of the 1953 British Expedition’s struggle for mastery of the world’s mightiest mountain, makes the “Ascent of Everest” one of the most important and valuable books on British enterprise written in years.

OIL FROM SHIPS PACT.

Forty nations, of which Australia is one, agreed at a conference held in London in mid-March, to introduce measures in which ships will not be allowed to discharge “persistent oils.” Persistent oils include crude oil, fuel oil, heavy diesel oil, and lubricating oil.

The agreement followed a fortnight’s discussions at a conference called to find some way of ending oil pollution of coastal waters.

The conference delegate agreed unanimously to a draft convention which will come into force as a zoning authority when it is signed by 10 Governments, including five which have a tanker tonnage of: more than 50,000 tons. The distance out to sea at which ships can dump their oil ranges, according to currents and other factors, from a minimum of 50 miles.

Round most of the Australian coast there will be a 150 mile zone.

The convention allows a period of three years for the zoning to be brought into full operation. After that, ships will have to carry oil record books giving an account of all operations resulting in the discharge of oil.
NOTED AVIATRIX SEES WORLD HOPE IN ATOM’S PEACEFUL USES.

New York (U.S.I.S.) - The noted aviatrix, Jacqueline Cochran, says peaceful exploitation of atomic energy “can bring about the salvation of the peoples of the world.” Atomic energy, she said, can be used to manufacture chemicals to increase the soil’s productivity, enabling millions of persons in the world to enjoy a higher living standard. The only woman flyer to break the sound barrier, Miss Cochran predicts “within 15 or 20 years we’ll use rocket planes and atomic planes for regular industrial and passenger transport.” She predicted further that atomic energy will permit the use of man-made satellites to aid in weather forecasting, navigational and astronomical research.

UNITED STATES’ HUGE WAR STOCKPILE.

A Press message from New York on May 20 said that the Director of the U.S. Office of Defence Mobilisation, Mr. Arthur Flemming, stated on May 19 that the U.S. Government had stockpiled more than $4,225 million dollars (£289 million) worth of strategic and critical materials. Mr. Flemming told the U.S. Congress that by last January the stockpile had reached 60 per cent. of the Government’s goal. Another 15 per cent. had been ordered.

MEDICAL ADVICE BY RADIO TO SHIPS AT SEA RECOMMENDED.

Recommendations that medical advice by radio be available to ships at sea 24 hours a day have been adopted by a group of experts called together by the International Labour and World Health Organisations. The group also recommended that every ship carry an adequately stocked medical chest and that all new entrants to merchant navies be examined for tuberculosis. The experts, who formed a Committee on Hygiene of Seafarers, found that existing radio facilities for medical advice are satisfactory, but are not always available when needed.

RED CROSS AID FOR GREEK EARTHQUAKE VICTIMS.

More than 30,000 people were reported homeless, when news of the recent earthquake disaster in Northern Greece reached the American Red Cross Societies throughout the world immediately. Cabled financial aid to the stricken towns. In response to an appeal from the League of Red Cross Societies, the Australian Red Cross cabled £300 asking that this be utilised to purchase stores most urgently required for relief measures. Enquiries made to the Red Cross Enquiries Bureau, will be transmitted to the Greek Red Cross by air letter or reply-paid cable at the sender’s expense.

When ships of the Navy “hove to”, this rope holds fast!

ANCHOR BRAND

MEDICAL ADVICE BY RADIO TO SHIPS AT SEA RECOMMENDED.

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The entry of the first capital ship, H.M. Aircraft Carrier “Illustrious” into the Captain Cook Graving Dock on March 2nd, 1945, represented a great and visible achievement made possible only by an even greater but unseen achievement beneath the Dock itself. . . . Many feet below the bed of Sydney Harbour, housed in man-made caverns hewn from the solid rock, are the mighty masses of G.E.C. and B.G.E. electrical equipment. . . . These include three main G.E.C. electric motors of 1,200 h.p. each, and over 100 smaller motors; 45 route miles of Pirelli-General cable; ten E.P.M. transformers, and other large-scale electrical equipment which plays a vital part in the smooth running of this great enterprise.
ABOUT ALUMINIUM No 1

In 1886, the electrolysis method of producing aluminium was discovered and this, basically, is the method used today. Bauxite ore is first treated to produce pure alumina: this oxide is dissolved in molten cryolite and a heavy electric current is passed through the solution from carbon anodes to the carbon lining of the bath. The oxygen combines with the anodes to escape as carbon dioxide and metallic aluminium sinks to the bottom, whence it is tapped. Little change takes place in the cryolite: the carbon anodes are consumed and have to be regularly replaced.

Four pounds of high-grade bauxite are needed to produce two of alumina, which will yield one pound of aluminium of over 99% purity. Roughly 10 KWh of electricity are consumed for each pound of metal obtained: this makes cheap and plentiful power essential, and the world's main reduction plants are sited on specially built hydro-electric schemes.

Rolling aluminium sheet is not basically different from that of most other metals: a prepared cast ingot is reduced in gauge by passing between hardened steel rolls. It is first rolled hot but final reductions are made cold to obtain a good finish and perhaps, by work-hardening, a desired degree of hardness. The production of accurately-gauged, flawless sheet and strip demands very precise and elaborate equipment and much experience.

Equal in importance is the extrusion process by which lengths of metal of constant cross-section, solid or hollow, are made. Very high pressures are used to force hot plastic aluminium out of a container through a steel die of the required shape.
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Canada. It has been loudly hinted that he will return to Australia for the Olympic Games in 1956.

The triumphal round-the-world tour of the Queen and the Duke of Edinburgh combines with certain significant Royal travels to emphasise a very important aspect of the changing relationships in our British family of nations. Royalty has become a much more personal and intimate affair in the greatest aggregation of peoples, creeds and cultures in history. The Queen is Head of a Commonwealth of which the total population is 613,540,000, and she is the only concrete symbol of unity among them. Gone are the times when the Sovereign and his or her family are remote figures in a little island in the North Sea. They mean something to us in our personal lives. We want to see them and meet them, and so do the peoples of other parts of the Commonwealth. And, thanks to modern transport and communication, we can do so, and, to our infinite joy, have done so.

The Queen Mother, of course, was in Australia in 1927. A few months ago she and Princess Margaret went to Central Africa. Late this year they will visit Canada. Not long after his world tour with Queen Elizabeth, the Duke of Edinburgh will be off to the Empire Games in Vancouver.

History is being made so swiftly in that part of Asia that is nearest our shores that many of us in Australia do not realise that the future of our own country and that of generations to come and the British policy is enunciated by both Mr. Churchill and Mr. Attlee. It is not inevitable. They realise that, if mankind is to survive, we must have peace, not war.

The home and family are the units on which much that is all-important to us is based. A few thoughts on an occasion as the Queen's return home and family after a round-the-world journey, the first to have been undertaken by a reigning British Sovereign, come to mind.

The Queen and the Home.

Our destiny lies in our relations with Asia and Australia lies in the fact that we cannot deceive ourselves with comforting thoughts that "the Americans will come to our help if we are attacked" or "the next war will be so-and-so." Not, surely, in such a case, do we want it so. Too many of us are liable to shrug off the situation by thinking that, if mankind is to survive, we must have peace, not war.

History ranging from A. to H. It is possible that there will be a testing time that will have a fact that most criminals come from broken or unhappy homes. Children tend to follow the example set by their parents, and what is taught them during their formative years usually guides them when they are old enough to strike out for themselves.

An accumulation of families constitutes a community, and in our form of democracy the government decides what the government will be. The government in turn steers the affairs of the nation. But this structure of social relationships all goes back to the foundation of the family.

In our Royal Family we have an excellent exemplar of family life. All of us should endeavour to follow the example.

OIL POLLUTION OF THE SEA.

A note in a recent issue of the "Merchant Navy Journal" under the above heading has aroused considerable interest amongst seafarers, those serving with the tanker fleets in particular.

It is clearly recognised that this is a problem that needs early solution.

There seems to be unanimity of opinion that more facilities should be available in the world's ports for tank cleaning and the discharge of sludge.

Mr. Alfred Wilson, C.B.E., general secretary of the Mercantile Marine Service Association, a gentleman with a fine approach to seafaring problems, is in no two minds on this matter. It is also apparent that ships wearing the British flag, that the public conscience has been aroused, that the report of the Committee appointed by the British Ministry of Transport has focused attention on what is a real evil.

The National Institute of Oceanography (of the U.K.) has decided on an intensive research into the surface currents of the North Atlantic to the West of the British Isles. It is hoped that this research will make an important contribution to the efforts being made against the pollution of harbours and beaches by oil.

It is planned (and, it is understood, the work is already in hand) to drop into the sea 10,000,000 flasks each of which will eventually float ashore on the coasts of Britain and other North-West European countries. Each envelope contains a framed addressed postcard, on which is printed a simple questionnaire, a small sheet
The Orient Line

By John May

Mr. May here presents in clear but compressed form one of the most absorbing maritime stories of the world—the story of a great shipping enterprise, under whose flag voyages have been made to Australia since the days of the windjammer.

For more than seventy-five years the Orient Line as we know it to-day has been a force in the world of shipping. Though one of the smaller merchant fleets, it has always striven to make improvements and to be a leader in its field. Many of the Line's vessels have broken speed records, many have incorporated innovations in design. And, finally, she is completely masterless—the first masterless liner of her size, an ultimate break with the most stable of the old traditions of sail.

The Orient Line fleet—the "Orsova," of 29,000 tons, the "Oronsay" and "Orcades," of 28,000 tons, the "Orion," of 24,000 tons—steam not only on the Australian run. This was the first company to start the "modern" idea of cruises—to the Mediterranean and, one at a time, the Meditterranean and to one of the South American waters. As well, at certain times of the year, the extension of the service across the Pacific to Canada and the United States opens up round-the-world possibilities. By first crossing the Atlantic and then North America to connecting services, one may embark on an Orient liner at Vancouver or San Francisco, cruise the 2,000-odd miles to Honolulu, then voyage onwards 2,783 miles to Suva, 1,140 to Auckland, 1,274 to Sydney, and then the 12,531 miles to London.

This way, or in the reverse direction, most of the run is through the tropics, for which the Orient ships are built.

The fleet's origins are in roots that stretch away into the past in strange, romantic directions. The first Orient Line of clippers in the 1850's sprang from the time when a certain Alexander Anderson bought a prize ship as a speculation and gave the firm of James Thomson and Company, which was established in 1797 to carry on the business of shipbrokerage, the option to operate it to the firm of James Anderson and Company, which was established in 1797 to carry on the business of shipowning and shipbroking. In 1828, Alexander Anderson asked his nephew, James Anderson, to enter the firm. This was sealed the association between the Anderson family and the Orient Line, which continues today through Anderson, Green & Company Ltd., who manage the Line.

The outcome of this exploratory run was the orient of 1889—and this year the Orient Line is putting on ten runs. This was the first company to try a joint voyage working the United States and the Orient Line is putting on ten cruises to the Mediterranean, and the Blackwall clippers sailing to India and Australia. The two concerns decided to try a joint experiment. They first chartered one steamship in 1874. Two years later they chartered three. The following year they chartered three others, with an option to purchase.

The first-class Dining Room of the 1954 "Orsova."
The cost of the whole fleet was a single Orient liner to-day, but few hours more than forty days. Fierce financial struggles were sometimes responsible for these changes. It was during the 1914-1918 War that things settled that followed; it shows to-day in the financial link made then was reflected in the capital. The financial link which passengers had to make then to reach Australia was £15 a head for numbers going to Australia for the Naval Reviews at the Royal Review at the Olympic Games that went about these varied duties? Half-a-million tons of the Line's ships were called the last year of the 19th century. This "Orient" was a great ship. She had the straight stem and vertical stern of a clipper ship, with an afterdeck of a square-rigged, well-constructed ship with belfry sails which must have been blacked by the smoke from her boilers. Her promenade deck was something new in those days. She was the first ship to be fitted with electric light, and the first in Australia to have refrigeration—this which we day for granted, but which meant that passengers no longer had to suffer their decks with cattle, and slaughtering could be done ashore.

In the whole thirty years of her life the "Orient" never once broke down. But the "Austral," designed two years later as an improved "Orient," met with the help of a school atlas, from St Nazaire at the Fall of France when her wheelhouse, chartroom, and navigational gear were entirely wrecked by enemy action, was eventually torpedoed off the West Coast of Africa. The "Orcades" (24,000 tons) was sunk in the next day in the South Atlantic, after successfully evacuating civilians and forces from Singapore and Java. And the "Orford," burned out in Marseilles Harbour after air attack, her crew escaping across France back to England. Most important of the Orient Line ships that survived the war was the "Orion." This ship had set a fashion for the line, emerging in 1935 from the Vickers-Armstrong shipyard at Barrow-in-Furness with one funnel, one mast, and her hull painted with a color which is to two funnels, two masts and the black hull of her predecessors. The managers of the Orient Line believe that it has been the "Orion," particularly those who journeyed in tropical waters, appreciated clean lines, simple materials, and in shape of new vessels, and that the "Orion" is a century after the "Orion." She was laid down in 1913, and stayed in service until 1935, linking in two wars. The "Ormonde" first became a cruiser in 1914, was converted to a troopship in 1919, and twenty years later again was carrying troops in almost all the major evacuations and landings of North Africa, Sicily and Salerno. She finished her service as a migrant carrier to Australia, and made her seventy-fifth voyage two years ago, having steamed over 2,000,000 miles and carried some 350,000 passengers.

Hitler's War brought more adventures to Orient Line vessels by now mostly ships of around 20,000 tons. The "Oromax," built in 1920, was assigned to the evacuation of Norway. The "Orosmar," built in 1921, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1922. The "Orosum," built in 1923, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1924. The "Oroson," built in 1924, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1925. The "Oroson," built in 1925, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1926. The "Oroson," built in 1926, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1927. The "Oroson," built in 1927, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1928. The "Oroson," built in 1928, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1929. The "Oroson," built in 1929, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1930. The "Oroson," built in 1930, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1931. The "Oroson," built in 1931, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1932. The "Oroson," built in 1932, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1933. The "Oroson," built in 1933, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1934. The "Oroson," built in 1934, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1935. The "Oroson," built in 1935, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1936. The "Oroson," built in 1936, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1937. The "Oroson," built in 1937, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1938. The "Oroson," built in 1938, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1939. The "Oroson," built in 1939, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1940. The "Oroson," built in 1940, was fitted out to carry cargo and troops, and made her maiden voyage to Australia in 1941.
The Royal Naval Volunteer Reserve was founded 50 years ago, and was reviewed by Her Majesty the Queen on June 5th, 1934.

The Royal Naval Volunteer Reserve—the R.N.V.R.—was officially founded in 1903, but it really started 30 years before that—and, of course, there were always volunteers in Britain's armed forces; they served with Drake and the other Elizabethans, and the earlier volunteers were often paid for their service or received a bounty, and many who called with Drake did so to make their fortunes.

In 1873 the Royal Naval Artillery Volunteers, as they were called, gave their services for nothing; they bought their own uniforms, paid their own expenses, and even paid for their own food when on board H.M. ships. They were stockbrokers, lawyers, businessmen, licensed victuallers, and clerks; there was even a whole music school from Bristol, including a Doctor of Music. They were gentlemen trying to be sailors, and the Navy rather looked on all of them as comedians. Officially they were described as "efficient men" or "non-efficient men," but never as seamen.

Eager To Serve.

In 1891 they were disbanded, so they set up a private navy of their own. They bought old service boats and yachts, manned them with ex-volunteers, and ran them on naval lines. At the turn of the century, the Navy was overhauled in ships and personnel—Germany was looming up as a menace, and if there were a war it would be fought at sea—and so in 1903 the Artillery Volunteers were reconstituted under the title of the Royal Naval Volunteer Reserve. The Stock Exchange Stockbrokers formed a company, and it solemnly marched to the nearest harbors to shave off the moustaches its members had grown in the preceding few years.

The Royal Naval Volunteer Supplementary Reserve was formed; the response was immediate, and once more men shaved off their peace-time moustaches.

With new threats of war, the pattern was repeated; the Royal Naval Volunteer Supplementary Reserve was formed; the response was immediate, and once more men shaved off their peace-time moustaches.

When the Second World War broke out the R.N.V.R. was used immediately: its strength was 8,000 officers and men, all of whom went to H.M. ships or shore establishments, and the permanent R.N.V.R. closed its recruitment for the duration. For the next five and a half years the volunteers became the Navy. Almost every officer or rating saw some form of action, and the anti-submarine and mine-sweeping fleets were in the main officered and manned by the R.N.V.R. and the Royal Naval Reserve. The Sussex Division at Hove became H.M.S. "King Alfred," where nearby all temporary officers received their training.

Corvettes, frigates, sloops, and torpedo craft came steadily from the shipyards to be officered by the "King Alfred's" trainees and crewed by "hostilities-only" ratings. There were the coastal forces, the "combined operations navy," the Fleet Air Arm, not to mention the ever-increasing supply of R.N.V.R.'s to the larger ships of the Fleet. As time went on, destroyers— even submarines—fell to the command of V.R. officers, and the "brass hats" of R.N.V.R. commanders gleamed in the sunshine in many parts of the world.

The Reserve served in the Arctic, on Russian and Mediterranean convoys, and in the Far East. Some of their ships visited American ports and others navigated the Central Arctic. Whatever their lot, they had always wanted to be sailors but had never before had the time or opportunity.

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REFIT FOR DESTROYER AT GARDEN ISLAND

THE NAVY

Details were recently given by the British Admiralty of two light carriers of the “Hermes” class which will be coming into operational service with the Royal Navy this year. They are:—

H.M.S. “Centaur” (Captain H. P. Sears, R.N.), completed at the Belfast yard of Messrs. Harland & Wolff Ltd., modified to incorporate angled deck arrangements at the Royal Dockyard, Portsmouth, and now doing her final trials with the Royal Navy; and

H.M.S. “Albion,” nearing completion at the WallSEND-on-Tyne yard of Messrs. Swan Hunter and Wigham Richardson Ltd., and accepted into Her Majesty’s Service recently.

The main machinery of H.M.S. “Centaur” is by Harland & Wolff Ltd., while the main machinery of H.M.S. “Albion” is by the WallSEND Shipway and Engineering Co. Ltd. Gearless steam turbines are employed. Both ships have an extreme length of 737ft. (650ft. between perpendiculars), a beam of 90ft. and extreme breadth of 120ft. 6in. Armament consists of 11 multiple and single-barrelled Bofors guns, and a number of changes have been made in design with a view to improving the comfort of the ships’ companies. The living quarters have been arranged on lines which exist in H.M.S. “Vanguard”—large dining halls close to the galleys, and mess decks equipped with tubular steel furniture. Many of the living compartments are fitted with air-conditioned ventilation so that the temperature can be maintained at a comfortable level in any climate. The catering arrangements are highly mechanised, with cooking mainly by electricity. More space has been allocated to refrigerated storage—intended to ensure a more varied diet—in “cold” and “cool” rooms than was formerly the practice.

The design of the “Hermes” Class was the subject of a long series of model experiments to determine the best shape of the hull for speed, endurance and seaworthiness. Hull strength and rigidity have also been the subject of special investigations. Electric welding has been extensively used. X-Ray testing of welding being now a standard procedure in shipyards, teams of experts with their radiographic equipment have been a familiar sight to the workmen engaged in the construction of these ships.

Bilge and wireless telegraphy sets of an aircraft-carrier are more varied and numerous than in any other type of warship. In the “Hermes” Class, therefore, a great deal of thought and ingenuity has been devoted to finding positions for all the aerials without loss of efficiency and without infringing on the areas which must be kept clear for aircraft.

Electrical Installation.

It is estimated that some 250 miles of cables are installed in both the “Centaur” and the “Albion,” and that the shipbuilders were required to make approximately a quarter of a million electrical connections to complete each installation.

Peak demands for electricity are met by a generating plant which has a total output of 3,200 kilowatts. Each plant consists of eight electrical generators, each of 400 kilowatt capacity. Four of these generators are steam-driven and four diesel-driven, and each generator is capable of sustaining a 10 per cent overload for two hours.

A 220-volt D.C. watertight ring main system is used for the distribution of the electrical energy, and supplies are tapped off this ring at convenient points round the ship through approximately 200 electrically-operated breakers. An emergency supply system is fitted for use in the event of damage.

Distribution of electricity is controlled from a large central switchboard, and four smaller switchboards are provided for use in emergency, from each of which the supplies to a quarter of the ship can be controlled. All switchboards are provided with an elaborate system of indication lights.

There are more than 700 electric motors in each ship. These range in size from large 100 h.p. motors for aircraft lifts down to fractional h.p. motors for a variety of services such as potato-peeling, drinking-water cooling, radio printing, paint mixing, collar ironing, and ice-cream making.

A 500-line automatic telephone exchange is operated from a 50-volt D.C. supply, rectified from a 220-volt, 50-cycle second A.C. source. For vital action communications, sound-powered telephone groups, independent of electrical supplies, serve the various ship departments. An integrated main broadcast system is fitted.

General information, warning signals, etc., are passed over this system in all parts of the ship. In action, the various departments of the ship can take control of appropriate units of the system; the
armament broadcast unit by gunnery personnel, the flight deck and hangar broadcast unit by flying personnel, etc. Under these conditions, only warning signals from the main system can override transmissions on the unit system. Approximately 400 loudspeakers are installed.

The sound reproduction equipment fitted serves some 70 mess spaces, etc. Two large portable cabinet type loudspeakers are provided for use on the flight deck and in the hangar. The system provides for gramophone recitals, ship studio broadcasts and also outside broadcasts, with a choice of two programmes at each loudspeaker.

Approximately 8,000 lighting points are installed, 2,500 of which are fitted with twin lamp fluorescent fittings. The standard of illumination is extremely high and conforms generally with the best practice on shore. A complete absence of glare is a notable feature of the fluorescent lighting installation.

Both ships are equipped with a comprehensive system of flight deck lighting to provide for night landing by aircraft.

For escape purposes, in the event of severe damage to the ship, with the normal lighting out of action, a complete system of battery-operated emergency lanterns is fitted. These relay-operated miners’ type lanterns switch on automatically immediately the normal lighting fails. “Red” lighting is fitted to allow for rapid adaptation of vision at night.

UNITED KINGDOM ARMED FORCES.

Britain had 845,900 officers and men in its Armed Services on April 1, the British Ministry of Defence announced on May 30. The Army had 446,900, the Navy and Marines 133,900, and the Air Force 265,100. These totals included the auxiliary women’s forces and all National Service trainees. Reserve and auxiliary forces totalled another 604,600. In addition, the Services employed 264,500 civilians.
SWEDEN NINTH AMONG SEAFARING NATIONS.

Shipping and shipbuilding are two important industries in Sweden today. She has always been a great seafaring nation. Since World War I, her merchant fleet has doubled and two industries have been established. The gross tonnage of her merchant navy is greater than ever before. Gross tonnage of the fleet was increased by 64 new ships last year. Sweden's merchant tanker fleet has increased to nearly 40 years' service in the port. Nearly 30,000 men are employed aboard Swedish merchant vessels.

FAREWELL TO THE GRAND OLD "AKAROA".

Shipwrights the world over hate to say farewell to a trim and trustworthy old ship. But that day finally came to every ship in time, be it a great liner, a small tender, or the "Akaroa," a three-screw steamer of nearly 40 years' service in the port. The "Akaroa," a triple screw steamer of 14,947 tons, was built by Messrs. Harland and Wolff, of Belfast, as the "Euphrates" for the Aberdeen Line, and sailed on her maiden voyage on July 1, 1914. Immediately on arrival in Australia she was requisitioned as an Australian troop ship and took troops in convoy to Egypt and the Dardanelles. In 1919, she was acquired by the Shaw Savill Line and renamed the "Akaroa." During World War II, the "Akaroa" remained in commercial service, although under general requisition, primarily with Government cargo and large numbers of service passengers. After the war she was recommissioned and her tonnage increased to 15,316 tons gross. The "Akaroa"'s long record of service was noted for its freedom from accidents or mishaps.

JAP. PEARLERS REACH ARNHEIM LAND COAST.

The Japanese pearl fleet has arrived in full control strength in Bougainville Bay, on north Arnhem Land coast, 250 miles north-east of Darwin. They arrived off Darwin on July 1st and reached the pearling grounds on June 4. The fleet is said to consist of 25 larger vessels, one mother-ship, and a Government inspection ship. The pearling fleet of the same size lifted more than 1,000 tons of pearl shell, valued at £75,000, from the waters off the North Australian coast. Darwin-based, Australia-owned luggers brought in only 170 tons of pearl shell.

HELIICOPTERS FOR UNITED KINGDOM SERVICES.

Britain's three fighting services have ordered nearly 200 helicopters, to be delivered within 18 months, the British Aircraft Constructors said in London on June 2. One hundred of the helicopters will be used for communication and rescue work, 100 for anti-submarine work, and some for general duties with the Royal Air Force and the Royal Navy.

INTERNATIONAL SHIPPING EXHIBITION.

An International Shipping Exhibition is to be held in the port to show the developments in navigation, machinery, and port organisation, and in industries allied to the shipping industry.

MACQUARIE ISLAND BASE AERIALS BLOWN DOWN.

Gales of over 100 miles an hour blew away the wireless aerials at the Macquarie Island base of the Australian division of the Antarctic Division of the Australian External Affairs Department. Macquarie Island traders are closed until the winter season. The aerials were blown down, and the weather was too rough to attempt to repair the damage. The wireless station was established at the island in 1947, and has been in constant operation since that time.

17 knots. The ships will carry mainly wool from Australia to German ports. Each ship will carry two passengers.

FRENCH ISLAND TRADER TOWED TO PORT.

The small island trader, the "Jacques Del Mar" (112 tons), was towed into Sydney on the night of June 11, after being rescued in a disabled condition. The 200 miles from Sydney. The "Paris" going "Wooma," owned by the "Wooma" Co., Ltd., took the ship to the wharf at Circular Quay. The ship was being towed from Noumea with a cargo of wool and island products when, in gale-force winds and mountainous seas, the hull went under the water, the propeller-shaft came out of the sea, and the crackling of engines broke down. The ship's master and the radio operator were rescued, but no other reports were received.

HUGE LOSS IN U.S. PORT OIL EXPLOSION.

An explosion in fuel storage tanks in the big Californian port of Los Angeles on the night of June 16 caused damage estimated at two million dollars (£893,000). A railway port worker was reported missing after the explosion, and a fireman was injured. A port official said that only about two of the storage tanks in the area were expected to be saved. Blazing oil from the exploding tanks sent flames towering high above the harbour. All port pilots were directed to lay off and move out of the harbour in case of fire. A fireboat, the "Weserstein," left Bremerhaven on May 18, sail for Macquarie Island to assist in the salvage operation. The "Weserstein" is of 175 tons gross, and has a speed of 20 knots.

A message from Tokyo on June 30 said that the Yutaka Fishing Company had reported that the Yutaka Maru, a 97-ton tuna fishing barge, sank with a crew of 20, 200 miles south of New Guinea. The barge, which left Japan for New Guinea on May 15, was destroyed by a typhoon and sank. The company had another order to catch on the No. 1 "Yutaka Maru," to search for it.
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R.N. CRUISER THANKS AUSTRALIAN NAVY BOARD.

H.M.S. "Eagle" (Lieutenant-Commander B. Collins, M.B.E., R.N.), which escorted H.M. Submarine "Alcide" (Lieutenant-Commander P. T. Miles, R.N.), carrying out cold-weather trials in British northern waters, was temporarily lost on March 14th. Although it was considered that this loss of communication was probably due to stress of weather, steps were taken to re-establish contact. An aircraft of Coastal Command was flown off to search for the submarine. The Royal Norwegian Navy put to sea shortly after a British Admiralty request was received. Fortunately, the submarine herself was re-established normal W/T contact, and the precautionary measures were cancelled.

FRIENDLY RELATIONS.

The Australian Commonwealth Navy Minister of the Navy and the Australian Commonwealth Navy Board for the kindness and hospitality extended to us during our visit to Australia. We have had an enjoyable and memorable time.

R.N. SHIPS HOME FROM FOREIGN SERVICE.

Two H.M. Ships recently returned to the United Kingdom following overseas service: H.M.S. "Lioness," minesweeper, commanded by Commander B. Collins, M.B.E., R.N., after many years' service in the Far East; and H.M.S. "Neride," frigate, commanded by Commander P. R. H. Harrison, D.S.O., D.S.C. and Bar, R.N., from the West Indies and H.M.S. "Glory," light fleet tanker, commanded by Captain T. S. White, D.S.O. and two Bars, R.N., from the Mediterranean. H.M.S. "Neride" had been overseas for six months during which she steamed some 170,000 miles. In 1946, the frigate left the United Kingdom for the South Atlantic Station, where she was engaged on a number of occasions in Simons- town (South Africa) Decksyard. Immediately prior to her return to Portsmouth, she spent six months on the America and West Indies Station, and acted as guard ship in the Falkland Islands. H.M.S. "Glory" returned after three months' service with the Mediterranean Fleet. Both the "Lioness" and the "Neride" recommissioned several times during their long periods overseas.

LOSS OF W/T CONTACT WITH SUBMARINE.

Routine W/T contact with H.M. Submarine "Alcide" (Lieutenant-Commander P. T. Miles, R.N.), carrying out cold-weather trials in British northern waters, was temporarily lost on March 14th. Although it was considered that this loss of communication was probably due to stress of weather, steps were taken to re-establish contact. An aircraft of Coastal Command was flown off to search for the submarine. The Royal Norwegian Navy put to sea shortly after a British Admiralty request was received. Fortunately, the submarine herself was re-established normal W/T contact, and the precautionary measures were cancelled.

GIFT FROM ENGLISH BOROUGH FOR H.M.A.S. QUEENBOROUGH.

A canteen of cutlery for the ward-room of H.M.A.S. "Queenborough" has been accepted by the Australian Commonwealth Naval Board from the Borough of Lytham St. Annes, England. The Minister for the Navy (the Hon. William McMahon) said, on May 19, that H.M.A.S. "Barcoo" would sail on that day to survey an area of sea with a view to seeing the feasibility of a coastal development. The ship, which is one of the new types of guided missiles which can seek out and destroy enemy planes.

WINGED-TORPEDO HITS TARGET AT SUPersonic SPEED.

The first of a group of Inshore Mineweepers being constructed under the American Offshore Procurement Programme for N.A.T.O. nations was launched by Mrs. Barry, wife of Captain Stephen Barry, R.N. (Retd.), Admiralty Regional Officer, S.W. Area, at the Appledore Yard (U.K.) of Messrs. P. K. Harris, Ltd. The new types of guided missiles which can seek out and destroy enemy planes.
FASTER LANDINGS ON DECKS OF AIRCRAFT-CARRIERS

(A Broadcast in the General Overseas Service of the British Broadcasting Corporation.)

A new United Kingdom invention to help the Royal Navy to operate the faster aircraft of the future from the flight-decks of aircraft-carriers was recently disclosed by the British Admiralty in London. As it consists of a large curved mirror on to which lights are projected, and by watching the mirror as he approaches the carrier from the stern the pilot is brought in almost automatically to a perfect landing at speed. The mirror is unaffected by the motion of the ship because of a gyro-mechanism perfected by naval gunnery experts.

This new landing aid has already been proved many times, by day and night, the first night landings being carried out by two pilots who had never before touched down in the dark. British Broadcasting Corporation reporter Douglas Willis went to the Royal Aircraft Establishment at Farnborough where he interviewed first of all, Mr. Dennis Lean, the scientist mainly responsible for developing the device.

"We have been studying the problems of landing at night for some years," explained Mr. Lean, "and one of the main results of our study has been that the pilot now no longer has to make his landing easier and safer is more precise information as to his exact position in space as he comes in to land. We found during the course of our tests that when the aircraft is overtaking the carrier at the increasing speeds of modern aircraft, the batman on the deck is just not able to appreciate quickly enough when the aircraft starts getting into a dangerous situation. "And by the time the batman has made up his mind that the aircraft is getting into a bad position, and signals that information to the pilot, the situation can very well have changed to the exact opposite. So our studies were directed towards finding some means of giving the pilot this more precise information."

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"The Royal Navy made many experiments before accepting this new aid. Lt. W. Noble, of the Fleet Air Arm, explained, "For the past twelve months, he said, "we have been developing the mirror aboard, at Farnborough, and periodically taking it out to sea aboard one of the carrier's hms Indomitable and, later, H.M.S. Illustrious," which is our regular trials carrier. "The very first mirror I tried was a rather crude one. The thing had been lashed up just to check the feasibility of the idea. This good enough to indicate that the principle was good, worthy of further development. Consequently a high-quality, optically-perfected mirror was manufactured, and for some months we flew up and down the runway at Farnborough. The work we did there consisted mainly of getting adjustments to such items as the intensity of light source, and trying out the technique of landing the aircraft, which is rather different from conventional runway landing. Instead of watching the runway as one normally does, and checking the aircraft in order to put the aircraft down smoothly and steadily, one merely watches now and then a spot of light on the mirror, keeping the spot of light in the centre of the mirror. In effect, this means that one is maintaining a constant speed, and no attempt now is made to watch the ship at all. "Something like 7" landings were carried out by two pilots, both of whom came away feeling very content that we had something in June. The British European Airways propose from here to start a regular passenger service to London airport, about 25 miles away. In short-distance transport either for passengers or freight, the helicopter seems to offer a full or partial solution to transportation problems in congested areas.

TRANSAIR AIR SERVICE NOW OPERATED BY LAND PLANES.

The last Tasman Empire Airship flying-boat from New Zealand arrived at Rose Bay, Sydney, on June 25. In future, land planes will operate on the service. The last T.E.A.L. Trans-Tasman flying-boat to operate on the service left Rose Bay for Auckland on June 27. The flying-boat service began in 1940. The land planes—a new D.C., which are replacing the flying-boat, will operate to Auckland and Christchurch from Sydney and to Christchurch only from Melbourne.

There is now no direct air service between Christchurch, Auckland and Sydney. A route via Perth is under consideration.

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PERSONAL PARAGRAPHS

ON THE RETIRED LIST.

The British Admiralty has announced that Admiral Sir Maurice Edeston, G.C.B., C.B.E., has been placed on the Retired List.

NEW C.-INC., PORTSMOUTH.

The British Admiralty has announced the appointment of Admiral Sir John H. Edeston, G.C.B., C.B.E., as Commander-in-Chief, Portsmouth, in succession to Admiral Sir John E. Creasy. Admiral Sir George E. Creasy, as Fourth Naval Member, Australian Commonwealth Naval Board, to serve in the rank of Commodore Second Class, in the appointment.

PROMOTED TO ADMIRAL.

The promotion of Vice-Admiral Sir Charles E. Lambe, K.C.B., C.V.O., to the rank of Admiral in Her Majesty's Fleet, has been announced by the British Admiralty.

COMMONWEALTH CADETS PASS OUT FROM DARTMOUTH.

Lieutenant-General Sir Dudley Ward, K.B.E., C.B., C.V.O., Deputy Chief of the Imperial General Staff, took the salute at the end of their prize-giving and passing-out parade at the Britannia Royal Naval College, Dartmouth, England. He presented the Queen's Telescopes to the two Chief Cadet Captains of the College—Peter V. Clarke, whose home is at Colquhoun Road, Larkhill, near Salisbury (Wiltshire), and David R. C. Cowling, of 9 Thornd Lane, Hawthorne Road, Bradford (Yorkshire). General Sir Dudley Ward also presented educational prizes to the term winners. Passing-out from the College were 33 Cadets of the Dartmouth Whichley, who entered in May, 1952, and 69 Special Entry Cadets, who entered in January, 1954. The latter included 23 Cadets from the Commonwealth. The parade consisted of an inspection and march past, for which the Royal Marine Band, Plymouth, was in attendance. The Guard consisted of 43 Special Entry Cadets, including Cadets from Ceylon, Pakistan, India, and New Zealand.

AWARDS FOR COURAGE IN FAR EAST INCIDENT.

The award of the British Empire Medal (Military Division) to 20-year-old Leading Seaman Gordon Cleaver, of Sydney, was announced for his part in the attack on the partly-damaged M.L. back to harbour. "The same issue of the London Gazette also announced the award to a Leading Seaman Cleaver serving in H.M.M.L. 1323, which was attacked without warning by a Chinese craft in the Pearl River Estuary on September 9th of last year, when the Commanding Officer was mortally wounded and six officers and men of the crew of eleven were killed. When thus suddenly and unexpectedly surrounded by death and bloodshed, he stood resolutely, to lead his men on the attack, and then in rough weather he brought the partly-damaged M.L. back to harbour." The same issue of the London Gazette also announced the award to a Leading Seaman Cleaver serving in H.M.M.L. 1323, which was attacked without warning by a Chinese craft in the Pearl River Estuary on September 9th of last year, when the Commanding Officer was mortally wounded and six officers and men of the crew of eleven were killed. When thus suddenly and unexpectedly surrounded by death and bloodshed, he stood resolutely, to lead his men on the attack, and then in rough weather he brought the partly-damaged M.L. back to harbour. The same issue of the London Gazette also announced the award to a Leading Seaman Cleaver serving in H.M.M.L. 1323, which was attacked without warning by a Chinese craft in the Pearl River Estuary on September 9th of last year, when the Commanding Officer was mortally wounded and six officers and men of the crew of eleven were killed. When thus suddenly and unexpectedly surrounded by death and bloodshed, he stood resolutely, to lead his men on the attack, and then in rough weather he brought the partly-damaged M.L. back to harbour. The same issue of the London Gazette also announced the award to a Leading Seaman Cleaver serving in H.M.M.L. 1323, which was attacked without warning by a Chinese craft in the Pearl River Estuary on September 9th of last year, when the Commanding Officer was mortally wounded and six officers and men of the crew of eleven were killed. When thus suddenly and unexpectedly surrounded by death and bloodshed, he stood resolutely, to lead his men on the attack, and then in rough weather he brought the partly-damaged M.L. back to harbour. The same issue of the London Gazette also announced the award to a Leading Seaman Cleaver serving in H.M.M.L. 1323, which was attacked without warning by a Chinese craft in the Pearl River Estuary on September 9th of last year, when the Commanding Officer was mortally wounded and six officers and men of the crew of eleven were killed. When thus suddenly and unexpectedly surrounded by death and bloodshed, he stood resolutely, to lead his men on the attack, and then in rough weather he brought the partly-damaged M.L. back to harbour.

NEW FIRST MEMBER, A.C.N.B.

It has been announced that Captain D. M. Russell has been appointed as Fourth Naval Member, Australian Commonwealth Naval Board, to serve in the rank of Commodore Second Class, in the appointment.

FINANCE MEMBER, A.C.N.B., RETIRES.

Mr. F. H. Smith, who has been Finance Member of the Australian Naval Board for the last five years, retired from the Commonwealth Naval Board on May 12. He has been in the Commonwealth public service for 42 years, during which time he was employed in the financial and secretariat branches of the Department of the Navy. He served in naval establishments in Sydney and at Navy Office, Melbourne. A short period of his service was in the Defence Department. Mr. Smith was entertained at luncheon by the Naval Board on Saturday, June 12. They were Lieutenant-Commander F. S. Holt, R.A.N.V.R., of Nunawading (Victoria); Acting Sub-Lieutenant G. V. Doblin, R.A.N. (S), of Lindfield (N.S.W.); Acting Sub-Lieutenant B. S. H. Hogenson, R.A.N., of Double Bay (N.S.W.); Surgeon Lieutenant-Commander R. K. Newing, R.A.N., of Kow (Victoria); Surgeon Lieutenant-Commander W. G. Teas, R.A.N., of Elizabeth Bay (N.S.W.); and Surgeon Lieutenant-Commander D. G. Teas, R.A.N., of Gardenville (Victoria). The Minister for the Navy (the Hon. William McMahon) said, on June 13, that the review would be attended by present and former officers and men of Naval Reserves from all parts of the British Commonwealth. The 50th anniversary of the Royal Naval Volunteer Reserve occurred in June, 1954, but, because it coincided with the Coronation, the Board of Admiralty decided that it should not be celebrated by a review until June this year.

WELL-KNOWN SHIPPING MAN RETIRES.

Mr. F. L. Williams, assistant Australian shipping manager of Dalgety & Co. Ltd., retired at the end of June after 42 years with the overseas shipping trade in Sydney. Mr. Williams began his career with the Orient Line in Sydney in 1912, and, after World War I, joined the Commonwealth Line of steamers. When that line was sold to Shaw, Savill and Albion Company, he transferred to the shipping department of Dalgety & Company, Ltd., as an executive. He had been Australian shipping manager since 1942.
A large number of English bank and American dollar notes were salvaged by the Italian vessel "Rostro" from the wreck of the American "Flying Enterprise" (Captain Carlsen), which founded early in 1952.

Two Customs officers at Premanite (West Australia) on June 8 seized opium worth about £11,250,000 on a freighter from India.

Shipping was so interleaved with the business of Burke & Co. Ltd., that the company must try to carry on, despite the host of troubles, said the chairman, Mr. James Burns, at the company's annual meeting on May 20.

Australian-owned vessels, even if registered in London, or elsewhere, were handicapped in various ways, including scale of wages, and the question of re-registration and re-modulation. They had to compete against foreign tonnage in the Singapore and island trades, and could only survive if they had equal conditions, Mr. James Burns, chairman of Burns, Philp & Co. Ltd., said at his company's annual meeting on May 20.

Japan is planning a $70-million (L11,250,000) trade barrier deal with the Russian Soviet, the "New York Times" reported on June 27. The newspaper's correspondent in Tokyo is reported to have said that four Japanese companies have signed provisional agreements through the unofficial Soviet mission in Tokyo for exchange of goods with Russia over the next two years.

Economic supply of oil to Australia and New Zealand was still hindered by the lack of refinery capacity, said the chairman of the Anglo-Iranian Oil Co., Sir William Fraser, in his annual address recently. Good progress, however, was being made on the new 3,000,000 tons capacity refinery at Kwinana, Western Australia, which was expected to be in operation early next year, he said.

The American-built Baltic type ships, popularly known as "jeppe" which were sold to British owners after the war and frequently expensively altered, were being sold to various flag at low prices.

White's Marine Engineering Company (U.K.) has introduced an automatic oily-water separator, electronically controlled. The Greek Government is to pay half the cost of the new oil refinery, with a capacity of 1,300,000 tons of crude oil a year, by March 1955.

At the British Association Annual Meeting at Liverpool (U.K.) the question was raised why, with over 70 metallic elements at their disposal, engineers had practically confined themselves to alloys of iron, copper, aluminium, and magnesium.

An innovation in the new Swedish-American liner "Kungs-holm" is sloping down the outer section of the boat deck to have the boats as low as possible— partly to reduce top weight and partly to let them be loaded before the gravity davits are swung outboard.

The Egyptian Courts are now giving sentences of life imprisonment to drug smugglers, but the police seem to be catching very few of them compared with the drugs that are obviously entering the country.

There is a growing opinion in all quarters that a modern, technically perfect fire-alarm system is preferable to sprinklers on board.

The dredging of the turning area and the approach channels to the jetties of the Anglo-Iranian's new refinery at Aden, Arabia, should be nearly complete by now.

American engineers are studying the functional problems in the suggestion to install atomic power in the two 60,000-ton U.S. Navy aircraft-carriers "Forsythia" and "Audacity," now under construction.

The Royal Mail Lines Ltd. are keeping the same design for new passenger ships up to date for use as soon as conditions on the South American trade justify their construction.

The late Lord Aberconway, chairman at the time of his death of John's Brown's, of Clydebank, in left unsettled estate of £242,251 gross; £163,719 nett, on which duty of £106,103 had to be paid.

The Orient Line's new "Orsova" has a novel shape of funnel for liners of that line. It has the functional purpose of being a smoke stack with smoke and smuts so that they will be as little noticed as possible. Besides helping to make up for the absence of a mast, the funnel can contain ventilating intakes and take the discharge from the boilers.

The "Passit" and the "Pamit," the last of the great wind-jammers, beloved in Australia and practically the last remaining link with the world-famous grain races from Australia to Europe, are now in German ownership.

The new Orient liner "Orsova" is the first passenger ship ever to be built without any painted cabins. The walls are covered with plastic materials pale in colour. The predominant colours in the passenger cabins are beige, green, and pink.

We were recently asked which was the fastest fish in all the seven seas. It is generally agreed among marine biologists that this distinction must go unquestionably to the swordfish. If it is ever your fortune to see one of these 'ocean gladiators,' note the supreme shapelessness of its body. It is the epitome of stream-lining. The pointed head, with its proceeding yard-long sword, the sharp backward rake of the dorsal fin, the living, light, power-endowed body sloping gradually, and with perfect symmetry, to the powerful tail, compose a vital living form supremely fitted for the most rapid and forceful movement through the water. Though the maximum speed of a swordfish has never yet as far as we know been definitely ascertained, we know that the velocity and power this fish develops when in pursuit of its prey, which it impales on its sword, are tremendous. Professor Richard Owen has testified that the swordfish "strikes with the accumulated force of fifteen double-headed hammers." Its velocity is equal to that of a swift shot, and is as dangerous in its effect as a heavy artillery projectile. "A wooden ship, named the "Fortune," wrote Frank W. Lane, in his fascinating book, Nature Panada, "was once struck with a prodigious force by a big swordfish. The sword pierced the copper sheathing, an inch of under-shielding, and a three-inch plank of hard wood. Continuing its journey of investigation, the fish then poked its nose through 12 inches of white oak timber and a hard oak ceiling 22 inches. An oil cask then barred its way. Into this its sword went at full tilt and then broke off, thus forming a convenient bung for the hole it had bored..." It is claimed by some observers that the fact of clean penetration implies a speed, at the moment of impact, of not less than 60 miles an hour.

Ocean raft voyaging is becoming a regular habit. A 61-year-old American, William Willis, on June 22 left Callao, Peru, on a 34-foot raft with only a cat and a parrot for company, in an attempt to cross the Pacific Ocean to Samoa. A Peruvian Navy tug towed the raft to a point 10 miles offshore. When the tow-line was cast off, Willis hoisted his two orion sails. The parrot climbed into the rigging, and the cat took shelter in the small, palm-thatched cabin. The raft, named the "Seven Little Brothers," after the seven fatal tree-trunks from which it is made, is about half the size of the raft Thor Hayerdahl and his five fellow-Scandinavians used on the Kon Tiki expedition in 1947. Willis expects the voyage to last four to five months. He says he has no scientific theories to prove

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The Angry Admiral, by Cyril Hughes Hartmann, published by Heinemann, London.

British naval history is a fascinating and practically inexhaustible study. And no aspect of it presents a more fascinating subject for study, or one more worthy of our attention, than that provided by the long list of famous sea-commanders that have successively combined to make Britain's sea power through the past four centuries so illustrious. From the reign of Elizabeth the First to that of our present gracious Sovereign, Elizabeth the Second, our sea commanders have been among the most distinguished figures in British history. Merely to recite some of their names is inspiring. Drake, Hawkins, Grenville, Blake, Albermarle, Benbow, Rooke, Vernon, Anson, Boscawen, Hood, Blake, Nelson, Collingwood, Jellicoe, Fraser, Mountbatten—what valiant occasions they conjure up and what exciting and outstanding personalities!

Admiral Vernon, the subject of this book, though perhaps not the greatest of the great, was nevertheless a man of first-rate calibre, with a personality to match. Indeed, as a subject for biography and because of his initiative as the father of naval tactics, Vernon was in many ways the most fascinating figure that ever trod a British quarter-deck. He was a great innovator. Vernon had a hundred predecessors and contemporaries. He was the man who gave flexibility to the line of battle, enabling admirals adopted it, bringing about a stereotyped course of action that stultified all original initiative. Vernon was the man who gave the line of battle, partly through permitting a certain amount of latitude on the part of his junior commanders, partly by the introduction of additional signals to increase his vocabulary when talking to his ships. But his success was no easy one—hence the title of Mr. Hartmann's book, The Angry Admiral. Undoubtedly, Vernon had a great eye for naval affairs. In advance of his predecessors, Vernon had a grasp of naval affairs far in advance of his predecessors and contemporaries. His success was no easy one.

There is no question that Mr. Hartmann, through apt exclusion of certain details that could with advantage be included, is an extremely competent interpreter, and his account of Vernon's life is written with both consuming interest and an able scholarship. Mr. Hartmann's manner of treatment is obvious from the first. He is a very competent historian and biographer of Mr. Hartmann's calibre to present to us such inspiring and rewarding subjects as are provided by our great naval hierarchy of the past.

The Angry Admiral is both inspiring and informative. Mr. Hartmann's method of treatment is sufficient guarantee that he writes with due knowledge and understanding, and he gives full effect to the story of this man, whom it is our honour to place among that long list of sea commanders who sailed and won the supremacy of the seas for Old England.

A message from Auckland (N.Z.) on June 18 reported the loss that day of the trawler "Outlaw." The trawler smashed on to the rocks at Wainui, two of the crew, Maynard Alexander Canning and John Henry Robert Trewhitt, were lost.
Federal Council, Ex-Naval Men's Association of Australia

Patron in Chief: Her Majesty The Queen.

The Federal Council of our Association is now domiciled in South Australia very kindly made office and Council Meeting Room. Six meetings have been held this year, and all have been fully attended.

Members who have joined or rejoined our Association since January now total 400. Federal Council feel certain that over 1,000 members will be added before we close the year. With two new Sub-Sections already functioning in Queensland (we refer to Balmoral and Sandgate), Federal Council was sure it is worth while. Let us, as Australians, re-capture some of the public spiritedness which existed prior to the recent War. Good, solid men are needed in our Association to-day to fill the various offices, and we hope we have on our various committees, the less work falls on the Hon. Secretary and the President, whether it be the work of a small Sub-Section or the responsibility of State Council. We want you all to help to make this Association a name in this great country.

The visit of Her Majesty the Queen and His Royal Highness the Duke of Edinburgh was further cemented when Mr. McMahon added, "Our Sub-Section is functioning so well. Of course, we realise that opening a new Sub-Section means extra work for all our members, but surely it is worth while. Let us, as Australians, re-capture some of that public spiritedness which existed prior to the recent War. Good, solid men are needed in our Association to-day to fill the various offices, and we hope we have on our various committees, the less work falls on the Hon. Secretary and the President, whether it be the work of a small Sub-Section or the responsibility of State Council. We want you all to help to make this Association a name in this great country.

The visit of Her Majesty the Queen and His Royal Highness the Duke of Edinburgh gave a moral uplift to all public organisations in the Commonwealth. It was indeed a proud moment when we witnessed our own Federal President being presented to the Royal couple. The significant tie between our Association and the Duke of Edinburgh is underpinned by the National War Memorial at Canberra as our representative. Mr. Handby was also able to make an official call on Government House, and is still telling us of the warm welcome he received from His Excellency the Governor-General. A call was also made on the Right Hon. the Prime Minister, so we can say much was achieved by this visit. Fleet Admiral William F. Halley, U.S.N., flew into Adelaide for Coral Sea Week. Our President was personally presented to the Admiral, who expressed great pleasure at being in this country and of the message that this Association sent him on his arrival. With the co-operation of the State Secretary, South Australia, we were able to entertain some of the crew of his aircraft.

To our various members who are on the sick list, we wish them a speedy recovery.

To the relatives and friends of the following members who passed to their reward, we extend our deepest sympathy:

John Eyers and Norman Richard Michael John O'Neill. Cyril Atlee, of New South Wales; Thomas Reid, of Victoria; John Frank Dittmer, Raymond W. Sykes, and Robert Richard Cain, of South Australia . . . "LEST WE FORGET."

R.A.N. ANTI-SUB. FRIGATE FITTED WITH "LIMBO"

The most deadly anti-submarine mortar ever developed has been fitted to H.M.A.S. "Queenborough," now being converted from a destroyer to a fast anti-submarine frigate.

The mortar, known as the "Limbo," is controlled by an electronic brain which finds its target, aims, fires, and sets its bombs to explode at the correct depth. The Minister for the Navy (Mr. McMahon) said the "Limbo" would be more deadly than any other weapon. It will be able to fire mines, depth charges, and torpedoes. The mortar will be able to be fired from a destroyer to a fast anti-submarine frigate.

They are constructed so that they can be armed either as gunboats or as torpedo boats. In the gunboat role they will mount either a 4.5 inch gun and a single Bofors gun, or two single Bofors guns in the torpedo-boat role they will be armed with four 21in. above-water torpedo tubes and one small gun.

The Deltic engine has been designed and developed for the Royal Navy by Menzies. The engine was tested in the Zeebrugge Raid. Two wreaths were laid by the British party, one for the Royal Navy and one for the Royal Marine. The engine will develop 2,500 shaft horsepower at 2,000 revolutions per minute. The striking feature is that the engine and reverse gear weighs only 10,500 lb. and therefore gives one horsepower for every 4.2 lb. of its weight. This is the best power-weight ratio ever achieved in a marine Diesel engine.

H.M.S. "Starling" (Lieutenant-Commander L. G. Lyne, D.S.C., R.N.) sailed from Portmouth on April 23rd, taking a Royal Naval and Royal Marine party to attend the annual Service of Commemoration at the Zeebrugge Memorial on April 25th. Included in the party were Major-General C. W. Lampough, C.B.E., D.S.C., a Royal Marine officer who was awarded his D.S.C. for services in the Zeebrugge Raid. Two wreaths were laid by the British party, one for the Royal Navy and one for the Royal Marine. Maritime News of the World.

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GARDEN ISLAND DOCKYARD ADMINISTRATION CHANGED.

The method of administration of Garden Island Dockyard, Sydney, has been changed.

The officer-in-charge of the establishment will, in future, be an officer of the naval engineering branch, instead of an officer of the naval executive branch as formerly.

The Minister for the Navy said, on May 2, that the post of Captain Superintendent of H.M.A. Establishments, Sydney, including the Dockyard, which had been held by the last occupant, Captain F. N. Cook, D.S.C., R.A.N., an executive officer, since September, 1953, had been abolished, and Captain Cook had been appointed to the new post of Captain of the Port, Sydney. The post of Engineer Manager, held by Captain (E.) K. McK. Urquhart, R.A.N., had also been abolished, and Captain Urquhart had assumed the new title of General Manager.

The Minister added that the changes approved by the Navy Board followed an investigation into the administration of the dockyards at Garden Island and Williamstown (Victoria), by Mr. Weymouth, Chairman of the Australian Shipbuilding Board. The investigation had been begun, at his request, in March, 1953, and concluded in the following July.

The administration of the Garden Island Dockyard, which is primarily an industrial establishment engaged in ship repair and construction work, would now be under the control of a trained engineer as General Manager, who would take charge of the whole of the industrial activities. He would have his staff superintendents specialising in each section of dockyard work and a number of naval engineers officers to supervise and oversee the work carried out on board the vessels under repair. By this means a very close liaison was established between ship and dockyard personnel, resulting in work being carried out expeditiously and well.

The changes, which signified the modern trend in dockyard administration, were designed to simplify control and should result in an improvement in the efficiency of the Dockyard.

BIological WARFARE TRIALS.

Trials of methods of defence against biological warfare are to be carried out this year in Bahaman waters, West Indies, Mr. Sandsy, the British Minister of Supply, announced on 12th March.

The Minister issued the following statement:

"During and since the war, successive Governments have had to consider methods of defence against all possible forms of attack, including even such forms as biological warfare, which are expressly forbidden by the rules of war. Her Majesty's Government have not neglected consideration of the precautions which would need to be taken should this form of warfare ever be applied against us.

"In recent years, trials have been carried out off the coast of Scotland to obtain the technical data on which these precautions should be based. It has been decided that certain further trials should be carried out in 1954 in Bahaman waters, where the climate and other circumstances are much more suitable.

"The area chosen is far out to sea, at least 20 miles from any inhabited island, and is widely removed from any normal shipping route. This decision has been taken after full consultation with the U.S. Navy, and with the full co-operation of the Bahaman authorities."

The British Admiralty subsequently confirmed that H.M.S. "Ben Lomond" was involved in these forthcoming trials.

Clare D'Oyly Memorial Prize.

The Clare D'Oyly Memorial Prize for the Spring Term, 1954, has been awarded to Acting Sub-Lieutenant (E) William Garth Mumford, R.N., of Claremont, Springfield Road, Elthorne, Plymouth. Sub-Lieutenant Mumford is 21, and entered the Royal Naval College, Dartmouth, as a Cadet in 1930. He was educated at Mount House School, Tavistock, and Clifton College. The Clare D'Oyly Memorial Prize consists of a sum of money which is spent in any way the winner chooses, and is provided from a fund created by the late Vice-Admiral W. H. D'Oyly and Mrs. D'Oyly in memory of their son, Lieutenant (E) R. C. H. D'Oyly, who passed out of the Royal Naval Engineering College, Plymouth, in April, 1940, and was killed in action when H.M.S. "Bonaventure" was sunk on March 31st, 1941. It is awarded on completion of the two-year "Basic" Course, in Engineering, to the Acting Lieutenant who is considered to possess the greatest qualities as an officer out of the "term" or entry to which he belongs. On completion of this course, officers go to sea for a period of one year to gain practical experience, on completion of which they return to the Royal Naval Engineering College for a further year in which they undergo a "specialist" course in one of the three main branches of Naval Engineering—Aeronautical, Marine, and Ordnance.

JET WITH SPEED OF 600 M.P.H.

The U.S. Navy has unveiled a jet aeroplane which is said to be the smallest and lightest American jet combat aircraft. Although the plane, designated the Skyhawk, has a wingspan of only 30 feet and a length of about 40 feet, it is capable of speeds of 600 mile-an hour. The plane is only about half the size of existing planes performing comparable functions. The aircraft was displayed recently at the Douglas Aircraft Company.