THE NAVY

AUSTRALIA'S MARITIME JOURNAL OCTOBER, 1955 1/6

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Shooting a scene for the Lost Children sequence, in Mulcha sandhills. From left — Warren Mearns, unit electrician, John Heyer, producer-director, and behind the camera, Ross Wood.

You have to be tough in the desert

You would probably get pretty hungry if you could only eat between sunset and sunrise, but this situation had to be met by the Shell Film Unit, on location in Central Australia.

Flies and other insects were the reason for making daytime eating an impossibility.

Sand, blown by gale-force winds, was another factor against eating and, at one stage, the unit starved for two days because of a raging sand-storm which devastated the camp.

These formidable difficulties, with many others, were encountered by the unit, but the film—subsequently called "The Back of Beyond"—was finished on schedule.

The Spirit of a Country

It has been screened in private theatrettes, country halls and in Shell mobile projection units all over the country, and in 1954 won the Grand Prix Absolute at the Venice Film Festival.

Through this medium, the Shell Company have contributed towards making known a virtually unknown area. In the words of the unit's director, John Heyer—the film shows "The spirit of a country, and its people's spirit of endeavour".

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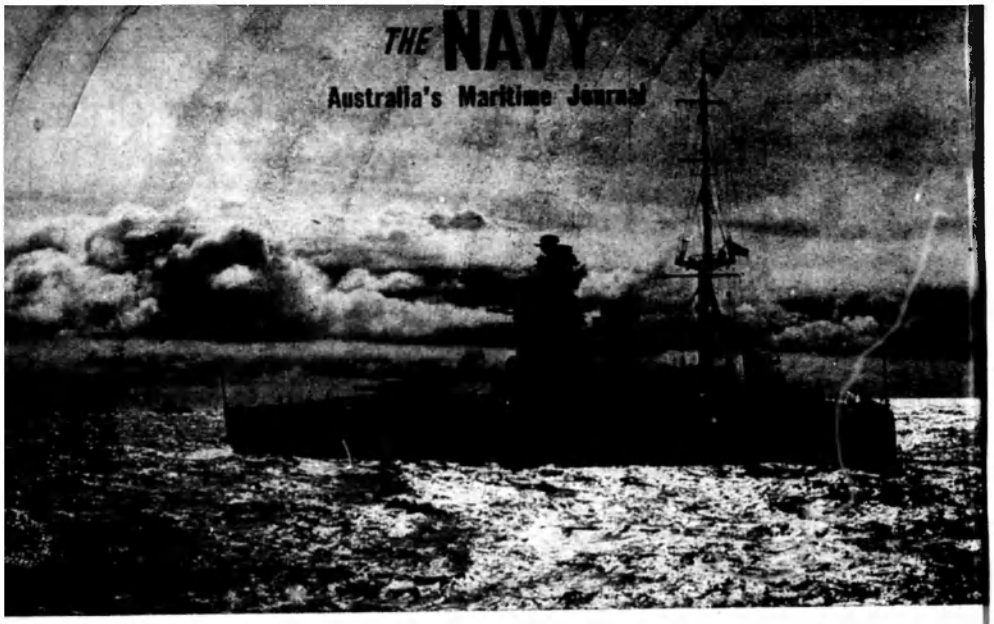

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A PROUD ANNIVERSARY

October 21, the 150th anniversary of the Battle of Trafalgar, is a day of profound significance to the Navy.

On that day the men and women of the Navies of the Crown, wherever they be serving, solemnly rededicate themselves to the service of the peoples of the Crown throughout the Commonwealth. It is a day both of proud remembrance of achievement and of pledge for the future.

Australia Day, Armistice Day, and the great religious festivals all have their deep emotional call. Trafalgar Day, fittingly associated with the deathless fame of Nelson, is peculiarly the Navy's day.

King George V, himself a sailor, used these words in his address to both Houses of British Parliament when the Armistice was signed in 1918.

> "Our Navy has everywhere held the seas. . . . The Fleet has enabled us to win the war. In fact, without the Fleet the struggle could not have been maintained; for upon the command of the sea the existence and maintenance of our land forces from the first depended."

How truly these words could apply to every time of crisis through which we have passed sinced the Armada. They are as succinctly true of the last World War as of the times of Napoleon's conquests.

Nelson will always epitomise the Navy to the man in the street.

> Admirals all, for England's sake,
> Honour be yours, and fame!
> And honour, as long as wave shall break,
> To Nelson's peerless name!

England has not always kept faith with her great servants. Only too often she has been forgetful of them and ungenerous to their memories. Drake in disfavour within a year of the destruction of the Armada, Hawke burnt in effigy by the very people he was to shield by his audacious victory at Quiberon, Rodney recalled from the scene of his greatest triumph in virtual disgrace. The list is far too long, nor is it confined by any means to the Navy. Even Waterloo, as Phillip Guedalla remarks, is remembered rather as a battle which Napoleon lost than one which Wellington won!

Nelson, however, is immortal. Frail, humane, assured in his ability and that of the men he led, he fell in his greatest hour, and will always represent, in himself, the service which he adorned.

The great sailors who have preceded and have followed him would be the first to accord Nelson his place in history and in our hearts.

The Royal Australian Navy, in its brief but eventful history, has shown itself worthy of the flag it wears. And it has a fateful part to play in Australia's future. The very vastness of Australia's interior tends to cause many to forget the equally vast seaboard and the fact that we are essentially an island people and a maritime nation.

We are a people in whose hearts the spirit of Nelson should never be allowed to fade.

THE LAG IN NAVAL RECRUITING

The announcement by the Second Naval Member that the Royal Australian Navy is to seek 1,000 recruits in Britain does not make happy reading.

Commodore Morrow, one of the first and one of the most distinguished graduates of the Australian Naval College, whose responsibility to-day is the manning of the R.A.N., must himself have felt saddened to take this step. Obviously it is a stopgap measure.

But the seriousness of it is that it amounts to an admission that the R.A.N. cannot attract the recruits it needs, apart from retaining its trained personnel when their initial terms of enlistment expire.

The R.A.N. recruiting campaign in the United Kingdom must offer some inviting inducement. Without it what chance would there be of attracting to naval service young Britons who have closed their ears to the blandishments of their own Royal Navy?

The inducement which the R.A.N. will offer, of course, is migration. It will rely on the attraction of Australia rather than on the attraction of Australia's Navy. While we cannot criticise any effort to increase migration to Australia, this form of R.A.N. enlistment appears to be short-sighted to say the least. How does the R.A.N. propose to retain the U.K. recruit in the service when it is finding it increasingly difficult to retain Australians?

If these young men join our Navy only to enjoy the higher standards of Australian living, we may expect them to "take their time" at the first opportunity, so that they may pursue their enjoyment unrestrained by the duties of service life.

JOIN THE NAVY LEAGUE

The object of the Navy League in Australia, like its older counterpart, the Navy League in Britain, is to insist by all means at its disposal upon the vital importance of Sea Power to the British Commonwealth of Nations. The League also sponsors the Australian Sea Cadet Corps to interest the right type of lads in the Roval Australian Navy — either to start them upon a career or to provide a healthy pleasurable means of qualifying them to be of service in the Senior Service in the event of emergency.

The League consists of Fellows (Annual or Life) and Associates.

All British subjects who signify approval to the objects of the League are eligible.

MAY WE ASK YOU TO JOIN

and swell our members so that the Navy League in Australia may be widely known and exercise an important influence in the life of the Australian Nation?

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Building the R.A.N. Battle Group

By Rear-Admiral H. B. Farncomb, C.B., D.S.O., M.V.O., R.A.N. (Ret.)

THE JOB IS to prevent an enemy from landing on Australian soil and to stop him from establishing any bridge heads.

These are the reasons why the Royal Australian Navy, in association with the Royal Navy, has decided to build up mobile task forces capable of fighting in any part of South East Asia or the Pacific.

The hard core of any present-day task force is the carrier, the value of which, for all to witness, was proved in the Korean war.

In a war of nuclear weapons, expert advice given to the Royal Navy and the American Navy supported the carrier battle group as a self-protecting largely self-contained mobile airfield. Such a battle group was compact and hard hitting and at the same time pliable.

During the last war the vulnerability of the aircraft carrier was much discussed, but of the 226 carriers used by all sides, only 39 were sunk, and of these only four by shore-based aircraft. Of these four carriers, all of which were American, three were sunk by Japanese suicide aircraft.

As for a future war, the carrier battle group, as a mobile target with its screen of fighters and its early-warning aircraft and radar, might well be relatively immune from some of the most modern and formidable weapons.

With the arrival early next year of the new aircraft carrier H.M.A.S. *Melbourne*, Australia will have a task force that will be as strong as any in the world. The new carrier has been equipped with:

The Angled Flight Deck, which has revolutionised the technique of deck landing, and so will enable her aircraft to land on with much less risk than on the conventional straight deck. It will ensure maximum safety for pilots and flight deck personnel and provide a far greater operational efficiency. If the hook, which protrudes from the tail of the plane, missed the arrester wires as the aircraft was making a conventional straight deck landing, it crashed into a barrier, with possible damage to the plane and injury to the pilot.

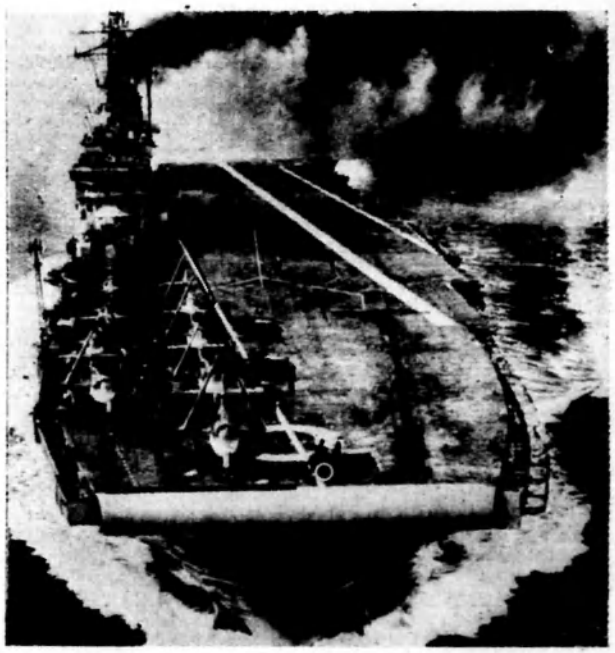
The barrier is erected to prevent planes which miss the wires from crashing into plane which had previously been landed and were parked on the forward part of the flight deck.

With the angled flight deck, planes land on at an angle of six degrees across the flight deck. If the pilot misses the arrester wires, he merely accelerates and takes off to come round for another landing.

A safety barrier can be erected on the angled flight deck, but it would only be necessary if the hook of the aircraft breaks off and there is no other way of stopping it.

The Visual Landing Aid is a signalling system incorporating lights, mirrors and gyro mechanism and will ultimately replace the landing signals officer.

This officer was stationed near the stern of the carrier to signal the pilot whether he was on course and at the right height for a landing. He was known as the "batsman" because the discs which he



A Royal Navy aircraft carrier, fitted with the angled deck and steam catapult.

used to convey his signals to the pilot are shaped like table tennis bats.

Basically, the aid consists of a large curved mirror which the pilot watches when 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.

Since the pilot cannot take his eyes from the mirror sight in the aircraft carrier, he cannot look down to his instruments to check his speed approach. To overcome this difficulty a special panel is arranged on the windscreen of the aircraft. In it reflects a red, yellow or green light, which tells the pilot whether he is flying too fast, too slow or just right. These lights are actuated by the air speed indicator.

In a series of trials the practicability of the new aid has been proved by some hundreds of landings. These have been made both by day and by night. The first night landings to be made with the new aid were accomplished by two pilots who had never before deck-landed at night.

The Steam Catapult, which is powered by steam from the main boilers, is perhaps the greatest post-war development to have taken place in carriers. It enables the heavy aircraft of to-day to be launched, if necessary, while the ship is lying at anchor.

Since the first air-operated catapult for the Royal Navy was fitted in H.M.S. *Vindictive* in 1925, there has been steady development to improve the efficiency of aircraft launching by this means. The air-operated catapult gave way to one operated by cordite and this in turn was replaced by a hydro-pneumatic type.

The hydro-pneumatic unit, situated below the deck, transmits its power to the aircraft by means of flexible steel wire ropes passing round pulleys. These wires are attached to a small trolley, which pulls the aircraft along the deck by means of a towing bridle.

With the increase in the weight of the aircraft and higher launching speeds, the power required has necessitated larger and heavier power units and correspondingly heavier wires and pulleys. It became evident that these had reached a size and weight which make further improvement of this type impossible, because the entire mechanism would be too bulky and heavy to install in an ordinary ship. For this reason catapult experts in the Admiralty and industry sought to find an entirely new launching method, and in the course of their research found that a slotted cylinder mechanism had, during the last century, achieved some results as a means of propelling railway trains. As long ago as 1810, George Medhurst, of Shoreham, Kent, proposed the propulsion of trains by means of air pressure in a tube, and in 1844 the great I. K. Brunel persuaded the South Devon Railway to adopt an atmospheric system between Exeter and Totnes.

Although this principle proved impracticable for railways of any length, it worked effectively for short distances, and has now been entirely successfully applied to the launching of aircraft. The system incorporates slotted cylinders in which there are free pistons. Arms projecting through the slots transmit the steam power within the cylinder to the aircraft, an ingenious sealing device having been devised to prevent steam escaping through the slots.

H.M.A.S. *Melbourne* will carry Sea Venom, two-seater day and night jet fighters and turbo-prop Gannet aircraft, which can be used either for submarine detection and destruction or for bombing other ships or land targets.

Supporting the carrier are the four destroyers, *Tobruk* and *Anzac*, modern Battle class, and *Arunta* and *Warramunga*, modernised Tribal class.

The destroyers are the terriers with which the bulldog is surrounded. Their anti-aircraft guns, some of which are radar controlled, can provide a screen which any low flying enemy aircraft would find it difficult to penetrate.

Looking ahead, there are at present building in Australia three Daring class ships. These ships, with a full load displacement of 3500 tons are, in reality, light cruisers, and for this reason have been removed from the destroyer class.

To combat the submarine menace, all these ships are fitted with the latest anti-submarine devices, and in addition, by late this year, the Navy will have in commission three fast anti-submarine frigates —the converted destroyers *Quadrant*, *Queenborough* and *Quickmatch*.

With H.M.A.S. *Sydney*, at present being used as a training ship, but which could quickly assume its fighting role, 13 frigates and 28 ocean minesweepers, surveying and coastal defence vessels, and a fleet tanker, Australia is in a position from which it could take both aggressive and defensive Naval action, either separately or in company with an Allied Task Force.

Dockyard employees' strike ended

About 3,800 striking Australian naval dockyard employees, who struck on July 4, went back to work on August 30.

The Navy Board employs the strikers at its dockyards at Garden Island (Sydney) and Williamstown (Victoria).

They struck as a protest against the alleged refusal of the Navy Board to negotiate with 24 unions on a new log of claims.

Their strike prevented the refitting of the destroyers *Tobruk* and *Anzac*, and the aircraft-carrier *Sydney*.

Royal Australian Navy Cadets from H.M.A.S. Sydney are shown here examining the encrusted propeller of the 1,060-ton frigate H.M.A.S. Swan, which is being converted at Garden Island, Sydney, to a training sloop for the R.A.N. College, Flinders. With the Cadets is the dockmaster, Mr. R. D'Arcy.

NEWS OF THE WORLD'S NAVIES

U.K.-Soviet exchange of naval visits

British and Russian naval forces will exchange visits about the middle of this month.

The Royal Navy will send (probably to Leningrad) two light carriers, one 10,000 ton cruiser, and a group of Daring class ships.

The Russian squadron probably will visit Portsmouth and will include at least four 12,800 ton Sverdlov class cruisers and a number of 40 ton Skori class destroyers.

The visits were suggested at the Geneva Big Four conference in July and arrangements are now almost complete.

The Russian cruisers each carry more than 1,000 men, which will mean several thousand Russian sailors will be ashore in Britain for the first time.

Naval authorities are arranging parties, dances and sightseeing trips for the Russians, who probably will stay four days.

Reported moves to cut down R.N.

The Admiralty has appointed a special committee to find ways of further reducing the size of the Royal Navy, says the London "Daily Express."

The newspaper says the reduction is for three reasons:—

Less money and manpower are to be allotted to the Navy because of further economy cuts by Cabinet.

Defence chiefs are basing their plans on the near certainty of at least ten years without a global war; and

The scope of a navy in war has been greatly reduced by the advent of the hydrogen bomb.

The "Daily Express" says that a full-scale inquiry is being made into the present organisation of the fleet, naval shore stations, Admiralty headquarters and the Royal Marines.

It is hoped that most of the economy cuts can be made in shore establishments, including the Admiralty itself.

Many officers and men now on shore duties will be sent to sea.

The money saved will help to pay for costly atomic submarines and guided-missile ships which the Admiralty plans.

The inquiry, headed by the First Sea Lord, Earl Mountbatten, is expected to produce the first clear picture of what an atomic-age navy will look like, says the newspaper.

New age group for R.A.N. College

More than 200 boys sat for the Royal Australian Naval College entrance examination on August 30. The tests were held in 73 country towns as well as the capital cities.

All of the boys were in the 15½ to 16½ years age group. They will be the first to be chosen under this age group, which was introduced this year. Previously the entries have been confined to 13- and 15-year-old boys. These entries have now been abandoned.

Boys who pass the examination will be given a medical examination. The final selection will be made by an interviewing committee. They will enter the College in January next year and stay there for three years.

U.S.N. planes to refuel in flight

The U.S. Navy Department announces that all its fighter planes now in production will be fitted with gear enabling them to be refuelled in flight.

A number of aircraft-carrier squadrons have already been equipped with the gear, which gives the planes greater striking distance with heavier armament loads.

Refuelling in flight could more than double a fighter's range, the Navy announcement said, and carriers could launch their planes much further from the enemy target. Fighters flying as overhead protectors could be kept aloft much longer.

Nazis "never planned to invade Britain"

Nazi Germany never planned to invade Britain in World War II as Hitler never made up his mind about it, former German Field-Marshall Albert Kesselring said in an interview published in the "U.S. News and World Report."

He said that the greatest danger lay in the Home Fleet.

But this could have been dealt with by the concentration of all German naval and air forces.

An invasion was often contemplated, but never planned, as "Hitler did not want to destroy the British Navy or the British Empire." Instead he wanted to make peace by offering protection for their Empire. But when Churchill said "no," Hitler knew that by lack of understanding the British mind he had offended them.

The fault of failing to crush the British Expeditionary Force at Dunkirk lay in Hitler's decision to halt the attack of German armoured divisions.

R.A.N. may buy Sea-Gnat fighter

A sea version of the supersonic Folland Gnat jet interceptor-fighter may be bought by the R.A.N. for use on aircraft carriers, says the London "Daily Telegraph."

The Gnat has a powerful new Bristol Orpheus turbo-jet engine, and costs about £stg.5,000.

Being small, the Gnat can fit inside an aircraft carrier without folded wings which cuts out costly wing-folding mechanism.

It requires less ground crew and space than the normal fighter and can be built five times as fast as the normal jet at one-third of the price.

Having exceptional speed and climbing power, experts say that the Gnat would meet the R.A.N.'s need for a protective day fighter.

New Commander of U.S. Seventh Fleet

Rear-Admiral Stuart Ingersoll will be assigned to the command of the U.S. Seventh Fleet, now protecting Formosa, President Eisenhower announced on September 7.

Admiral Ingersoll, now Chief of Staff to the Commander-in-Chief of the U.S. Atlantic Fleet, will become Vice-Admiral and will take over from Vice-Admiral A. M. Pride.

H.M.S. Vanguard goes to the Reserve

H.M.S. *Vanguard*, the only British battleship in commission, is to be placed in reserve.

An Admiralty announcement says that the *Vanguard* will be maintained in a state of readiness for active service with minimum of delay.

Part of the manpower released will be used for commissioning guided weapons trial ships and part for retaining in commission certain small ships.

R.A.N. seeks 1000 recruits in U.K.

The Royal Australian Navy is trying to recruit 1,000 men from Britain.

The second member of the Naval Board (Commodore J. C. Morrow) announced this on August 30.

He added that the R.A.N. would seek the British recruits in conjunction with a migration scheme.

This would allow the recruits to bring their wives and families to Australia.

Commodore Morrow said he thought high wages outside the Services were affecting recruiting.

NAVY PILOTS DESTROY RUNAWAY AIRCRAFT

TWO ROYAL NAVY pilots from the Naval Air Station at Nowra, N.S.W., shot down a pilotless Auster aircraft into the sea off Broken Bay in what must rank as one of the strangest incidents in aviation history.

The Auster took off from Bankstown airfield, without a pilot, after the pilot had started the motor by swinging the propeller. It nearly ran him down as it gathered speed along the runway. It climbed into the air and began circling the airfield, gaining height.

For nearly three hours the pilotless plane circled Sydney and its suburbs then drifted out to sea.

The pilots who shot down the runaway Auster are Lieutenant J. R. T. Bluett, and Lieutenant P. F. McNay. Both are on loan from the R.N. to the R.A.N. Fleet Air Arm.

They were ordered up from Nowra Air Station in their Sea Furies to shoot the Auster down into the sea.

They sighted the Auster at 10,000 feet about seven miles east of Broken Bay. Lieutenant McNay made a sweep past the Auster to make sure nobody was in the aircraft. He then attacked from astern with a short burst. Lieutenant Bluett followed with an attack beam on with all guns. The Auster burst into flames and spiralled into the sea, Lieutenant McNay following it down with short bursts.

THE VICTORIA CROSS

By "Taffrail"

INSTITUTED by Royal Warrant on January 20, 1856, as a result of the war in the Crimea, the Victoria Cross was for a long time unique among British decorations as being the only one which could be awarded alike to officers and men of the fighting services for, as the original Warrant ordained —"some signal act of valour or devotion to their country" in the presence of the enemy.

It is still the most highly coveted of all decorations and medals, and only 1344 Crosses and three bars, amounting in all to 1347 awards, have been bestowed in the 98 years of its existence. Of this total 118 Crosses have been won by the Royal Navy, Royal Marines, R.N.R. and R.N.V.R.; 865 by the Army; 31 by the Royal Flying Corps and Royal Air Force; 87 by the Australian Forces; 79 by Canada; 21 by New Zealand; 28 by South Africa; one each by Newfoundland, Fiji and the King's African Rifles; 111 by the Indian Army; and four by civilians. Of the 1347 awards, 291 were made posthumously, the last two for Korea.

Queen Victoria took a keen interest in the Cross, and it is said that the Prince Consort was largely responsible for the design and the inexpensive metal used, originally bronze from a Russian gun captured by Farrier-Sergeant James Atkinson, R.A., at Sebastopol; but later from a gun taken from the Chinese. It was in the Crimea, however, that the idea of the V.C. originated, and in a letter of December 13, 1855, to his newspaper, William Howard Russell, correspondent to *The Times*, pointed out the need for such a distinction, and added that it was hoped it would bear the name of the Queen, "with the significance of whose Royal *praenomen* it would so thoroughly harmonise."

The first distribution of the Cross was made in Hyde Park on June 26, 1857, when Queen Victoria personally decorated 61 recipients—14 officers and men of the Royal Navy, and 47 officers and soldiers of the Army. According to a contemporary account troops were on parade, and a large crowd had assembled when Her Majesty arrived for the ceremony. She was on horseback, accompanied by the Prince Consort, the Prince of Wales, Officers of the Royal Household and A.D.C.s, and wore what was described as military dress, consisting of a scarlet tunic, gold-braided with a gold embroidered sash over one shoulder and a band of crepe on the left arm; a dark blue skirt; and a round black beaver hat with a gilt band and red and white plume. As each name was called the Cross was handed to the Queen, who fastened it to the left breast of the recipient's tunic. Commander Henry James Raby, who had won his V.C. for gallantry at Sebastopol in June, 1855, was the first officer actually to be decorated. The story may be apocryphal, but it was said that Her Majesty pinned the Cross right through his coat and skin and that the gallant sailor did not blench!

The first V.C. actually earned was that awarded to Mate C. D. Lucas, R.N., of H.M.S. *Hecla* for throwing overboard a live shell with a burning fuse which had fallen on board his ship during the bombardment of Bomarsund, in the Baltic, in June, 1854. Promoted to Lieutenant for the same deed, Lucas later rose to the rank of Rear-Admiral.

The name, rank and unit of the recipient are always engraved on the back of the clasp from which the decoration hangs from its ribbon. The date of the action appears on the reverse of the Cross itself. For some reason that is unknown the ribbon was originally blue for the Navy and a deep crimson for the Army; but on the establishment of the Royal Air Force as a separate Service in the First World War, the crimson ribbon was adopted for all recipients.

To avoid confusion with other ribbons of similar colour when they alone were worn in undress, it was laid down that that of the V.C. —worn *before* all other Orders, Decorations and Medals — should bear a small replica of the Cross.

From the date of its institution a bar attached to the ribbon could be granted to a holder of the V.C. for a second act of gallantry again meriting the award of the Cross, and in this case a second miniature is now worn on the ribbon in undress.

Only three bars have ever been bestowed—to Captain A. Martin Leake, who received the V.C. in South Africa in 1902 and a bar for gallantry in France in 1914; to Captain N. G. Chevasse, awarded the Cross for bravery in France in August, 1916, and a posthumous bar for gallantry in Belgium between July 31 and August 2, 1917; to Second Lieutenant C. H. Upham, of the New Zealand Military Forces, for bravery in Crete in May, 1941, and again in the Western Dessert in July, 1942.

The original Warrant laid down that recipients of the V.C. below the rank of commissioned officers received an increase in pension of £10 a year. In 1898 the sum was increased to £50 a year in cases of real need, and in 1921 to £75. To "preserve pure this most honourable distinction" it was ordained in 1856 that any holder of the V.C. "convicted of treason, cowardice, felony, or any infamous crime, or if he be accused of any such offence and doth not after a reasonable time surrender himself to be tried for the same, his name shall forthwith be erased . . ." from the list of recipients. There have been eight such forfeitures since the V.C. was instituted, the last in 1908. Among these was one midshipman who had won his decoration in the Crimea.

In 1857, during the Indian Mutiny, European officers and men of the East India Company's Service became eligible, while a year later the award was extended to four civilians who had distinguished themselves in the outbreak, the only cases when it has ever been bestowed upon anyone outside the Services. In 1858, too, it was ordained that the V.C. might be conferred for individual cases of conspicuous courage and bravery *not* necessarily before the enemy "such as the occurrence of a fire on board ship, or the foundering of a vessel at sea, or under any other circumstances in which through the courage and devotion displayed, life or public property may be saved." Under this ruling the Cross has only been conferred six times; to Private Timothy O'Hea of the Rifle Brigade for gallantry for helping to extinguish a fire in an ammunition railway car in Canada in 1866; and upon a surgeon and four privates of the 24th Foot for bravery in saving the lives of companions in a storm at sea in the Andaman Islands in May, 1867.

In 1881 the qualification was once more confined to "conspicuous bravery or devotion to the country in the presence of the enemy," while in the same year chaplains, and officers and men of the auxiliary and reserve forces, were also declared eligible. Those of the Colonial Forces had been able to qualify in 1867; but it was not until 1912 that a similar extension to native officers and men of the Indian Army was made by King George V.

One important innovation came in 1902, when King Edward VII issued an order that the V.C.s earned by those who had been killed or died before its bestowal should be delivered to the relatives. Previous to this the names were mentioned in the *Gazette*, but the Cross itself was not conferred. The order was made retrospective, so that the surviving relatives of those who had won it so long before as in the Crimean War or the Indian Mutiny received the coveted token.

During the last war, personnel of the Merchant Navy serving under Naval, Military or Air Force authority, or who in the course of their duty became subject to enemy action, became eligible, as were women of the three fighting services, and matrons, nursing sisters, nurses and staff nurses, together with members of nursing or other services regularly or temporarily unde rthe orders, direction or supervision of the Navy, Army or Air Force. No woman has received the V.C. up to date.

If any unit is engaged in an action of outstanding gallantry (for instance, the blocking of Zeebrugge on April 23, 1918), recipients for the Cross may be chosen by ballot from among the whol- number engaged. If fewer than 100 persons are present, one officer may be chosen by the officers; one warrant officer, petty officer or N.C.O. by them; and one seaman, marine, soldier or airman by them. With any number between 100 and 200 present the number of seamen, soldiers, etc., selected shall be two. If the number present is more than 200, the case is specially considered by the Admiralty, War Office or Air Ministry. In all cases the ballot is secret, and the fact that a man has taken part in a ballot is noted on his service certificate.

Three cases have occurred of the V.C. being bestowed upon father and son. Lieutenant (later Field Marshall, Earl) Roberts, was awarded the decoration in 1858 during the Indian Mutiny, and his son, Lieutenant the Hon. F. H. S. Roberts, of the King's Royal Rifle Corps, in the South African War, at the battle of Colenso, Natal, on December 15, 1899.

Captain W. N. Congreve, of the Rifle Brigade, was awarded the V.C. for gallantry on the same occasion at the battle of Colenso, and his son, Brevet Major W. la Tt. Congreve, also of the Rifle Brigade, for bravery in France in July, 1916.

Major C. J. S. Gough was awarded the Cross for bravery during the Indian Mutiny on four occasions in 1857-58. His son, Captain and Brevet Major J. E. Gough, of the Rifle Brigade, received it for gallantry in Somaliland in April, 1903.

There are two cases of the Victoria Cross being bestowed upon brothers—Major C. J. S. Gough, already mentioned, and his brother Lieutenant H. H. Gough, also for gallantry during the Indian Mutiny.

Continued on page 31

SCIENCE IS PROBING THE MYSTERIES OF THE OCEAN DEPTHS

By *Martin Chisholm*

ANYTHING," once said an experienced marine biologist to me, "absolutely anything can come out of the sea. I don't think I should be surpised whatever turned up." Not long after that conversation there turned up off the coast of Madagascar a fish which is known to science as the coelacanth, or "hollow spine," a creature thought, until a few years ago, to have been extinct for 30 million years. It will take a long time before experts are able to unravel all the secrets that this strange creature has to tell, secrets which go back to the incredibly dim past when life first began to appear on the earth.

But the finding of this oldest of fishes, however great its interest and importance, is only one highlight in the story of marine research. Living comfortably on dry land, or travelling the sea in comparative comfort in ships, one is apt to forget that over two-thirds of our whole earth is covered by water, and after deducting the comparatively shallow areas near the shore and the scattered banks and shoals, half of the world has a covering of water miles deep which has lain in utter darkness since the beginning of time. The abyss of the ocean holds secrets some of which we are only just beginning to glimpse.

It is only comparatively recently, for instance, that science has begun to establish with confidence the depths of the open ocean.

Depths of water are only one of the hundreds of problems connected with the ocean that modern science is setting out to solve. There is, for instance, the question of the composition of the sea bed, the depth of the deposits formed over millions of years by the bodies of countless millions of tiny dead sea creatures, and the nature and thickness of the rocks that underlie that deposit. Then there is the temperature of the ocean bottom.

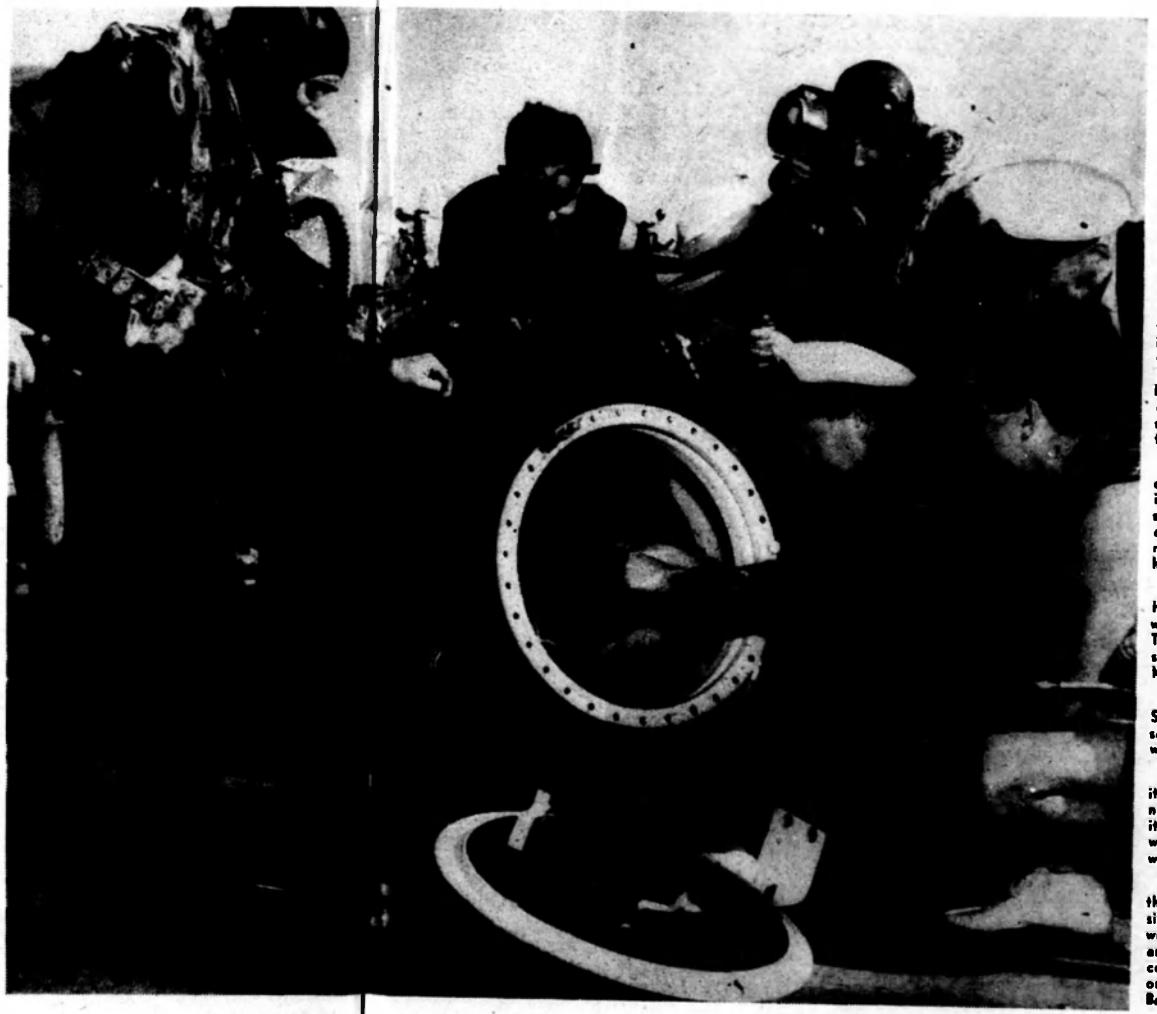
Modern equipment is beginning to throw more light on all these things. Small depth-charges, for instance, are slung below a survey ship and exploded. The echoes are recorded. One echo comes back from the top of the sediment layer and another from the rock floor below the sediment. A comparison of the recordings reveals the thickness of the layer of sediment. Other readings are also taken to find the time of travel of sound of the explosion horizontally through the rock floor. Since the rate of travel varies with the density of the material that is being traversed it is possible from these readings to form some picture of the types of rock of which the foundations of the ocean are composed. Other apparatus can bring to the surface samples of the bottom deposits as much as 70 ft. below the surface of the sea-bed.

At one time, it was believed that there was a limit of depth below which no life could exist. To-day we know differently. The Danish Galatea expedition, in 1951, succeeded in getting a grab down to a depth of six miles in the Pacific, and among the stones and clay it brought back on deck were living things, a white anemone, some clams and some sea cucumbers. That was not the whole of the treasure, for a meticulous examination of the haul revealed that there were bacteria, and despite the tremendous change in pressure which the bacteria had gone through in coming to the surface, it was possible to put them into a pressure chamber and get them to go on reproducing! This discovery may one day have important sequels in the treatment of disease.

But life, even at the greatest depths, ultimately depends on the

Continued on page 31

THESE FROGMEN FIND "DOWNSTAIRS" IN SYDNEY HARBOUR AN UNLOVELY PLACE . . .



Royal Australian Navy shallow-water frogmen (shown here receiving instruction in disarming a contact mine) have come to know the bed of Sydney Harbour as well as most of us know the streets of our home town, and their view is that the Harbour — on the surface probably the most beautiful in the world — is just a junk-heap below.

For 167 years, since the First Fleet arrived, ships have been dumping rubbish on to the Harbour floor. The result, according to Lieutenant J. Homewood, Chief of the R.A.N.'s diving school at H.M.A.S. Rushcutter, is hills of bottles and rusty tins, scraps of metal, boxes, and tangles of wire and rope.

"Sharks aren't the worry of a diver who goes down in Sydney Harbour," he says. "It's the broken glass and jagged metal that can rip open his unprotected hands."

Worst junk heaps on the Harbour floor are around wharves and anchorages. The greatest single one, he says, is in Shell Cove, off Mosman.

The cleanest part is the Sow and Pigs, where the sand is white and the water clear.

"But for the most part, it's a lousy Harbour underneath — people are lucky it's covered with all that water," Lieutenant Homewood comments.

As part of their training, the frogmen are progressively blowing apart the wreck of the "Centennial," an iron ship sunk after a collision in 1889. It rests on the bottom of Taylor Bay, near Bradley's Head.

MARRIED QUARTERS

SITUATED ABOUT five miles from Nowra, a flourishing little town is "Married Quarters" of the R.A.N. Air Station, 400 feet above sea level, in the midst of glorious countryside and beautiful scenery.

At Jervis Bay and Huskisson are perfect beaches for children, Huskisson being but 12 miles distant and daily buses pass Married Quarters to enable families to enjoy summer picnics and bathing there.

Married Quarters comprises 180 houses in occupation and 18 more in course of erection. Most of these houses are of the modern three-bedroom type—detached and with their own gardens. By present day standards rents are low. All houses have electricity, mains water and drainage. They are maintained by the Navy—all external painting is free and structural and mechanical defects are rectified without charge to the tenant. First class roads have been provided and excellent street lighting.

There is a regular bus service to Nowra, but for the majority of the housewife's needs tradesmen from the town call at Married Quarters, to augment the services of "the Shop," which combines general merchandise with a Post Office, Commonwealth Savings Bank, and a petrol pump for the not inconsiderable number of families who own motor cars.

Two churches on the Air Station hold regular services for families. A school is nearly finished building, and is of the most up-to-date type. The station's cinema is open to families for excellent nightly programmes, with Saturday and Sunday matinees for children. In the summer a fine swimming pool is open for all to enjoy, as is the tennis court (to cope with the ever increasing number of tennis enthusiasts an additional court is being prepared in Married Quarters).

Playing Fields are available to the boys for football and cricket, and boxing classes have been formed. A "Married Quarters Troop" of Brownies has been organised and no doubt it will not be long before the Cubs are drilling in competition with their sisters.

Perhaps the most important amenity of all, from the point of view of the families is the children's play centre, at present a modest building but later to be extended, with its playground—sandpit, slide, slippery dip, and those things which gladden the hearts of children. The Play Centre is under the direction of the Married Quarters Welfare Association which, with its General Committee and sub-committee, has organised such activities as:

A Kindergarten, for the "under fives" in the mornings.

Doctors' Surgeries, attended by Nowra doctors three times a week.

Mothers and Babies Club, where mothers can weigh their babies, exchange ideas on these citizens of tomorrow, and enjoy a cup of tea.

Handicraft classes in the evenings on basket-making, dress-making, cookery, etc.

Meetings and Social events for the grown-ups.

Parties for the children.

A Sunday School.

All these activities are self-supporting and are run voluntarily by Married Quarters personnel, under the guidance of the Married Quarters Welfare Association, the patron of which is Mrs. P. E. Fanshawe, wife of the Captain of H.M.A.S. *Albatross*.

In common with any other community, Married Quarters families have their problems and it is gratifying to record that although they are drawn from every State in the Commonwealth, as well as the United Kingdom, a true spirit of comradeship exists which ensures a helping hand to all in time of trouble. For instance, should a mother fall sick or for any other reason find it difficult to carry out her household duties, a home help scheme comes into operations. Volunteers visit her to see that her house and family are cared for until she is able to take un the reins again. It is truly a spirit of which any community should be proud.

Mrs. W. J. O'Connor holds her daughter, Kerry, who, with Elizabeth Grey, tries to find out how her daddy works the movie projector at the Nowra Naval Air Station play centre.

NEW SHAW SAVILL FREIGHTER

THE TWIN-SCREW motorship *Cretic*, latest addition to the Shaw Savill fleet, reached Sydney in August, commanded by Captain L. J. Hopkins.

She was launched on January 25 this year.

Cretic was constructed under Lloyd's special survey for a classification 100 A1. She has a raked stem and the stern is cruiser type with a semi balanced double plate rudder. Electric welding was used extensively in the construction of the hull.

The ship will carry refrigerated and general cargo between Australia and the United Kingdom. Considerable space has also been set aside for the carriage of chilled meat. Cargo spaces consist of six holds, four of which are insulated. Mechanical ventilation incorporating air re-circulating is arranged in all cargo spaces.

Winches are electrically driven. Derricks have five, seven and 12 ton lifts. In addition there are derricks for heavy lifts of 25 tons and 70 tons.

Accommodation for the officers and crew is of a high standard, mechanically ventilated and heated. Galley and pantry equipment is mostly electrical.

The machinery consists of twin screw propelling machinery of the "Wallsend - Doxford" balanced type opposed piston reversable oil engines, the essential auxiliary machinery for their operation, and such other auxiliaries as are usually supplied by the engine builders, together with the owner's electric generating plant of the diesel engine-driven type.

Electric power at 220 volts D.C. is supplied by two six-cylinder and two four-cylinder diesel driven generators and one diesel driven emergency generator.

U.K.'s ATOM WEAPONS

The British Information Service has stated that atomic weapons developed by Britain are thought to have no parallel in other countries.

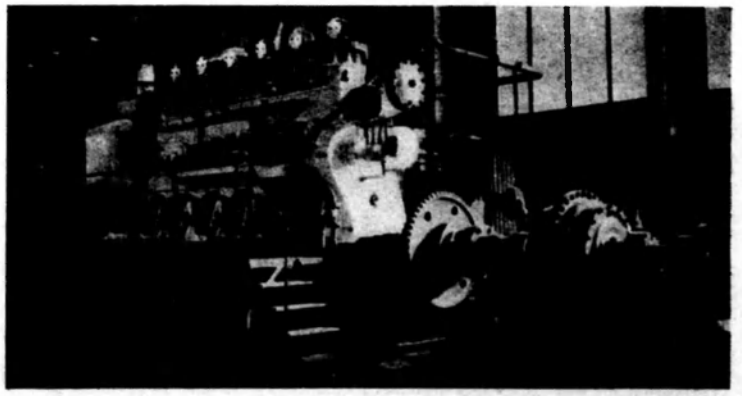
The statement specifically referred to Britain's "atomic warheads, her new trigger device, her air-to-air, ship-to-ship, ground-to-ground, and air-to-ground missiles."

"British developments in nuclear research have followed somewhat different lines from those of the United States," the statement added.

The Australian Minister for Supply, Mr. H. Beale, has announced that Australia and Britain have agreed in principle to establish a permanent proving ground for atomic weapons in the South Australian desert.

He said work on the new site, at Maralinga, would begin soon.

The weapon tests which he announced in February would be held at the new site later this year. These tests, however, would not be atomic bomb explosions but detonations of high explosive charges to test techniques relating to atomic weapons, Mr. Beale added.



The first Australian Polar diesel engine manufactured in Australia was shown to visitors at the State Dockyard this month.

MARITIME NEWS OF THE WORLD

From our Correspondents in LONDON and NEW YORK

By AIR MAIL

Cleared by Security: gets commission

A U.S. coastguard officer candidate, whose commission had been withheld because his mother allegedly associated with organisations listed as subversive by the Justice Department, has been cleared for security.

The man, Norton Pierre Gaston, 23, has now been granted a commission as an ensign.

His mother, Mrs. Jeanne Grisez, told a coastguard inquiry she was no longer connected with the organisations and had not known they were regarded as subversive.

Fire outbreak on Australian collier

Fire broke out in two hatches of the unlucky 5,033 ton collier *River Burnett* at South Wharf, Melbourne, on September 12.

Firemen poured thousands of gallons of foam on to blazing coal in the ship's hatches and quickly brought the fire under control.

The fire was first noticed at 4.30 a.m. Blinding smoke billowed from under the hatch covers of No. 4 and 5 holds as firemen, wearing respirators, attacked the flames.

The *River Burnett* was holed on Corsair Rock in Port Phillip Bay on July 17, and beached at Mt. Eliza. She was salvaged and refloated, and made port under her steam.

Wharflabourers who unloaded coal from the collier got an extra £5 a day danger money.

The Port Board of Reference, Mr. J. F. O'Neill, ruled that they should get 12/6 an hour over their normal rate of 9/10.

For an eight-hour working day they were paid £8/18/8.

The 400 tons of coal from Callide (Queensland) left in the collier's hold when she was salvaged after running aground in Port Phillip, was a risk to wharfmen because of the long time it had been in the hold, Mr. O'Neill said.

New cargo ship for Burns, Philp

Burns, Philp and Co. Ltd., of Sydney, has ordered a new 3,700 ton cargo ship from a Norwegian shipyard.

The ship is for trading in the South Pacific Islands.

This is the first Australian shipbuilding contract secured by Norway. The ship will probably be completed by the end of next year.

A spokesman for Burns, Philp and Co. Ltd. said in Sydney that the new ship probably would be used on the company's New Guinea run.

It will be named *Montaro*.

British base planned near South Pole

The British Commonwealth Trans-Anarctic Expedition, which will set out in 1957, will establish its first depot in Vahsel Bay, in the Weddell Sea, about 300 miles from the South Pole.

It will be named Shackleton Base, after Sir Ernest Shackleton, the Polar explorer.

The site was chosen because it is the nearest point to the Pole than can be reached by sea.

At Shackleton Base, eight men, who will leave London in November, will erect buildings to house supplies and a meteorological station.

These men will be relieved, after being there for more than a year, when the main expedition arrives.

The expedition's official photographer, Mr. George Lowe, has been busy trying to get members of the expedition "colour-conscious."

"As I am the photographer, I want them to wear clothers that will easily be seen in photographs," he said.

"We have chosen eleven brilliant colours — including lavender and cherry red."

Reaches safety after 300-mile tow

The crippled British freighter *Argobeam* (7,133 tons) reached a sheltered anchorage in Broad Bay, north of Stornoway on August 25 after two tugs had towed her 300 miles in the North Atlantic.

The *Argobeam* was listing heavily, with her engineroom flooded.

Early on August 19 she radioed that her engineroom was ablaze. The Swedish liner *Kungsholm* took off 29 of the crew, but Captain George Watson and his chief officer remained aboard for another 60 hours.

They boarded the tug which took the ship in tow.

Ship revokes mutiny call

The Swedish steamer *Dorotea* reported a mutiny aboard on August 26, but the following day radioed: "Revoke distress call. Everything in order now."

The *Dorotea* (1,870 tons) was in mid-Atlantic, heading from Brazil to Capetown.

Earlier it signalled: "Mutiny on board. Captain locked in cabin and operator speaking. Require assistance."

U.S. plans for polar expedition

The U.S. expedition to the Antarctic, beginning this month, plans to transport 30 tons of supplies for each man.

This compares with the seven tons shipped abroad for each U.S. soldier in the war, says the "New York Times."

The tonnage figure may best illustrate the size of the job the United States has undertaken in the International Geophysical Year, 1957-58, it says.

Seven U.S. ships engaged will carry 81 officers and 1,013 enlisted men. The party which will winter in the Antarctic will comprise 120 officers and men.

Navy ships and aircraft will evacuate them and their equipment in January, 1959, and take them back to the United States.

Russians will go to Antarctic

Russia will send a scientific expedition to the Antarctic in November, 1957, as part of her participation in the 1957-58 Geophysical Year.

The official Soviet newsagency, Tass, which announced this recently, said that the Soviet Academy of Sciences would organise the expedition which would be led by Dr. N. M. Somov.

She's a Big Sister to them all

By a "Daily Mirror" reporter

A HOMESICK sailor, a lonely wife, sick children, and unpaid bills, are among the myriads of problems that daily face Mrs. Joan Elliott, newly appointed Naval Welfare Officer in N.S.W.

The appointment was the first of its kind to be made by the Naval Board, and Mrs. Elliott holds the unique position of being the first civilian in the job.

Previously, Naval Welfare work was in the hands of a W.R.A.N.S. Petty Officer, or trained social workers employed by the R.A.N. Relief Trust Service.

Mrs. Elliott holds a diploma of Social Studies from Sydney University, is a graduate of the Australian Institute of Hospital Almoners, and took a post-graduate course in the United States at the University of Southern California.

"Although I've only been in the job three months, I already feel as if I'm part of the Navy," she explained.

"My mornings are spent at my desk, interviewing, and I devote the afternoons to home visits. Life is busy for me, as there are always queries and problems cropping up, and I should say we average about 100 cases a month."

Port Chaplain, J. O. Were, at Naval Headquarters, Potts Point, and Mrs. Elliott, find they are confronted with similar problems, and so they work very closely together.

"He helps me and I help him whenever I can; we feel we have the problems of sailors and their families well in control, so that no case or trouble will go unheeded," she said.

However, she added that although many wives were aware there was a welfare service for their husbands at sea, they didn't realise that the same service was open to them.

"Perhaps their problems are the greatest," she said. "They stay at home, their husbands go to sea, and life becomes very lonely. They often become ill, financially embarrassed, their children are sick, or they're worried about their husbands.

"We welcome their enquiries, and are only too glad to help them out of difficulties.

"We can arrange hospitalisation, someone to look after the children, iron out their financial troubles and set their minds at rest about problems concerning their husbands."

Mrs. Elliott added that there was a club for sailors' wives, called "The Friendly Union of Sailors' Wives," which meets on the first Thursday of every month at 2.45 p.m. at Farmer's Restaurant, Sydney.

"All wives are very welcome," she said, "and if they are interested in coming along to our meetings, they can contact me at BX 4477."

The Navy finds that housing problems are perhaps the biggest worry on their list, and also the main cause of unhappiness and hardship.

However, a Housing Estate has been started at East Hills with plans to erect 100 homes. Already fifty have been built.

An example of the type of problem dealt with by the Naval Welfare Officer is illustrated in the case of an expectant mother, whose husband was at sea and who lived alone with her children.

"We arrange to have someone look after her children, and also managed to have her taken to hospital, as a waiting patient' one week before her baby was due.

"This relieved her mind of worry, also her husband knew that his wife and children were being well cared for," she said.

The Welfare Office also arranges legal assistance, at reduced rates, for any of their members who require it.

"Whatever the problem may be, we are confident that we can smooth things out. After all, that's what we're there for," she added.

THE LARGEST WARSHIP AFLOAT

By Oscar Parkes, Ass.I.N.A.— in London

NEARLY 120 FEET above the fitting out wharf at the Newport News Shipbuilding Yard towers the bridge of the gigantic carrier *Forrestal*, now only a few weeks from the day when she will steam out down the James River into Chesapeake Bay and the broad waters of the Atlantic—the greatest carrier afloat.

Laid down on July 14, 1952, the ship — named after the late James V. Forrestal, wartime Secretary of Defence—was floated out of dock on December 11 last and should be completed towards the end of this year. With an overall length of 1036 feet and 990 feet between perpendiculars, a breadth at the main deck of 129 feet and 252 feet across the flight deck amidships, she has a standard displacement of 59,650 tons which reaches over 70,000 tons when fully loaded.

As experience has shown that centreline elevators interfered with operations and were hazardous, these have been eliminated and the four catapults will be served by deck-edge lifts, three on the starboard side and one on the port. These measure 62 by 52 feet, and will be able to handle 30-ton aircraft. Each lift weighs 166 tons which was beyond the capacity of the yard cranes, so they were built separately on a vacant slip, launched, and installed with the assistance of a 150-ton floating Navy crane.

British practice has been followed both in carrying up the side plating to the flight deck at the bows — which makes for greater strength and sea-worthiness—also as regards the flight deck which has been made the strength deck instead of the hangar deck as in the "Midway" and "Essex" classes. This deck is of 1½ inch plating and from descriptions of the ship appears to be her only armoured deck, although this is most unlikely.

The deck plan is extraordinary, showing wide overhangs amidships carried out to flush with the side elevators. Aircraft will land on the starboard quarter with an alighting angle of 10.5 degrees along a line drawn to the forward edge of the port overhang, and arresting gear will bring them up short of the two catapults placed on this overhang. These deck side extensions were first proposed for the CVA 58, *United States*, which was cancelled before the *Forrestal* was laid down at a time when Congress jibbed against the immense cost of such a ship, which was considered unnecessary in view of the then estimated performance of land-based aircraft.

Over 900 aircraft will be carried consisting of three jet types, the Douglas Skywarrior, Skyray and Fury with one propeller-driven type, the Skyraider. The Warrior is the largest and most powerful plane ever built for carrier use, capable of 600-700 m.p.h. and able to fly at 40,000 feet for high level bombing or at low levels for mine-laying. Its large internal bomb-bay can accommodate nuclear or any of a large variety of bombs, rockets or torpedoes now used aboard carriers.

The little Skyray is a fighter which has attained 752.9 m.p.h. and can climb to 40,000 feet from the deck in less than five minutes. The Fury can fly at over 45,000 feet and attain more than 650 m.p.h. The single engine Skyraider, the work-horse of the flying Navy, can be converted rapidly on board for a surprising array of jobs. Primarily an attack bomber, it can be used as a long range bomber, troop transport, little ambulance, cargo carrier, night bomber or anti-submarine attack plane.

In the matter of armament, it will be seen that the *Forerstal* mounts only eight guns in place of the array of some scores of assorted medium and smaller weapons hitherto carried in the CVs. These eight 5-inch are fully automatic and will provide greater fire power than in any other carrier. They are distributed in single gun houses on sponsons fore and aft, and coupled to an electronic fire-control system to take care of any aircraft which may get through the *Forrestal's* air screen.

Turbines of over 200,000 h.p., driving four five-bladed screws, will give a speed of over 30 knots. Steam will be generated in eight boilers, and her course controlled by three rudders, two of which weigh 45 tons each.

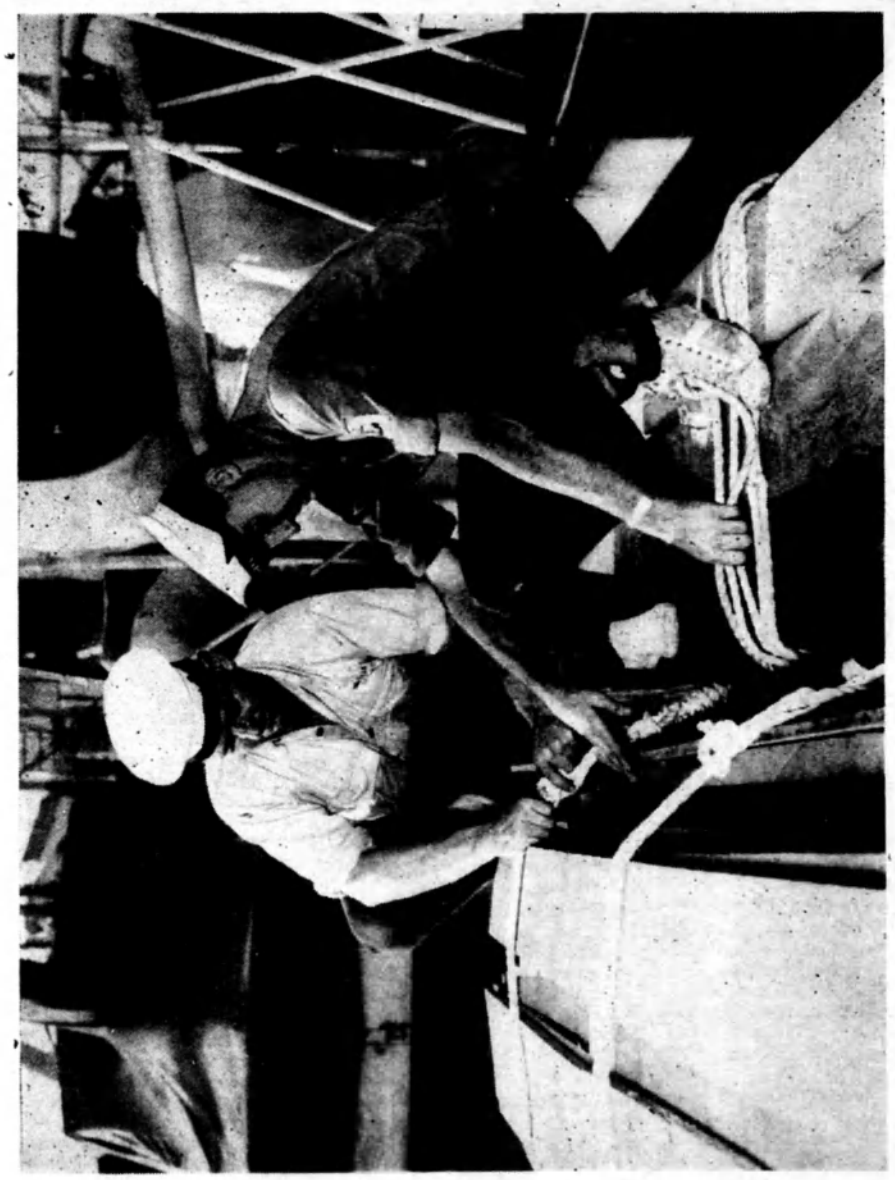
The island placed on the starboard deck wing is as high as a ten storey building and weighs 140 tons. Originally it was 22 feet farther inboard and its new siting will cost nearly £400,000. This expedient to secure more room for aircraft will have to be offset by transferring some 3000 tons to the port side—probably oil fuel.

In order to clear the Brooklyn Bridge to get to the Navy Yard it will be necessary for the masts to be hinged to lie across the deck—the forward one reaches up 187 feet which is 60 feet too high to clear the bridge.

The four steam catapults are U.S.N. editions of the Mitchell invention which was demonstrated aboard H.M.S. *Perseus* in its experimental form when she went over to the States. Operating pressure in the *Forrestal* is 550 pounds per square inch and its launching power is estimated at between five and six times greater than hydraulic models.

Hydraulic arresting gear will pull up a 30-ton jet plane travelling at 100 m.p.h. in 150 feet.

Sisters to the *Forrestal* are the *Saratoga*, building at the New York Navy Yard, *Ranger* at Newport News, CVA 62 — to be named *Independence* and also to be built at New York—and a fifth to be named *Congress*, the building of which has just been authorised. —*From the "Sea Cadet," London.*



Able Seaman W. Gill and Leading Seaman D. Petrass lash down some of the nine tons of timber which H.M.A.S. Warrego took with her when she left Sydney late last month for a survey of the Monte Bello Islands, in preparation for the atomic trials next April. The timber will be used for constructing marker beacons.

UNEXPECTED DIAMOND

By J. H. Adams

IF I ever catch Doc Ramsay napping (remarked Captain George Mansley), I'll swallow the anchor and go chicken-farming.

And the only ways I like chicken are roasted and casserole.

We were on our way from Auckland to Sydney in the liner *Camberwell* when I received a radio message from the New Zealand police. The famous Stanwyck Diamond, worth enough to put me on easy street for life, had been stolen.

The four thieves and the diamond probably were on my ship, they said, giving me descriptions of the men and asking me to have a look-see among passengers and crew.

The first thing I did was to call in Ramsey, the ship's surgeon, and show him the message. The dour old pill-roller snapped his square jaws together and studied it.

"Well, they won't be on this ship," he said promptly. "But the diamond may be."

"It's a wonder to me you ever gave up Macquarie Street," I commented. "You must've been a little marvel at diagnosis."

"The salt tang of the sea's better than a consulting room full of ailments. Anyhow, if you didn't have me around, you'd be in strife every voyage."

He was right. He solved my trickiest problems with ease. And, believe me, I collected some in command of a liner like the *Camberwell*. I poured him another whisky, squirted in a mere thimbleful of soda, and leaned back in my chair to listen to his theory.

Life was reasonably pleasant. We were legging it across the Tasman at a comfortable 20 knots and the gentle roll of the ship regularly framed the moon-flecked sea in my doorway. I can't say that I'd have felt so contented if the old Doc hadn't come to my rescue as usual. After he had drained his lips in his own unhurried way, he explained:

"From this message, it seems to me the New Zealand police have the jewel thieves pretty well taped."

"A good reason why they'd be anxious to skip out of the country."

He shook his head.

"Nope. As soon as they moved towards ship or plane, the police would nab them. They've more than likely use some lesser-known associate to hide the diamond on the ship."

"How the deuce could they?"

Ramsay rose and stretched. "Can't say at present. I could think of several ways. I'll sleep on it. Good-night, Cap."

I watched him walk down the ladder to the promenade deck, towards his cabin, a man deep in thought.

I was shaving next morning when he came up in his pyjamas and dressing-gown. His thinning grey hair was all askew and stubble on his chin showed that he had been too busy to shave.

"Shoot this off to Sydney," he instructed, handing me a pencilled note. It asked the police to meet the *Camberwell* at the Heads and look for a launch that would follow the ship. Because of a late start, we were due to arrive at night.

"Crazy idea!" I snorted when I read it. For once Doc was off the beam and I said so. "We won't have anything to tell them."

He shrugged his shoulders and muttered something about what I could do if I didn't want to follow his prescription. So I sent the message.

The evening we arrived inside Sydney Heads I saw a launch cruising around. I found out afterwards that there were two — one acting stealthily without lights.

I dropped anchor and under Doc's orders threw a rope ladder over the side. Soon after, Doc brought a detective to my cabin. Doc had a self-satisfied smirk on his face, like an ancient tomcat that had successfully stalked a fleet bird.

We followed the launch as you advised," said the detective. I could see that he was as much in the dark as I. "Some darn fool scattered some ashes over the side. What's going on?"

Mention of ashes stirred a guilty chord in my conscience.

A strange man had approached me in an Auckland cafe on sailing day. He had asked me to scatter the ashes of a dead friend over the waters just inside Sydney Harbour. The name of the man and his dying request were in a note attached to the box of ashes. His story was plausible and I granted his request. And I had forgotten!

I stepped over to my desk and opened one of the drawers. The box of ashes was missing.

"I took them," Dr. Ramsay said quietly. "As soon as we received the wireless message about the theft, your story of the stranger and the ashes became significant. The gang was making you an accomplice, Cap. They couldn't get out of New Zealand themselves so they fixed it for you to take the diamond to their friends in Sydney for disposal. Doubtless,

Continued col. 1, next page

COMMODORE MORROW APPOINTED A.D.C. TO THE QUEEN

Commodore J. C. Morrow, D.S.O., D.S.C., R.A.N., at present Second Naval Member of the Australian Commonwealth Naval Board, has been appointed a Naval aide-de-camp to the Queen.

Before assuming the appointment of Second Naval Member on January 26, 1955, Commodore Morrow was Commodore Superintendent of Training at Flinders Naval Depot, Crib Point (V.) and immediately prior to that, Captain of H.M.A.S. *Australia*.

From 1950 until 1951 he was Naval Attache at the Australian Embassy in Washington.

He had an outstanding record in the Second World War in which he commanded five different ships. Among them was H.M.A.S. *Voyager*, one of the destroyers in the famous "Scrap Iron Flotilla," which operated against the enemy with such remarkable success in the Mediterranean and other waters.

In 1924 he was awarded the Distinguished Service Order for courage, enterprise, and devotion to duty in engagements against the enemy and two years later he won the Distinguished Service Cross for leadership, skill, and devotion to duty in a surprise attack against a Japanese submarine.

Commodore Morrow graduated from the Royal Australian Naval College as a cadet-midshipman in 1922. At the graduation ceremony he was awarded the King's Medal for having, during his period of training, exhibited the most gentlemanlike bearing and good influence among his fellow cadet-midshipmen.

Captain McDonald

Captain Ian McDonald, R.A.N., a "veteran" of the second world war and the Korean war, took over the appointment on August 29 of Inspector of Naval Recruiting for the Royal Australian Navy. In addition he will be the Inspector of Naval Training and President of the Permanent Interviewing Committee. His headquarters will be at Navy Office in Melbourne.

As Inspector of Naval Recruiting he will be responsible for the efficiency of naval recruiting staffs which are in all the capital cities of Australia. He will also act as the liaison officer for the R.A.N. with the Director of Recruiting.

As Inspector of Naval Training he will visit R.A.N. establishments to ensure that the training syllabuses and methods used by the Navy are kept up-to-date and suitable for Australian conditions.

As president of the Permanent Interviewing Committee, Captain McDonald will see all future officers of the Royal Australian Navy. This committee interviews boys for entry into the Royal Australian Naval College, and young men for short service commissions as pilots and observers in the Fleet Air Arm. In addition it interviews men who want to join the R.A.N. as officers in the engineering, electrical engineering, educational, medical, and dental branches.

Captain McDonald, until recently, was the executive officer at the Royal Australian Navy air station at Nowra (N.S.W.) He was born in South Australia.

Commander Savage

Commander Robert Savage, whose promotion was announced recently, entered the R.A.N. College in 1935, where he gained his colours for rugby.

On Passing Out he became a mid-shipman on January 1, 1939, sub-lieutenant in 1940, and lieutenant in 1942.

His first ship was H.M.A.S. *Canberra*, from which, in May, 1939, he proceeded to Malta to join H.M.S. *Sussex*, in which he served till September, 1940.

He then did his courses, after which, in January, 1941, he was appointed to H.M.A.S. *Australia*. In June, 1944, he went to H.M.A.S. *Stuart* and in the following December to H.M.A.S. *Arunta*.

On October 1, 1950, while serving in the *Anzac*, he was promoted to lieutenant-commander. He served in this ship in the Korean theatre from March, 1951, to October, 1951, and then in H.M.A.S. *Condamine* (in command) from July, 1952, to April, 1953.

On relinquishing his command he was appointed to the Royal Australian Naval College.

UNEXPECTED DIAMOND — Continued

they explained their plans in an airletter."

"I'm still in a fog. We haven't got the diamond," I wailed.

"We should," Doc turned to the detective, "Did you see anything besides the ashes?"

"Only a ping-pong ball floating in the water. My mate saw one of the two blokes in the launch pick it out. He took it from him to give to his kid."

"Now you've got the Sydney end of the gang," said Dr. Ramsay. "I took a bit of a risk to get you evidence, but when I saw the ball in the centre of the ashes I guessed it would float.

"The diamond's inside, lightly wrapped in cottonwool to stop rattle. And if those were human ashes, I'm the King of Siam."

REVIEWS

"FIGHTING SHIPS," 1954-55; edited by Raymond V. B. Blackman; Sampson Low, Marston & Co., London.

At one end of the shelf is the first edition of *All the World's Fighting Ships* of 216 pages illustrated by pen-and-ink sketches by Fred T. Jane, classified by numerals and with data condensed into two or three lines of special code. Price 10/6. At the other end is this fifty-seventh edition of *Fighting Ships* running to 470 pages, containing over 2,500 photographs and plans, with a mass of individual data *in extenso* — the world's premier naval encyclopædia.

Of necessity, fresh information this year is mostly confined to the spate of small craft being acquired by the 59 separate navies, which now include Ireland, Israel, Haiti and the like — usually difficult to collect and uninteresting to illustrate.

The British section includes several 7½ in. and 10 in. blocks of carriers and cruisers which give a far better idea of the ships than the previous 5 in., the *Ark Royal*, *Eagle* and *Centaur*, the older carriers, *Vanguard* and *King George V* being shown to advantage. To many inquirers, the "Darings" and "Weapons," although illustrated with four small blocks each, present a confused mass effect which might with advantage be enlightened by elevation and plan. Again, ten photos of the "Battles" seems unduly lavish and to divide the "R" to "W" frigate conversions into four groups with seven photos, when they are indistinguishable and similar, seems unnecessary. The twenty-five new frigates are named and described, but remain unillustrated, the coastal and motor minesweepers, patrol boats and seaward defence boats are shown class by class.

The U.S. Navy covers 87 pages, in which long lists of launching and completion dates take up space which could be put to better advantage by small sketches showing the differences between the original and converted layout in the numerous escort vessels and destroyers. There are eleven photos of "Gearing" class destroyers without any pointers as to their differences, and reference to the silhouette index becomes confusing. A very good photo of the Tactical Command Ship *Northampton* shows a heavy assortment of radar aerials on the tower masts, with assorted poles and antennæ springing up here and there along her high freeboard hull. The new "Norfolk" and "Mitscher" destroyer leaders demonstrate to what an extent this type of ship has grown — the former is 5,600-7,300 tons, the latter 3,700-4,400 tons. Here again it is difficult to make out how their weapons are disposed from the photographs.

In the French section an 8 in. block presents the *Richelieu* full broadside — a splendid view of a ship which will become handsome if and when the funnel-mast ceases to be a site for numerous small and useless A.A. guns and optical range finders. A model photo shows the new *Colbert*, A.A. cruiser, and photos of the big new destroyer *Surcouf* give a good impression of this group of seventeen ships.

Some ships need sectional photos to fathom their structural confusion, and the Netherlands *De Ruyter* is an outstanding example — the fusion of fore funnel and mast with the bridgework is too interesting for relegation to a bare line elevation. A good photo of the new escort destroyer *Holland*, although belonging to an alleged anti-submarine type, is given as carrying four 4.7 in. and six 40 m.m. guns only. In the Italian section, sketch plans of the *San Giorgio* and *San Marco* re-armed, and the new large destroyers *Impetuoso* and *Indomito* are interesting, and it is noted that there are to be alterations to the funnels in these and the "Centauro" class of frigate in which the fore funnel merges into the bridgework.

Argentina still retains her battleships *Moreno* and *Rivadavia*, and Chile her *Al. Latorre*, which, with the two Soviet "Sevastopols" and the Turkish *Yavuz*, remain the sole examples of the dreadnought era in their more or less original form. Russia is credited with twelve "Sverdlovs" launched and six building, ten being operational in 1954. Fifteen names are given, but of these, several are speculative. Now that Soviet ships are doing some "showing the flag" cruises it has been possible to obtain photos of their new destroyers, and good photos illustrate two of the "Skori" class which visited Stockholm.

The foregoing touches on illustrations only, whereas the great value of "Jane" is in the text and data which set a high standard in fullness and accuracy which has been splendidly maintaine.

— O.P. *in the London "Navy."*

"Commodore Perry's Naval Expedition To The China Seas And Japan." Edited by Sydney Wallach; Macdonald London.

It was a happy idea, during this year of the centenary of Perry's entry with a squadron of American warships into Japanese waters, to re-issue in a readable form, the American commodore's narrative of his mission. It was originally a somewhat ponderous and over-detailed document, hardly conducive to easy reading. In this new edition Mr. Wallach has shorn it of much unnecessary detail and, while retaining all the essentials, has made of it an easily absorbed, though still historically valuable, book.

The Japanese isolation in the earlier years of the 19th century was virtually complete, apart from a few trading concessions to the Chinese and the Dutch. There had been earlier American efforts to break through the barrier into Japan, but none of them had much success. But in Perry, the United States had a man of great moral power and integrity, and with him in command of the expedition the Japanese hostility to all intruders was gradually broken down.

Mr. Wallach has made, of Perry's narrative, a book which should prove of considerable interest in this country. The descriptions of the mission are vivid and exciting, and the story sheds a new light on an episode that was in danger of being largely forgotten.

— P.K.K. in the London "Navy."

"To Hidden Depths," by Captain Philippe Tailliez; Kimber, London.

There is now in the French Navy an undersea research group and its Commander is Captain Philippe Tailliez, the indomitable and very human author of this book. Since he became a diver he has made 1,500 ocean descents and from time to time he has looked for treasure. In the 50 wrecks he has explored he has found crockery and curios in the hideouts of crayfish, but never, he tells us, a brass farthing in real money. On the other hand, in one single dive in the Etel he brought up 70 freshwater mussels; in the 10th there lay a black pearl and in the 65th a white and perfect orient pearl. This was luck, for people reckon to find on the average one pearl in a hundred mussels, and one in a thousand oysters. And, for the delight of the readers of this absorbing book, Captain Tailliez took a series of really wonderful photographs. He gives us the first account of the notable progress made in deep sea diving in the Bathyscaphe, from Professor Piccard's early fiasco of 60 feet to the recent record of over two and a half miles. The lowering of it provides pages of breath-taking excitement, only equalled by what happened afterwards. Here is a book for boys of all ages.

— H.B. in the London "Navy."

H.M.A.S. MELBOURNE TO BE COMMISSIONED

The Royal Australian Navy's new aircraft carrier *Melbourne*, which is approaching completion in England, will be commissioned in Vickers-Armstrong Ltd.'s dockyard at Barrow-in-Furness, Lancashire, on October 27.

Lady White, wife of the High Commissioner for Australia in the United Kingdom, Sir Thomas White, K.B.E., D.F.C., V.D., will perform the commissioning ceremony and immediately beforehand will rename the carrier, which is at present known as the *Majestic*.

The *Melbourne* will arrive in Australia about the middle of next year. She will be the most modern light fleet aircraft carrier afloat.

For Sea Cadets

What is the H-Bomb?

By *Major-General F. F. Worthington*

Canadian Civil Defence Co-ordinator

BACK IN 1945, when President Truman first announced the atomic bomb to an awe struck world, he said the new weapon tapped the source of the sun's power.

This statement was only part correct in relation to the A-bomb, but is wholly true of the A-bomb's descendant, the hydrogen bomb.

The A-bomb operates by "fission"—the splitting of large atoms into smaller ones.

The H-bomb depends for its short and tragic life on "fusion" —the building up of small atoms into larger ones.

In both cases a certain amount of matter is annihilated and in its place appears a terrific outburst of energy. The fact that matter could be converted into energy and vice versa was first expressed by Dr. Albert Einstein in the formula $E = mc^2$ (energy equals the mass times the square of the velocity of light). The splitting of a single U-235 atom is said to release 200 million electron volts of energy. The units are small and the released energy is unimpressive until it is added to that of billions of other split atoms in a nuclear reactor or an atomic bomb.

The picture of the atom usually presented to-day is that of a planetary system in which electrons (the planets) whirl about a nucleus. (the sun). The electrons carry a negative electrical charge and the nucleus has a positive charge.

The Periodic System of classifying the elements starts with the lightest element, hydrogen (a single electron revolving around a single proton) and ends with uranium, adding up to 92 elements found in nature. The thing that bothered scientists for a long time was that the atomic weights of elements did not tally with the position in the Periodic Table. It was true that they got progressively heavier from hydrogen to uranium, but the atomic weight of hydrogen was a little more than one and that of uranium was more than two and one-half times as great as it should have been if it were composed simply of electrons and protons.

It was this discrepancy which led to the discovery of the neutron, a nuclear particle of about the same weight as the proton, but without an electrical charge. Ordinary hydrogen was found to be a mixture of Hydrogen-1 (one electron and one proton) and Hydrogen-2 (one electron orbiting around a nucleus composed of one proton and one neutron). Hydrogen-2, now generally known as "Deuterium," is the kind that combines with oxygen to form "heavy water." U-238 has a nucleus of 92 protons and 146 neutrons.

The third particle in the atom, the neutron, was the one which had confused the issue and it was this same particle which proved to be the means of deliberately releasing energy from the atom.

Natural uranium was found to consist of U-238 mixed with a small amount of U-235, the latter being the only substance which would sustain a "chain reaction."

When U-235 is struck by a vagrant neutron it splits, forming two or more atoms of lighter weight and at the same time discharging surplus neutrons which go on to split more U-235 atoms that happen to be in their paths, and so on.

If the U-235 is pure and in sufficient quantity, and the neutrons run wild, the result is an atomic explosion. If natural uranium is involved, some of the neutrons are absorbed by the U-238, and after an intermediate change into neptunium, plutonium is formed — a substance unknown in nature. Plutonium, like U-235, is fissionable. The first atomic bomb, which burst over Hiroshima, was reported to have been made of U-235, the second, which devastated Nagasaki, of plutonium.

At this point the H-bomb enters. How the sun maintained its output of energy over the last three or four billion years had long puzzled scientists. If it had depended on oxygen for burning, as on earth, it would have died out in a few years; if on contraction, under the force of gravity, in only a slightly longer period.

Five hundred years ago, the alchemists were still searching for a method of converting base metals into gold. They failed, and it was concluded from their failure, that matter was indestructable and eternal. The discovery of radioactivity by Henri Becquerel changed all this and provided the clue to cosmic energy. (Gold has been made artificially, but it's a lot cheaper to dig it.)

The sun is mostly hydrogen and it is this, combining to form heavier atoms under intense pressure and heat, which keeps the sun burning. The same process is utilized in the H-bomb. The principle is the one the alchemists were seeking — the change of one kind of matter into another.

A depth charge (as every sailor knows) consists of a detonator, primer and main charge. The detonator explodes the primer, which sends a shock wave through the TNT, amatol or torpex filler, and everything goes.

The A-bomb is the "primer" of the H-bomb. It provides the source of heat (measured in hundred of millions of degrees which sets off the "hell-bomb" explosion. What the main "explosive" of the H-bomb is has not been disclosed, although it is presumed to be H-2 (deuterium), H-3 (tritium), the light metal lithium, or two or more of these in combination. Tritium, the heaviest form of hydrogen and radioactive, will produce the biggest bang, but is extremely rare in nature and costly to produce artificially.

In any event, there is theoretically no upper limit to the size of an H-bomb. When the public is told such a bomb will lethally poison with radioactive by-products an area of 7,000 square miles, this is presumed to refer to a specific bomb and the poisoned area could be much greater or much less. Similarly, the area of total devastation, in which there is no hope of survival, would dependon the size of the H-bomb.

Part of the poisonous nature of the H-bomb is due to the great surplus of neutrons produced, which unite with the atoms of the bomb's outer casing, the surrounding atmosphere and the earth or sea below the burst to produce radioactive substances.

It is obvious that defence against such a weapon is rather a special problem unless one is immediately under the burst. Otherwise, a great deal can be done to remove contamination and maintain the serviceability of the ship or establishment affected.

The main problem, however, is to prevent such weapons ever being used and this is a political matter outside the sphere of this grossly over-simplified discussion of nuclear weapons.

— From "The Crowsnest," the Journal of the Canadian Navy.

* * *

"What the law demands, give of your own free will."

—Terence.

FOR ANY BOY

By GEOFFREY WINTHROP YOUNG

Published in "The Sea Cadet," London

I wish for him
strength; that he may be strong in every limb,
stubborn and fearless, with no cover to thank,
fighting for men with men in the front rank.

I wish him kind;
that he may have the weak always in mind;
such kindness as first treads the path of fear,
not tendance on the wounded in the rear.

I'd have him grow
deep-breathed, deep-hearted, cherished of wind and snow;
loving delightful laughter, and harsh thrills
in summer rivers and on perilous hills.

I wish him sight;
that he may read the world's real beauties right;
and for himself, wit and a laughing heart,
lest he may rage to bear so small a part.

I wish him thought;
that he may fashion faith even to a nought,
rather than take another's creed on trust,
and pass a fool and profitless to dust.

I'd have him range
a rebel, loving change only for change;
till he can forge a yoke for his broad back
and drag his kind one step up some new track.

Let him know men,
and have all acts, all passions in his ken;
they win no wars who peep on life askance
and shoot wise saws from sheltered ignorance.

Let him be flame,
quenchless and vital, in all winds the same;
fuse soul and body, and refine through years
judgment from passion, joy from his burning tears.

So let him live;
love work, love rest, love all that life can give;
and when he grows too weary to feel joy,
leave life, with laughter, to some other boy.

For Sea Cadets

N.S.W. Cadets Athletic Meeting

By D.J.M.

The first Annual Athletic Carnival of the N.S.W. Division was held on September 10 and 17 at the E. S. Marks Memorial Sports Ground, Moore Park.

Results were:—

SENIOR EVENTS

100 yds.: J. R. Whelan (*Shropshire*) 1, W. Winsor (*Shropshire*) 2, 11.8 secs.

220 yds.: J. H. Hiley (*Sirius*) 1, A. Trebilcock (*Sydney*) 2, 27 secs.

440 yds.: J. R. Whelan (*Shropshire*) 1, J. F. Hiley (*Sirius*) 2, 64.2 secs.

880 yds.: J. F. Hiley (*Sirius*) 1, D. R. Crawford (*Sirius*) 2, 2 min. 31.1 secs.

Mile: J. G. Nihill (*Perth*) 1, P. E. Edwards (*Shropshire*) 2.

High Jump: J. A. Crawford (Sydney) 1, J. F. Bennett (*Perth*) 2, 4 ft. 10 ins.

Broad Jump: J. A. Crawford (Sydney) 1, R. Mitchell (*Sirius*) 2, 18 ft. 6 ins.

Hop, step and jump: J. A. Crawford (Sydney) 1, G. Altmann (*Perth*) 2, 36 ft. 10 ins.

12 lb. shot putt: P. E. Edwards (*Shropshire*) 1, T. W. Fraser (*Shropshire*) 2, 29 ft. 5½ ins.

4 x 110 yds. relay: T.S. *Shropshire*.

Medley relay: T.S. *Sirius*.

Tug of war: T.S. *Shropshire*.

UNDER 16

100 yds.: J. F. Hiley (*Sirius*) 1, J. G. Nihill (*Perth*) 2, 12.2 secs.

220 yds.: J. G. Nihill (*Perth*) 1, R. Mitchell (*Sirius*) 2, 27.2 secs.

High jump: J. A. Crawford (Sydney) 1, W. Winsor (*Shropshire*) 2, 4 ft. 10 ins.

Broad jump: J. A. Crawford (Sydney) 1, J. G. Nihill (*Perth*) 2, 18 ft. 1 in.

8 lb. shot putt: P. E. Edwards (*Shropshire*) 1, L. J. Williams (*Warrego*) 2, 37 ft. 8 ins.

4 x 110 relay: T.S. *Sydney*.

Medley relay: T.S. *Shropshire*.

90 yds. hurdles: S. J. McConnell (*Sydney*) 1, Hancock (*Australia*) 2, 16.2 secs.

WINNERS OF TROPHIES

The Stamina aggregate point score cup: T.S. *Sydney*.

The Frank Nicholas Cup for senior 100 yds.: T.S. *Shropshire*.

The Hanman Cup for junior aggregate point score: T.S. *Perth*.

* * *

N.S.W. Division entries:—

T.S. *Sydney*: 1398 K. Binns, 1377 S. J. McConnell, 1331 R. F. Darby.

T.S. *Australia*: 1382 A. J. Hinchey.

T.S. *Warrego*: 1383 R. D. Grimley (from juniors), 1384 K. G. Grimley (from juniors), 1385 R. J. Lee, 1386 L. R. Redman, 1387 R. J. Owen.

T.S. *Perth*: 1372 D. M. Williams, 1373 B. C. V. Holts, 1380 B. Vine, 1382 A. Carrigan.

T.S. *Sirius*: 1365 J. Harmer, 1376 J. Schmidt.

T.S. *Tobruk*: 1388 W. Bramble, 1389 R. J. Palmer, 1390 A. C. Struck, 1395 W. G. McFarlane, 1399 R. D. Stewart.

T.S. *Shropshire*: 1371 B. J. McWilliam, 1375 K. Hanny, 1391 B. W. Hughes, 1392 K. W. Stephens, 1393 R. F. Hogan, 1394 R. J. Gow, 1396 W. G. Webster, 1397 D. R. Lane.

Resignations: Mr. J. Morris (C.W.O. R.A.N.R.) from Commanding Officer T.S. *Tobruk*; Mr. E. McGinness (C.P.O. Instructor) from T.S. *Tobruk*; Mr. E. Stallard (P.O. Instructor) from T.S. *Tobruk*. Cadet able seaman N. Klien, T.S. Warrego; Cadet able seaman R. Davis, T.S. *Warrego*.

Training Activities: One Chief Petty Officer Instructor and 15 Cadets from Newcastle unit, T.S. *Tobruk*, spent the week-end on board H.M.A.S. *Sydney* from September 9 to 11. This camp enabled them to attend the athletic carnival on the first day. On the Sunday they assisted the ship's company of the Sydney to entertain the large number of parents and children on board for the Family Day. At other times they were given instructions on parts of ship, shown over the engine room, and various other parts of the internal organisation the ship was explained to them.

* * *

Trafalgar Day: One officer and 36 cadets are under training in H.M.A.S. *Rushcutter*, every Thursday evening, for the Trafalgar Day guard of honour and colour party. Lieutenant J. Lovell, R.N., and Chief Gunnery Instructor Cameron of H.M.A.S. *Rushcutter*, have taken them in hand.

* * *

Visit To Newcastle: A guard of honour, consisting of 24 cadets and the colour party, will proceed to Newcastle in H.M.A.S. *Anzac* to assist T.S. *Tobruk* with the Trafalgar Day celebrations. The cadets will spend the week-end on board H.M.A.S. *Anzac*, and carry out sea training en route to Newcastle.

* * *

Personal: The Divisional Senior Officer (N.S.W. Division) S/C Commander L. E. Forsythe, S.S.D., has joined the liner *Southern Cross* and is on his way home. He expects to arrive in Sydney on October 21.

Continued on page 32

PROBING THE OCEAN DEPTHS—
Continued from page 16

surface waters, for it is there that the plankton is found, the floating mass of tiny plants and creatures, some of them microscopic in size, which depend on sunlight for life and which form the food, either directly or indirectly, of everything that lives in the ocean. So the nature and distribution of plankton forms one of the most important branches of marine research, and recently a new instrument has been perfected to help the work along, an automatic plankton collector which can be towed at a known depth by ships travelling on regular routes.

If there is a great deal to be learned about the smallest of the ocean's creatures, the same holds good of the greatest of them all, the whales. Considering their size and the fact that a highly organised industry is devoted to their capture, it is quite remarkable how little is yet known about them. It was not so very long ago that we were ignorant of how a sounding whale could withstand the sudden change in pressure as he dived perhaps 300 ft. or 400 ft. or more. Gradually that problem has been cleared up. The whale has tremendous strength in its skeleton, with reinforced ear and skull, and a special shunt system in its circulation. Unlike a human diver, whose air pressure is gradually built up as he descends, the whale dives on one breath — the sperm whale may go to a depth of as much as 750 ft. or even more, and stay there on that one breath for a quarter of an hour or 20 minutes. During his dive, it is thought possible that some of the blood from his surface muscles may be forced by the pressure into his shunt circulation system.

The baleen, or whalebone whale, is a plankton eater, living on the "krill" or small shrimplike creatures that form part of the plankton population. The food of the sperm whale is a very different matter. He lives on a creature which, until recently, was looked on as just one more myth of the ocean, the giant squid. The squid itself is still very much of an ocean mystery. Nobody has ever caught a giant squid alive, but a few have been washed up dying or dead, and recently a sperm whale vomited up a live squid that was 31 ft. long overall. That squid was only half-grown. Had it been fully grown it might well have been 50 ft. or 60 ft. long.

In these days of speed, it is being realised more and more by explorers of the sea that the race is not always to the swift. For example, the members of the famous Kon Tiki expedition, in their great, slow drift across the ocean, were more in touch with the life of the waters than any rapidly moving expedition could be, and it seems likely that in the future the method of drifting with the ocean currents, moving at the same rate as the sea dwellers move, will be employed as a valuable method of ocean research.

The Minister for the Navy, Mr. J. Francis, plants a tree at the East Hills Naval housing settlement.

THE VICTORIA CROSS—
Continued from page 15

Lieutenant (temporary Lieutenant-Colonel) R. B. Bradford earned his V.C. in France in October, 1916, and his brother, Lieutenant-Commander G. N. Bradford, R.N., of H.M.S. *Iris*, for gallantry at Zeebrugge, on April 23, 1918.

Instituted nearly a century ago for "rewarding individual cases of merit and valour" in the presence of the enemy, the Victoria Cross is still the most democratic, and, in the words of the original Royal Warrant of 1856, "the most highly prized and eagerly sought after" decoration in Britain and the Commonwealth, and one of the rarest in the world.

Since its first institution the Cross has been made by the same London firm, Messrs. Hancocks, established in 1848. The actual diameter of the Cross is 1½ ins. with a ribbon of the same width.

SEA CADET NEWS—
Continued from page 30

News from Sub-Lieutenant P. Gudgeon, R.A.N.R., who is attached to T.S. *Warrego*, and now serving in H.M.A.S. *Queenborough* overseas, indicates that he is receiving valuable experience in the United Kingdom and should be of great value to *Warrego* on his return.

Mr. Grant, who has been appointed as a S/C Sub-Lieutenant and attached to T.S. *Warrego*, is one of the old members of that unit, when it was known as N.L.T.D. *Warrego*, a Navy League Sea Cadet Unit. His services and experience in the past should be of value to *Warrego*.

* * *

T.S. *Sydney* (Snapper Island) is making preparations for the homecoming of the Divisional Senior Officer, who also has an interest in the "Rock."

At T.S. *Warrego*, great building activities are afoot. The cadets have almost completed a storeroom and wash place. The chairman of the Warrego local committee, Lieutenant Dudley Reid, is the live wire behind the go-ahead plans for *Warrego*. The *Warrego* Ball is to be held on October 21. It is hoped to interest everyone nearby and afar in the unit. We may yet see *Warrego* parading 60 to 100 cadets.

T.S. *Sirius*, too, has a Ball on October 28, at Arncliffe Coronation Hall. There seems to be a sudden social rush in all units. That is what we want, lots of social activities to help boost up the units and get people interested.

The Commanding Officer of T.S. *Albatross*, Lieutenant Dave Lindsay, has recently been to hospital for an operation. He has now recovered and is back on the job. Assistance from H.M.A.S. *Albatross* enabled the unit to carry on during his absence.

T.S. *Tobruk* has seen a few changes in the past few weeks. The Commanding Officer, Mr. J. Morris, R.A.N.V.R., resigned. Chief Petty Officer McGuinness and Petty Officers Stallard and Burt went with him. A present Chief Petty Officer Instructor J. Blight, Ex R.A.N., has been entrusted with the charge of the unit until an officer to replace Mr. Morris is appointed.

The division has been fortunate in having the Port Gymnasium allocated to cadets every Monday evening for a three month's trial. We should get some budding P.T. leaders out of this. The Staff Command P.T.I., Petty Officer Sivell, will assist in the training, and we have two very good P.T.I.'s in the making, Petty Officers Wilson (*Shropshire*) and Ablett (*Sirius*) to assist him. Acting leading seaman Colvin, of T.S. *Australia*, is at present undergoing training in physical education at the Teachers' College.

* * * * *

"Scepticism is slow suicide."—Emerson.

VENOM

Range, speed and fighting power for the Royal Air Force, the Royal Navy and the Royal Australian Navy.

DE HAVILLAND

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ENGINES

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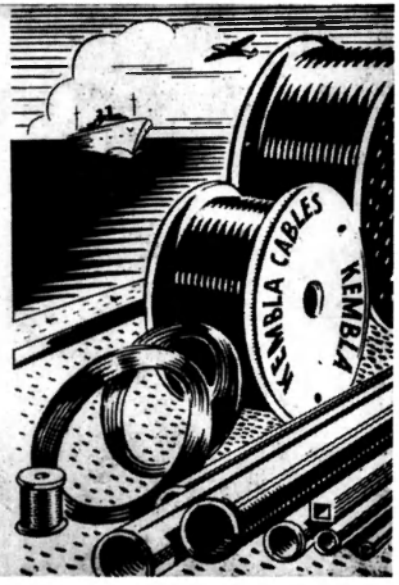
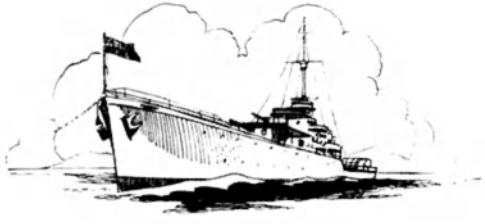
THE NAVY





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THE CASE FOR RESERVES

The Minister for the Navy, Mr. J. Francis, has made a survey of naval policy and the strength of Australian Naval Forces which clearly poses certain timely problems relating to the naval reserve.

No one can now dispute the fact that the naval reserve of Australia is in a serious state.

An expert committee has just told Mr. Francis that the present state of the naval reserve constitutes "a serious defficiency in the naval defence of the country."

It says that this position would arise particularly in any speedy or efficient mobilization in war or emergency.

It has proposed far reaching reforms to overcome the position.

One of these is that the period of training for national service trainees should be extended to cover three or four years.

Such a proposal indicates clearly that the Navy s position in regard to its reserve is, to say the least, serious and alarming.

Why has this position arisen?

It has arisen because volunteers cannot obtain promotion, because there is a lack of training facilities, because there are not sufficient qualified instructors, and because officers and ratings feel that they will never have the chance to achieve a command or to exercise authority.

In a speech which appears on page 6, Mr. Francis states that the naval reserve forms an exceedingly important part of the naval defence system of Australia.

Just how important—and just how serious—the position has become since the end of World War II can be learned from the findings of the committee which the Federal Government set up to deal with it.

That committee—Government Members Defence Services Committee — comprising many ex-servicemen, has dealt at length with the question.

It has reached these findings:

- That the true strength and efficiency of the Naval Reserve is considerably lower than that indicated by their nominal strengths.
- That the position is not improving.
- That the Federal Government and the Naval Board must make available more money, permanent Naval Forces, material and ships to re-organise, strengthen and train the Reserves.

If one accepts these findings—and they were made after exhaustive discussion with members of the permanent forces and of the Reserves—one must also examine closely the recommendations of the committee.

These cover seven points:

1. That the control of the Naval Reserves be re-organised at Naval Board level.
   The recommendation suggests that an additional member of the Naval Board, with the status of Commodore, should be appointed.
2. That the R.A.N.R. (S) should be continued as at present but that this branch should be widened to bring in through national service young men professionally associated with the sea.
3. The obligation for national service training of those who elect and are selected to serve in the Navy be extended to cover a period of three or four years.
4. That if the first year of national service training be carried out under the previous recommendation training in subsequent years should be carried out in R.A.N.R. establishments.
   The R.A.N.R. should therefore be re-organised at Port Division level.
5. Each R.A.N.R. division should be organised as a separate command.
   A senior R.A.N.R. officer should command each division which should be organised as a ship's company.
6. That the R.A.N.V.R. should be retained as at present to provide a way of keeping officers and ratings with war experience available for mobilization.
7. That a proportion of each national service intake should be reserved for naval cadets who reach a required standard.

In making its report, the committee said this:

"We cannot ignore the repeated warnings by distinguished service personnel that Australia will not have the breathing space in a future war which she had in the last two world wars.

"It is clearly evident that rapid and efficient mobilization and subsequent expansion in war or emergency is essential for national and naval defence."

Summarising, it is clear that if Australia is to have a navy, ready to operate at peak efficiency at any time, it must have a solid, trained and enthusiastic reserve.

But it is equally clear from the picture, as outlined, that Australia has not such a reserve and cannot have one until the authorities solve the problem.

Most navy men agree that the recommendations of the Government committee would go a long way to solving the problem.

THE STATE OF THE R.A.N.

The Minister for the Navy, Mr. J. Francis, in his speech on the Naval Estimates in the House of Representatives, outlined naval policy and reviewed the state of the Australian naval forces.

THE Minister said the Royal Australian Navy's role in war would be:

(a) To secure local sea communications.
(b) To provide forces to assist in securing the sea communications of the ANZAM region.
(c) To prevent an attack on Australian territories by enemy seaborne forces.
(d) To escort Australian land forces where required and subsequently to assist in their support.
(e) To contribute to the whole of the Allied Naval forces assembled for offensive action against the enemy and enemy-held territories.

"The plans for the peace-time Navy provide what is regarded as the minimum effort to prepare to meet potential war commitments and to be able to expand readily to take an active part in the cold war in the Far East as required," the Minister said.

"Apart from this, important considerations, including commitments dictated by Governmental agreements, determine policy as to the number of ships to be kept in commission and their employment in peace.

STRENGTH IN SHIPS

"The Navy consists of ships in commission, ships in reserve and ships under dockyard control.

"The flagship of the Australian Fleet is the aircraft carrier *Sydney*, which wears the flag of Rear-Admiral H. M. Burrell, C.B.E. The other ships of the Fleet are:

"The Battle Class destroyers *Tobruk* and *Anzac*.

"The Tribal Class destroyers *Arunta* and *Warramunga*, which are both temporarily under the control of the Commander-in-Chief, Far East Station and are serving in the Malayan area.

"The fast anti-submarine frigates *Quadrant* and *Queenborough*, the latter of which is at present in the United Kingdom where she is gaining valuable first-hand experience against the latest type of under-water vessels.

"The River Class frigates *Shoalhaven* and *Condamine*.

"The survey ships *Warrego* and *Barcoo*.

"Apart from the ships of the Fleet, there are miscellaneous vessels, including some ships in commission and the ships in reserve and in dockyards, which come under the orders either of the Flag Officer in Charge, East Australian Area, the Naval authorities in other areas, or the Commodore Superintendent of Training at Flinders Naval Depot.

"During the last 12 months the Navy's activities have covered a wide field. Apart from the two destroyers at present serving in the Malayan area as part of Australia's contribution to the strategic reserve, a frigate has been maintained in Korean waters and another frigate has been based on Darwin to patrol the pearl fisheries and other northern waters. Ships of the hydrographic service have surveyed waters along different parts of the Australian coast.

"The aircraft carrier *Sydney*, now the Fleet training ship, has visited New Zealand on a training cruise, and she and other smaller ships have visited various Australian ports.

"The aircraft carrier *Vengeance*, which was lent to the Royal Australian Navy by the Admiralty pending completion of the new carrier *Melbourne*, has returned to the United Kingdom and reverted to the Royal Navy. The crew that steamed her to England will steam the *Melbourne* to Australia in 1956. The *Melbourne* will be one of the most modern light fleet aircraft carriers in existence.

TRAINING

"On two occasions in the last financial year ships of the Royal Australian Navy took part in extensive and extremely important exercises with other naval units and air units in waters north of Australia.

"The first of the exercises, in which R.A.N. aircraft also took part, was held in the Manus Island area from October 4 until October 20, 1954, and the second in the Timor and Java Seas and the Malayan area from May 27 until June 17.

"Training, including Fleet Air Arm and weapon training and the training of recruits, reserves and national service men, continues at sea and in the Navy's shore-establishments.

"It has recently been decided to train Fleet Air Arm observers and aircrew-men in Australia instead of using facilities of the Royal Navy in England. This will save about £160,000 a year.

"A floating school for the training of frogmen was opened on board a 200-ton converted concrete lighter moored off Clarke Island, Sydney Harbour, last March. It is a base for training naval officers and ratings in many aspects of underwater warfare.

"The establishment of the Australian Joint Anti-Submarine School by the Royal Australian Navy and the Royal Australian Air Force at Jervis Bay several years ago has proved most successful. Officers of the School have taken part in all the large-scale anti-submarine exercises conducted by ships of the Fleet and R.A.A.F. aircraft.

"Valuable service in these exercises and in other anti-submarine training has been given by three Royal Navy submarines based on Sydney. The submarines have also visited New Zealand from time to time to assist in the Royal New Zealand Navy's training programme.

NAVAL RESERVE

"The Naval reserves form an exceedingly important part of the naval defence system because, in the event of war, they ensure that a large number of trained officers and men immediately become available to supplement the officers and men of the permanent naval forces.

"The growth of the reserves in Australia since the beginning of the First World War is made apparent by the fact that only 531 officers and 4305 ratings could be mobilised in August 1939, whereas in August 1955, 1462 officers and 8002 ratings, including 4495 national service ratings, would have been ready for mobilisation if required.

"The growth of reserve rating strength has been due to the increase in the numbers of Royal Australian Fleet Reserves and the inclusion of the national service ratings, who, under the National Service Act, are borne on the R.A.N.R. for five years from the date on which each of them begins his training, and who are liable, under the Act, for immediate mobilisation in time of war, even though they may have completed their compulsory training.

"Notwithstanding the increase in numbers compared with 1939, however, the number of ratings serving in the R.A.N.R. voluntarily has decreased.

"The decrease has been due to two principal causes.

"The first is that compulsory national service has virtually eliminated the source of supply of recruits for the reserve. The second is that many youths who have fulfilled their statutory defence training obligations apparently feel that no further service is required of them.

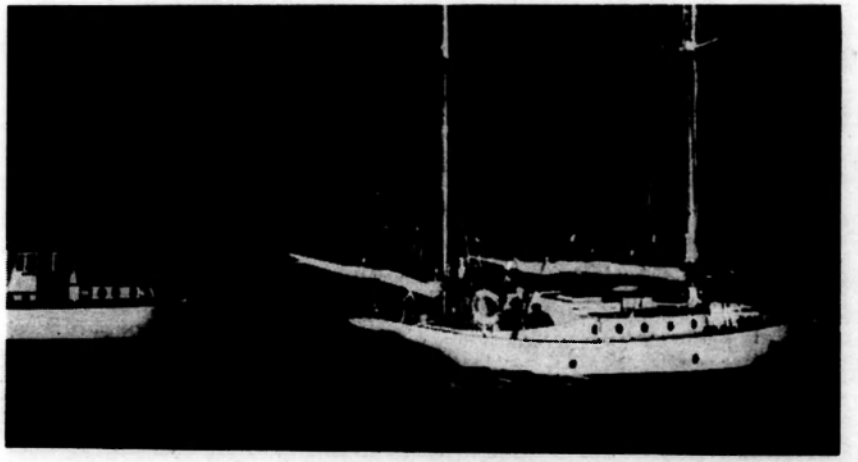
"In spite of the decline in the number of ratings serving in the R.A.N.R. voluntarily, it is encouraging that since reserve training was resumed in 1950, following the interruption brought about by the war and circumstances of the post-war years, the numbers of officers in the R.A.N.R. has grown from 203 to 540.

"In an effort to increase the figures relating to the recruiting of reserves and to improve reserve training methods, the Government Members' Defence Services Committee, at my request, examined this problem and recently made various recommendations. The time and attention that the committee gave to this task are deeply appreciated, and the suggestions it put forward are being exhaustively studied.

"In the meantime it can be emphasised that the facilities provided for reserve training are immeasurably better than those provided before the last war and are being substantially improved.

"Since the war all reserve training establishments have been completely refitted with modern instructional equipment. This will be added to from time to time.

"The standard of theoretical instruction in the R.A.N.R. is the same as that in the R.A.N., but reserve officers and men are not in a position to acquire practical experience to the degree that permanent officers and men do.



H.M.A.S. Wagga recently was sent on a towing task—to bring the yacht Cetonia back to Sydney. The Cetonia had sailed from Sydney for Port Stephens and was missing for several days. H.M.S. Newcastle sighted the yacht and reported her position to shore authorities. The picture shows the Cetonia, with a fishing party of 12 on board, in Sydney Harbour after the tow was completed.

"All new officers in the reserve undertake divisional courses as soon as possible after their appointments have been gazetted. They attend specialist schools, including schools at the R.A.N. air station at Nowra (N.S.W.), when attendance is appropriate. Their examinations are set and the papers marked to R.A.N. standards.

"It has been arranged that a senior captain of the permanent naval force shall be appointed to command the reserve, and further permanent naval officers will assist him in the re-organisation of the reserve, which is approaching completion.

"A corps of permanent naval force instructors has been formed and will, as soon as possible, be built up to adequate strength to compete with all training requirements in the depots.

"An ocean minesweeper will be provided in Sydney and will be manned almost entirely by reserve officers and men.

"Up to the present 5207 youths have been called up for national service training in the Navy. Of these, 483 have remained in the voluntary component of the R.A.N.R. on completion of their statutory training and 52 of them have been appointed officers. Sixty-five (65) others have been appointed officers in the R.A.N.R. (Seagoing) and still one other in the R.A.N.V.R.

MANPOWER

"One of the most serious problems with which the Navy, as well as the other Services, has had to contend is the shortage of manpower. Its establishment of personnel remains unaltered at 14,400, the figure for last year, but the number of personnel at present borne is only 13,311.

"Every effort is being made to attract more recruits. Consideration is being given to means of improving conditions of service and stepping up recruiting and a campaign to enlist ex-Royal Navy ratings in the Royal Australian Navy will shortly be opened in Britain.

"The shortage of artificers in the skilled trades branches has caused the Naval Board special concern, and it has decided to introduce an apprentice-training scheme of its own and to establish a school for apprentices at Schofields (N.S.W.) early in the second half of the current financial year.

"This particular shortage has been caused by the keen competition for skilled tradesmen among private firms, who can, at present, offer exceptionally attractive conditions of employment. Even so, like the Navy, they cannot get all the skilled men they need.

"Boys aged between 15 and 17 years will be eligible to enter the apprentice school, provided that they are of normal physique and have passed the sub-intermediate or intermediate examinations or their equivalents. They will be chosen by interviewing committees.

"Approval has been given for 100 apprentices to be entered each year and it is hoped that eventually not fewer than 400 will be under training ashore.

"The establishment of the Women's Royal Australian Naval Service remains at 275. WRANS continue to do a variety of tasks efficiently in different parts of Australia. Some of them serve at the naval wireless stations near Canberra and Darwin and thus help to relieve the manpower deficiency at those places.

"A proposal that WRANS should be allowed to re-engage for two years instead of four, if they wish to, has recently been approved and this should increase the number of re-engagements.

PROGRAMME

"The construction programme which was formulated to keep the Navy in balance is proceeding. It covers the requirements of new ships up to 1961.

"Three new Daring Class ships are in course of construction. One of them, the *Voyager*, has been launched at the Cockatoo Island Dockyard, Sydney, and another, the *Vendetta*, at the Naval Dockyard at Williamstown (Vic.). The third will be launched at Cockatoo Island in the middle of 1956. Most of the main machinery and some of the auxiliary machinery for these ships has been made in Australia.

"Four anti-submarine frigates will be built, two of them at Cockatoo Island and two at Williamstown. A large proportion of the main and auxiliary machinery, which will be of more advanced design than that fitted in the Daring Class vessels, will be of Australian manufacture.

"The conversion of two "Q" Class destroyers, built in the Second World War, into fast anti-submarine frigates has been completed and the ships are in operational service. As stated earlier, one of them, the *Queenborough*, is at present in the United Kingdom. The other is the *Quadrant*. Two other ships of the same class are also being converted.

"The construction of the R.A.N. fleet tanker *Tide Austral* has recently been completed in the United Kingdom and the vessel has been lent to the Admiralty, who will maintain and operate her until she is required on the Australia Station.

"The boom working vessel *Kimbla*, which is being built by Walkers Ltd. at Maryborough (Q'land.) will be completed by the end of 1955.

"The frigate *Swan* is being extensively refitted and will be used for the sea-training of cadet-midshipmen on their passing out of the Royal Australian Naval College.

"Ships in reserve are being maintained in a state in which they could be ready at short notice in the event of war. Those that are obsolete are being disposed of.

WORKS IN PROGRESS

"Although it has been necessary to reduce the amount for works, important projects will be continued or commenced during the year and existing buildings will be repaired and maintained to the utmost extent possible.

"The construction of quarters

Continued on page 15

A Career for Girls in the Navy

Among the many different occupations in which young women are engaged it would be hard to find one that is more attractive and congenial than service in the W.R.A.N.S.

THIS service provides novelty and variety and opportunities to travel about Australia. It also provides good pay, in addition to deferred pay, first-class amenities and plentiful openings for advancement.

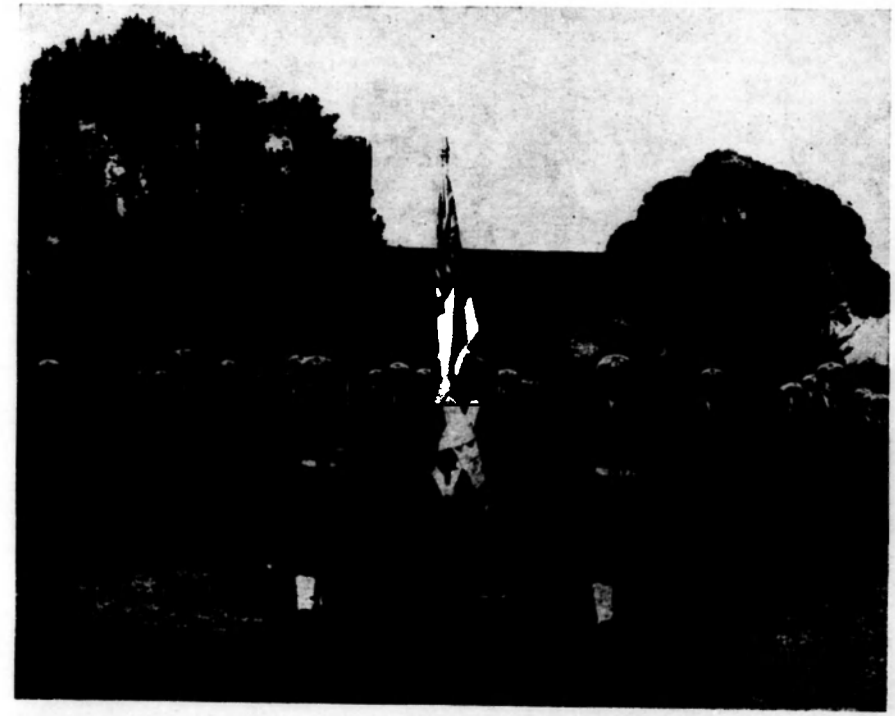
The W.R.A.N.S., or Women's Royal Australian Naval Service, to give it its full name, has appealed widely to the young women of the Commonwealth. Those at present serving are carrying on the good work of the WRANS who served Australia so well during the War.

At present there are vacancies for telegraphists, who will be employed at H.M.A.S. *Harman* (the Royal Australian Navy wireless station at Canberra) and at Coonawarra (the naval wireless station attached to H.M.A.S. *Melville* at Darwin). The telegraphist branch is one of the most interesting branches of the service.

To be eligible to join the WRANS, candidates must be single women or widows without dependent children and they must be of British nationality, substantially of European descent, and must be living in Australia. The period of enlistment is four years.

So that WRANS shall be "happy in the service," because

Continued on page 21



The passing out ceremony at the Royal Australian Naval College is an important occasion. This picture shows the parading of the white ensign at a recent ceremony at the College.

Older Boys May Now Enter the Royal Australian Naval College

(By a Special Correspondent)

BOYS throughout the Commonwealth are presented with a remarkable opportunity twice a year when the Australian Commonwealth Naval Board invites them to apply for entry to the Royal Australian Naval College.

The college is the initial training ground for most of the officers whose proud privilege it is to serve permanently in the Royal Australian Navy.

Since it was established in 1913 it has produced four admirals and a large number of other senior and less-senior officers who have distinguished themselves in war and won high service decorations.

Among its distinguished graduates are the First Naval Member and Chief of the Naval Staff (Rear Admiral R. R. Dowling, C.B.E., D.S.O.) and his immediate predecessor, Vice-Admiral Sir John Collins, K.B.E., C.B., both of whom, as all entrants do, joined the college as cadet-midshipmen.

Many other graduates have held, or still hold, high positions in the Royal Australian Navy, both at sea and ashore.

As a result of a recent decision by the Naval Board boys in older age-groups than formerly may now be selected for entry to the college and thus be enabled to take advantage of the many benefits that selection provides.

These older age-groups include boys who are between 15¼ and 16½ in January of each particular year, and can pass an examination approximately equivalent to intermediate standard, and boys up to 19 who have passed the matriculation examination for any Australian University.

In the past, entries have been confined to 13-year and 15-year-old boys, but experience has shown that the system based on those age-groups has certain disadvantages and that changes are desirable.

Cadet midshipmen of the Royal Australian Naval College receive instruction in steering a ship.

Because of this both the 13-year-old and the 15-year-old entries have been abolished and new entries, to be known as the normal and matriculation entries respectively, instituted in their stead.

Boys of both entries will enter the college in January of each year, but applications for the normal entry will close in the preceding June and those for the matriculation in the preceding October.

Entry into the college affords free education, books, clothing, maintenance and a financial allowance for cadet-midshipmen while they are serving there and also opens the way to a life of unusual interest and to an honourable professional career.

Cadet-midshipmen of the normal entry will remain at the college for three years, and those of the matriculation entry for two terms—amounting in all to about eight months. All of them join the college in January.

The normal-entry cadets will pass out in December of their third year and those of the matriculation entry in August or September of their first year.

Cadets of both entries will then serve in a Royal Australian Navy frigate for from eight to 12 months to gain sea experience and after that go as midshipmen to the Royal Navy College at Dartmouth (England) for 16 months for further training. Having been promoted sub-lieutenant those who are to be executive officers will return to Australia to serve in R.A.N. ships.

Those who are to specialise in engineering will go to the Royal Navy Engineering College at Manadon for three years and those who are to serve in the Supply and Secretariat Branch to the Royal Navy Supply School, H.M.S. *Ceres*, for a period yet to be determined.

On the conclusion of their training in England, engineering and supply officers will also go to sea with the R.A.N. as sub-lieutenants.

Cadet-midshipmen who want to become officers in the electrical branch will, on completion of their training at the Royal Australian Naval College, go to the Melbourne University to study for the degree of Bachelor of Science. All their fees for books, lectures and maintenance will be paid by the Naval Board.

After they have reached the rank of lieutenant, executive officers who are to specialise in gunnery, navigation, communications, torpedo-anti-submarine and other subjects will return to the United Kingdom to do courses which will occupy them for about a year.

Some officers will be given the opportunity, if they wish, to become qualified pilots in the R.A.N. Fleet Air Arm.

From time to time officers of the R.A.N. are selected to do exchange service with the Royal Navy. Normally the period of exchange is two years, during which the officer may serve at sea in any part, or various parts, of the world, or at the Admiralty or some historic shore establishment in the United Kingdom.

Boys who enter the Royal Australian Naval College immediately become part of the splendid tradition and rich ceremonial of a service that goes back for centuries, a service whose famous names have been spread gloriously across the noble pages of British history.

It is one of the great prides of the Royal Australian Navy that it has always tried to uphold the high examples it has inherited, as the exploits of its officers and men in the two world wars of this century and in the Korean area have shown.

Life for a cadet-midshipman at the college is, from beginning to end, a fascinating daily round in which he engages in general studies, gains theoretical and practical nautical knowledge and takes part in athletic sports and games and other forms of recreation in delightful and healthy surroundings.

Portion of his recreation includes sailing and racing in the college yachts and dinghies, cutters and other small boats. Three cadets were included in the crew of the college yacht *Tam-O-Shanter*, which was one of the contestants in the last race from Sydney to Hobart.

Religious instruction has an important place in the college curriculum and all cadet-midshipmen attend church on Sundays and other special days.

After a cadet has left the college he is promoted automatically step by step until he has reached the rank of lieutenant-commander within about 12 years.

From then on, promotions are made by selection, but, as has already been pointed out, promotion to the most senior rank in the R.A.N. is possible.

It is difficult to imagine a more attractive life for a boy to enter upon than that of a naval officer. The opportunity to apply to do so is now made available to every boy in the Australian Commonwealth, provided that he comes within certain age-groups and can satisfy certain requirements set out by the Naval Board.

The college was originally established at Geelong (Victoria) and was later transferred to Jervis Bay (A.C.T.). It has for some years now been situated in the grounds of Flinders Naval Depot at Crib Point (Victoria).

Communications are vitally important in the Navy. Here two cadet midshipmen at the Royal Australian Naval College are shown practising lamp signalling.

NEWS OF THE WORLD'S NAVIES

Commandos make amphibious landing

A force of 250 officers and men of 42 Commando embarked in H.M. Ships *Chevron* and *Chaplet* at Rosyth on September 23 to take part in a N.A.T.O. Exercise in Denmark. This exercise "*Strong Enterprise*," was a two-sided one in which 42 Commando made an amphibious landing from these destroyers on the Danish island of Zeeland. Vehicles were taken in H.M. L.C.T.4037. On completion of the exercise, 42 Commando spent four days in barracks in Copenhagen as guests of the Danish Army before returning to the United Kingdom.

42 Commando, stationed at Bickleigh, near Plymouth, Devon, is responsible for training R.M. officers and men for services in 3 Commando Brigade.

New fast tanker for Royal Navy

The R.F.A. *Tidereach*, 26,000 tons, was accepted into the Royal Naval service from the hands of her builders, Messrs. Swan Hunter and Wigham Richardson Ltd., Wallsend-on-Tyne, early in September. She represents a modern trend in the design and role of Royal Fleet auxiliary vessels.

The aim of this big new tanker and her sister ships, *Tiderace* and *Tiderange*, is the support of the Fleet and the replenishment of its supplies under way at sea. She is, therefore, fast, capacious (15,000 tons of fuel cargo) and fitted with the most modern handling gear for transferring food, stores, ammunition, oil and jet aircraft fuels by jackstay and derrick to ships needing them. The oil cargo can be subdivided into five different categories, all capable of being discharged at extremely high rates to ships on either beam or astern and while steaming at high speed.

The R.F.A. *Tidereach* is powered by double reduction geared turbines capable of developing 15,000 shaft horsepower and giving the vessel a maximum speed in excess of 18 knots; she is about 580 feet long, 70 feet in beam, and has a loaded displacement of approximately 32 feet.

Bravery in submarine disaster recognised

Admiral of the Fleet Sir George Creasey, G.C.B., C.B.E., D.S.O., M.V.O., Commander-in-Chief, Portsmouth, early in September issued a special order commending five men for their conduct when H.M. Submarine *Sidon* sunk at Portland on June 16, with the loss of 13 lives.

They were Lieutenant-Commander Hugh Tyrell Verry, R.N., Commanding Officer of the *Sidon*; Lieutenant-Commander Charles Francis Alington, R.N., of H.M.S. *Maidstone*; Commissioned Engineer Roy Edward Hawkins; Engine Room Artificer First Class, Albert Pearson; and Chief Ordnance Artificer John Walter Ward.

Simplicity the keynote of new jet fighter

The Folland Gnat light jet fighter (mentioned in last month's "Navy" as a likely aircraft for carriers) is the first of its class to be built and flown. It is one-third or less the weight of a conventional fighter and can be built in one-third or less the man-hours. It can be flown from reinforced grass runways, and needs far less maintenance time than heavier fighters; yet it has the same speed and radius of action, and is superior in manoeuvrability, rate of climb and service ceiling.

It can be used in three different roles — interceptor, close-support, and as a ship-borne fighter. It lends itself to considerable development in performance and weapon power in the future.

Work on the design of this light fighter started in 1951 at a time when the growing size, weight and mechanical complexity of the conventional fighter were creating grave and harassing problems for both manufacturers and operators. Fighter weights had by then reached 18,000 to 20,000 lb. and were rising—as were maintenance man-hours in relation to flight hours.

The Gnat is a single-seat fighter, with a high wing and low-set tail plane, and is armed with two 30 m.m. cannons. The wing is built in one piece and fits into a slot in the top of the fuselage, being secured by bolts at four main points. Structurally, the wing is novel only by virtue of its extreme simplicity. It houses no fuel tanks, undercarriages or guns. The wing tips, which carry the navigation lights, are detachable.

Royal Navy develops transport stretcher

Following the adoption by the Royal Navy of the scoop net for rescue work at sea, trials have been taking place with a transport stretcher in which a patient can be lifted off the ground or the deck of a ship by helicopter and transported to base or to another ship for medical attention without being removed from the stretcher.

The stretcher has been developed at the Royal Naval Air Station, Ford, in Sussex, and was invented by the Commanding Officer of the Air/Sea Rescue Unit at this Station (Lieutenant-Commander John Sproule, R.N.) who also invented the scoop net.

The transport stretcher has a base similar to that of ordinary stretchers and attached to this is a tubular frame, with canvas sides, which is drawn up when the lifting wires are fully extended, thus shielding the patient from the wind and safely enclosing him.

This invention, which is expected to be adopted for general service use, will be valuable for air/sea rescue work by enabling patients to be transferred from ship to shore or from small ships at sea to larger ships which may have a Surgeon and hospital facilities on board.

It is also considered that it may have considerable application to Civil Defence work, as by means of a helicopter patients may be lifted out of inaccessible positions in badly damaged buildings.

The transport stretcher, when drawn up to the helicopter, rests abreast of the cabin of the aircraft and the patient in the stretcher may be attended, while the aircraft is proceeding to base, by any Medical Officer who may be in the helicopter.

On arrival at base the stretcher may be lowered to the ground and transferred to an ambulance.

It is also considered that the transport stretcher may be used to transport patients by jackstay from one ship to another.

Australian frigate to leave U.K.

The frigate H.M.A.S. *Queenborough*, after completing advanced anti-submarine training with the Royal Navy in Northern Ireland, will return to Sydney on December 19.

Queenborough, on a ten month cruise, joined ships, submarines, and planes of some NATO Powers in joint exercises.

Three navies and R.A.A.F. in exercise

Australian, British and New Zealand warships and R.A.A.F. bombers recently co-operated in an exercise extending from New Zealand to Malaya

Merchant ships and coastal wireless stations in Australia, New Zealand and Malaya also took part.

The warships made mock raids on merchantmen and other warships and the R.A.A.F bombers searched for the raiders and made mock bombing attacks.

The exercise was designed to provide training for the wartime control of merchant shipping in the region.

The R.A.N. maintained area headquarters at Sydney, Melbourne, Darwin, and Fremantle; the Royal Navy at Singapore; and the R.N.Z.N. at Wellington, New Zealand.

Naval Reserve officers helped staff these headquarters which maintained plots of shipping movements.

Sleeping annexe at Nowra

The Minister for the Navy, Mr. J. Francis, on October 17 opened a sleeping annexe to the White Ensign Club for men of the Fleet Air Arm at Nowra (N.S.W.).

He thanked the people who had provided the club, which enabled Servicemen to get a break from their working surroundings.

Navy airmen to receive wings

The first members of the R.A.N. trained at the new observers' school at H.M.A.S. *Albatross*, Nowra, will receive their wings on December 6.

The six men, aged between 18 and 23, will join an operational squadron.

Russian Navy's post-war growth

Russia has 350 modern submarines ready for immediate service, the First Sea Lord, Earl Mounthatten said recently.

Lord Mountbatten said this was the greatest potential threat that the Royal Navy had ever faced.

He said that the Russian Naval Air Service had 4500 aircraft.

Since the war, Russia had built 20 large first-class cruisers, more than 100 destroyers, and more than 100 large and small submarines.

New anti-submarine frigate for R.A.N.

H.M.A.S. *Quickmatch* has been commissioned by the R.A.N. as a third fast anti-submarine frigate at Williamstown, Victoria.

It joins *Quadrant* and *Queenborough*, who again will be joined next year by a fourth—*Quiberon* —which is undergoing conversion at Garden Island.

This was stated by the Minister for the Navy, Mr. Francis.

Good wishes to departing R.A.N. ship

On her departure from Kure, Japan, last month, H.M.A.S. *Condamine* received a signal from the Commander, Naval Forces in the Far East, Vice-Admiral W. M. Callaghan, U.S.N.

The signal read: "On your detachment from the United Nations Command all hands in the naval forces in the Far East join me in wishing you a pleasant cruise home and good luck always.

"Your presence in this force has attested to the warm affection which has long existed between our nations.

"We shall miss you."

Canadian ship fitted with underwater TV

When the *Labrador* sailed June 1 from Halifax for her 1955 northern operations, she carried the first under-water television equipment to be used by any ship of the Royal Canadian Navy.

The equipment, property of the Defence Research Board, will be used for surveys of underwater beach approaches and for studies of the behaviour of divers in cold water conditions in the far North.

The equipment is portable, which will enable it to be operated from one of the *Labrador's* boats for inshore or shallow water work.

It consists of a control unit, including a monitoring screen, to which the camera is attached by cable.

The camera is enclosed in a cylindrical case, measuring 23 inches in length and just under 11 inches in diameter.

The actual televising is controlled from the ship or boat, which is in audio communication with the diver. The latter has only to point the camera as directed from the control unit. The equipment operates on the closed circuit television principle.

This will be the first time that Royal Canadian Navy divers have operated underwater TV equipment.

TRAFALGAR—OCTOBER 21, 1805

By a Special Correspondent

THE Battle of Trafalgar was, in a way, more than the greatest victory won by British arms; it was at the same time the culmination of as brilliant a campaign as has ever been fought in British history. Two men stand out as the supreme architects of that great victory, William Pitt who set the stage with consummate strategical skill, and Horatio Nelson who crowned it by his brilliant tactical handling of the fleet as the moment of decision.

The story of the campaign which ended with Trafalgar is every bit as interesting as the story of the battle itself. We have to go back 16 months before that fateful October 21 when Nelson met Villeneuve off Cape Trafalgar to find the start of the campaign, to the day in 1804 when Pitt first put into operation his plan to form his "league" against Napoleon. He sent General Craig and an army to Italy to co-operate with the Russian general Lacy, and he sent Nelson and a fleet to the Mediterranean to cover them. And at the same time he used British sea power to draw so tight a net around Napoleon as to force him into making false moves to break out. The British army in Italy pinned Napoleon down to a campaign there, and from the moment that army sailed from England, the battle of Trafalgar was inevitable. Napoleon was forced, as Pitt meant him to be forced, into an attempt to invade England to break clear of the net.

The risk of a French invasion held no fears for Pitt, for from the start of the campaign there was put into operation the well-tried and impregnable system of sea defence built up through the centuries. A squadron in the Downs to watch the Texel (Keith), one in the Channel Islands (Saumarez), and the main Western Squadron off Brest (Cornwallis) was the traditional defence, and England was safe enough in such sure hands as those.

But Pitt depended on one more thing to bring his strategy to a successful conclusion. He had to rely on the instinctive knowledge of his naval commanders to do the right thing on every occasion, for only with their co-operation could the net around Napoleon be properly tightened. And throughout a whole year of baffling French moves, with a large number of admirals and captains in more or less individual commands who had often to make strategical decisions on their own, with no method of communication beyond a chance meeting with other ships, with no intelligence background such as they would have to-day, no naval commander ever put a foot wrong. The complete sureness of touch throughout, the innate strategical understanding of the campaign even by junior officers, was superb.

So the stage was set for Trafalgar. In April, 1805, Villeneuve sailed from Toulon with the French Mediterranean Squadron, picking up some Spanish ships on the way and expecting to meet Gautaume, with the Brest Squadron, at Martinique as laid down by Napoleon. But Gautaume was not there. He had been driven back by the blockading squadron into Brest. Nelson, on Villeneuve's heels, forced him to sail hurriedly from the West Indies, bound for Brest, but Calder met him on the way and drove him down to Cadiz. No sooner was he in harbour than Collingwood appeared, to keep him there with a close blockade. Nelson, worn out and sick after nearly two years at sea, returned to England for rest and recuperation.

News travelled slowly in those days, and it was early September before the fact that Villeneuve was at Cadiz was known at home. It was brought by Captain Blackwood, of the frigate *Euralyus*, who called at Merton to see Nelson on his way to the Admiralty. Nelson, detaining him for an hour while he put on his uniform, accompanied him to London and offered his services. They were at once accepted and on September 15 the great sailor again hoisted his flag in the *Victory*, sailing from Portsmouth the same day.

On the evening of the 28th, he joined Collingwood off Cadiz, no salutes being fired, by his order, in order that Villeneuve might not know that reinforcements had arrived off the port.

On October 10, Nelson sent to his flag officers and captains the famous memorandum in which he foreshadowed his plan of attack when the enemy came out. It embodied the "Nelson Touch," that the order of sailing should be the order of battle, so that no time need be wasted in forming a line of battle before the action. And with that memorandum he waited, in full confidence of ultimate victory, for Villeneuve to come out. That he would be forced to come out, he knew, for Nelson had studied Napoleon and his methods. Nelson had reckoned the enemy's strength at a maximum of 46 ships of the line. He himself could count only on 27, but the odds against him left him unmoved. For his plan embodied the lesson he had learned from Admiral Hood when he was a young captain, that a victory could still be won by an inferior force if it concentrated on an enemy's rear squadrons. In the days of sailing ships, it took a long time for the leading squadron, even even when not attacked, to tack and come down to the assistance of its friends in the rear.

It was on this plan, set out by Nelson, in his memorandum, that the battle was fought. The British fleet, attacking in two lines, brought the whole of their strength to bear on Villeneuve's centre and rear. Nelson, leading the weather line in the *Victory*, cut through the combined French and Spanish fleet, just above the centre of the enemy's line of battle, between Villeneuve's flagship, the *Bucentaure*, and the French *Neptune*. Collingwood, leading the lee line in the *Royal Sovereign*, cut through astern of the *Santa Ana*, flagship of the Spanish admiral de Alava. Two lines of British ships enveloped and overwhelmed the French and Spanish centre and rear and, as Nelson had foreseen, the van division was too long in tacking to come to their succour.

The fighting was fierce, for although Villeneuve was an irresolute leader, neither French nor Spanish ship was prepared to give up without a struggle. But the issue was never in doubt from the moment when the *Royal Sovereign* fired the first gun of the action at a minute or two after noon until the Spanish *Neptune*, a gallant fighter after the rest had given up, finally struck her colours a little after four o'clock. Nelson, struck down at the start by a musket ball fired from the mizzen top of the *Redoubtable*, lived just long enough to hear the news of his greatest victory, won by a tactical brilliance which cut through the older theories of fighting in line of battle. Seventeen enemy ships, out of a fleet of 33, had been taken, and one had caught fire and blown up. No British ship had been lost. Nelson, the British Commander-in-Chief, had been killed, but Villeneuve, the French, was a prisoner in the *Mars*. The British casualties amounted to 1678 officers and men, the French and Spanish to six times that number.

So ended Trafalgar. But it was more than the defeat of Villeneuve by Nelson, it was the defeat of Napoleon by Pitt. Its influence radiated far beyond the waters in which it was fought, for its ripples were felt as far away as Russia, Austria and Sweden, bringing new heart to Britain's allies in the struggle against the French. Finally and irrevocably, it cut Napoleon off from the sea, forced him to a purely continental strategy, and sealed his ultimate fate. It was of this campaign of Trafalgar that one of the greatest naval historians of all time wrote, "those far distant, storm-beaten ships, upon which the Grand Army never looked, stood between Napoleon and the dominion of the world." His words were exactly true, for it was the mighty weapon of British sea power, with a skill unexampled in the history of war, that brought Napoleon to final and inevitable defeat.

THE STATE OF THE R.A.N.
Continued from page 8

for 50 married ratings and their families has been completed at East Hills, near Sydney, and the quarters are now occupied. Quarters for 29 other married ratings and their families have been nearly finished there.

"Additional quarters for married personnel are approaching completion at the R.A.N. air station at Nowra (N.S.W.).

"A start has been made with the building of modern barracks at South Head, Sydney, to accommodate personnel at present housed in unsuitable huts erected at H.M.A.S. *Watson* during the war. Personnel who attend the new torpedo anti-submarine school at Lady Bay will also be accommodated in the barracks.

"Tenders will be called soon for the erection of the new wireless telegraph receiving station at Bonshaw, near Canberra, and for a brick recreation building for ratings serving at Harman.

"Other smaller works are to be put in hand at Coonawarra, the wireless telegraph station near Darwin and at the electrical school at Flinders Naval Depot.

"From this brief summary it will be seen that the R.A.N. has reached a high standard of efficiency, which, since the Second World War, has been exemplified on active service in Korea and in other commitments in different parts of the world.

"Warm tributes to the efficient services of Australian warships and aircraft and to the courage and skill of R.A.N. officers and men in the Korean theatre were paid by British and American officers of the highest rank, and wherever they have served since, and in whatever capacity, they have been given unstinted praise.

"The new equipment, improvements and re-organisation to which I have referred will increase the efficiency of the R.A.N. still further and will enable it to advance the reputation it has already won and of which itself and Australia as a whole are justly proud."

For Sea Cadets

NELSON—THE MAN

By Commander (S) J. D. Bates, V.R.D., R.A.N.V.R.

THE annual commemoration of Nelson's victory is first of all the tribute paid by the Navies and the peoples of the British Commonwealth to their greatest Admiral. It is also, although no doubt unrealised by many, an acknowledgement of the Commonwealth's dependence on its sea services. The Navy League of Australia is pledged to keep alive in the minds of the people of Australia the knowledge of this vital factor in their safety and the need to maintain it in these modern times.

Every year for a century and a half men have spoken on Trafalgar Day of Nelson, of his qualities as a man and as a sailor, of the spirit of his victories, of the tactics which won them, of the "Nelson touch" and of what his victories meant to England. There is very little that is new to say; one can only vary the way in which it is said.

The life of a great man is made up of highlights and shadows; periods of spectacular success and periods of quiet progress; sometimes, as with all of us, periods of depression contrasting with periods of exaltation. So it was with Nelson. The highlights of his life are known to many, the shadows to fewer; both phases went to make him the greatly loved man he was.

He was, of course, an individualist and like all such people his character was decisive. At an age which was early even for the period in which he lived, Nelson began to make his own decisions about his life and future. His family was a large one, his father a clergyman and not well-to-do. Thus one of the Rev. Nelson's problems was to find suitable employment for his sons.

It happened that during the Christmas holidays of 1770 news came to the family that an uncle, Captain Maurice Suckling, a Royal Navy Officer who had been on half-pay for some time, was appointed to command a ship called the *Raisonnable* which had been captured from the French some years earlier and was to be re-commissioned in view of the possibility of war with Spain.

Nelson and his brothers holidaying at their home, The Parsonage, Burnham Thorpe in Norfolk, were naturally interested and one can imagine a great deal of excited chatter about their uncle's appointment. However, young Horace (as his family invariably called him) saw something more than mere interest in the news. He saw a chance to start himself on a career; and in due course at his urgent request his father wrote to Captain Suckling telling him of his 12-year-old son's wish to go to sea.

Carola Oman, in her splendid biography on Nelson, records that in due course the surprised uncle replied in these words:

"What has poor Horace done, who is so weak, that he above all the rest should be sent to rough it out at sea, but let him come and the first time we go into action a cannon ball may knock off his head and provide for him at once."

Nelson was in no way put off by this bloodthirsty prophecy, and so it came about that at the age of 12 years and 3 months he was rated midshipman of the *Raisonnable*. He joined her in March 1771, but his uncle's forecast did not come about. Indeed, his first ship never went into action against the Spanish at all but was paid off four months after he joined her because relations with Spain had improved.

As has happened many time before and since in our Naval history, as soon as the danger of war recedes the Treasury pruning knife appears and economies have to be effected. It was as a result of this that it came about that Horatio Nelson made his first voyage to sea in a merchant ship. His uncle, when the *Raisonnable* was de-commissioned, was transferred to the command of the *Triumph*, a Thames guard-ship.

When the New Zealand frigate Hawea visited Sydney recently, members of the ship's company provided the odd contrast of appearing in the rig of Nelson's day. They were practising for the Trafalgar Day ceremony which was held at Nelson, New Zealand, on October 21.

Captain Suckling evidently did not think guard-ship duties offered much prospect for a keen young sailor and he took the highly unorthodox action of arranging for his nephew to get some time at sea in a merchant ship.

I like to think this was Nelson's own request, for it would have been characteristic. His first voyage was to Florida, Venezuela, and the West Indies, and it lasted for a year. It is recorded that Nelson came home filled with admiration for his shipmates and with a realisation of the part played by merchant ships in his country's safety as well as its prosperity.

For its own part the British Merchant Service can take pride in the fact that it gave to the greatest of England's Admirals his earliest deep sea experience and played its part in the formation of his character.

The next phase of his sea experience was certainly achieved through his own efforts and determination. He managed to get himself, although it was quite an unusual request for one so young, appointed to a North Pole expedition which the Government organised in 1773 to look into the possibilities of a north-west passage to the Pacific.

It was not a particularly successful expedition and the two ships involved, after several attempts to penetrate the ice-fields, returned to England in the autumn of the same year. To Nelson, however, the voyage was not a failure, for without question he had gained much valuable knowledge of his profession.

Just a month after his return from the Arctic he found himself appointed to sea again, this time as midshipman in a frigate bound for the East Indies. It was a long three-year cruise and in the course of it there was a good deal of time spent in fever ridden ports. The result was that towards the end of the cruise Nelson went down with a serious attack of fever which, from the description, was probably malaria.

He was so badly affected that he had to be shipped home as an invalid and there is no doubt he suffered from the after-effects for the rest of his life, for always when he was in a tropical port for any length of time he suffered a re-

currence of the fever contracted on this his first cruise to the East Indies.

High professional ability

Influence in Nelson's time was probably a much more potent factor in the success of a Naval officer's career than it is to-day. Nelson found on his return from the East Indies that his uncle, Captain Suckling, had become Comptroller of the Navy and in this capacity as head of the Navy Office his position was a most important one. Young Nelson undoubtedly benefited by getting another sea-going appointment quickly but his own ability and eagerness to learn was the major factor in his early progress.

When he had been to sea for the requisite period of six years Nelson came to the Navy Board for his examination as Lieutenant. His uncle was chairman of the interviewing committee but it was not until after the young officer had clearly demonstrated to them his knowledge and ability that Captain Suckling introduced him to his colleagues as his nephew.

One point which stands out clearly in a study of the records of his early life as a Naval officer is that his professional ability was far above the average. At 19 he was already outstanding as a sailor and it was only two lears later, at the age of 21, that he was promoted Post-Captain. There were of course men who thought to take advantage of his youth but they got short shrift. The Governor of the Leeward Islands on one occasion told Nelson during an interview that "old generals were not in the habit of taking advice from young gentlemen." To which the reply came without hesitation, "I have the honour, sir, of being as old as the Prime Minister of England, and think myself as capable of commanding one of His Majesty's ships as that Minister is of governing the State." (Nelson had the greatest admiration for the young Prime Minister Pitt.)

One other quality in Nelson's make-up must be mentioned, for it contributed as much to his success as a leader as did his professional ability. He was always most careful for the welfare of his sailors. When as a captain at the age of 25 he paid off the frigate *Albemarle*, the whole ship's company offered if he could get a ship to enter for her immediately. He wrote a few weeks later that "my time ever since I arrived in Town has been taken up in attempting to get the wages due to my good fellows for various ships they have served in the war. The disgust of seamen to the Navy is all owing to the infernal plan of turning them over from ship to ship, so that men cannot be attached to their officers or the officers care twopence about them."

Time after time in Nelson's career there is evidence of this thoughtfulness for the welfare of his men and his care of their health.

These are brief, perhaps unimportant phases in the early life of Admiral Lord Nelson. They seem to me to give insight into two of his greatest qualities: his unshakeable determination and his great humanity.

APPRENTICES FOR R.A.N.

Young Australians will shortly have the opportunity of training to become qualified artificers in the Royal Australian Navy.

The Minister for the Navy (the Hon. Jos. Francis) has announced that a Naval apprentice training school will be opened at Schofields (N.S.W.) early next year. One hundred apprentices will be entered each year and eventually not fewer than 400 apprentices will be under training ashore.

Boys selected to enter the school must be between 15 and 17 years and to have passed the sub-intermediate or intermediate examinations or their equivalents. They will be chosen by an interviewing committee. As soon as necessary details are finalised advertisements calling for applications will appear in the daily papers.

The boys will spend the first four years of their training at the school and the fifth year at sea, or in specialist instruction ashore.

[illegible] GET ITS [illegible]

Flags flew on August 16 for Royal Navy Day in the little French Alpes Maritimes port of Theoule-sur-Mer, and arriving there for the celebrations was the British warship responsible for inspiring the townsfolk into proposing the inception of this annual event—H.M.S. *Wakeful*, a frigate of the Mediterranean Fleet, commanded at the present time by Captain R. Casement, O.B.E., R.N.

Such a warm friendship exists as a result of previous long remembered visits by the ship, that Theoule asked the Admiralty to be allowed to adopt the *Wakeful*. Unfortunately the cessation of the wartime adoption scheme linking ships and towns, proved an obstacle and Theoule's kindly request could not be granted.

Affection for the *Wakeful* was so high, however, that the people of Theoule led by their Mayor (Brigadier G. Bertrand, D.S.O.) countered with the firm proposal that there should instead be a *Wakeful* Day every year on August 16. Finally a Royal Navy Day to be held on a date mutually arranged between the Commander-in-Chief and the Mayor was agreed when it was explained that it was impossible to assure that a particular ship of the Royal Navy could visit Theoule on the same day each year.

And so H.M.S. *Wakeful*, occupying such an esteemed place in local hearts, inaugurated an Anglo-French link believed to be unique. She spent eight days at Theoule.

U.K. SHIPBUILDING RECOVERY

Britain strengthened her lead in international shipbuilding in the third quarter of this year for the first time since 1952.

She is now building 34.2 per cent. of the world's new tonnage.

Figures issued by Lloyd's show that at the end of September Britain was building 346 ships of 2,147,057 gross tons, an increase of 65,523 tons compared with the previous quarter.

Britain (1,501,089 tons) also headed the list of countries adding to their domestic fleets.

The Admiralty confirmed on October 24 that the aircraft carrier *Implacable*, completed eleven years ago, is to be scrapped.

The *Implacable*, laid down in 1939, was made ready for service in 1944. She was refitted in 1948 as flagship of the Home Fleet.

Shipwright Artificers of the Royal Navy repairing a ship's boats.

MARITIME NEWS OF THE WORLD

From our Correspondents in
LONDON and NEW YORK
By
AIR MAIL

War role of the tanker

The R.F.A. *Tidereach*, 26,000 tons, which has just entered the Royal Naval Service represents a modern trend in the design and role of Royal Fleet Auxiliary vessels.

The aim of this big new tanker and her sister ships, *Tiderace* and *Tiderange*, is the support of the Fleet and the replenishment of its supplies under way at sea.

She is, therefore, fast, capacious (15,000 tons of fuel cargo) and fitted with the most modern handling gear for transferring food, stores, ammunition, oil and jet aircraft fuels by jack-stay and derrick to ships needing them.

The oil cargo can be discharged at extremely high rates to ships on either beam or astern and while steaming at high speed.

New gas turbine for tanker

A single 5500 h.p. gas turbine unit will soon be powering the 12,250 ton Shell tanker *Auris*, replacing its present installation of a gas turbo-alternator and three diesel driven alternators, Shell Tankers' Company have announced.

In 1951 the *Auris* became the world's first merchant ship to be powered by a gas turbine.

Now, after 15,000 hours active service across many seas, ranging from Venezuela to West Africa, the existing power unit of 1200 h.p. will be replaced by a direct drive transmission system.

Confidence in this new form of ship machinery is such that in addition to propelling the ship at sea the gas turbine will be used in port to generate the electrical power necessary to discharge the vessel's petroleum cargoes.

The new machinery will incorporate double reduction gearing with hydraulic means for reversing the direction of the propeller shaft. The propulsion system will also provide power for auxiliary purposes, both at sea and in port.

A model of the new gas turbine unit was shown at the recent Engineering, Marine and Welding, and Foundry Trades Exhibition in London.

Model cargo ship radio-controlled

Electronics have now entered the toy shop.

Designers and technicians of a U.K. firm who are the largest makers of toys in the world have produced a model cargo ship that is controlled entirely by radio signals.

No one hitherto has been able to offer a ready-made radio-controlled model, they say, though for some time the demand has been obvious from the number of people, young and old, who have gone to the trouble and expense of building their own.

The ship, beautifully modelled and accurate in every detail, is 20 inches long.

At the touch of a button or the turn of a knob on a small portable transmitter, it executes any maritime manoeuvre—alters course to any point between hard a-port and hard a-starboard, varies speed within the range full ahead to full astern, and can even be made to heave-to, which, as anyone with knowledge of radio-control will appreciate, is quite an achievement.

Control is effective up to 150 yards.

All the control apparatus of the ship can be used for other models —sailing boats, in which the actuators change the position of the sails according to wind directions, toy cars and other vehicles, and aeroplanes.

For aeroplanes, a special receiver is supplied for working the modeller's own actuators.

The limit of effective control is nine-tenths of a mile.

The system can also be used by conjurers to produce certain "magical" effects, and by photographers of wild life, who can use it to operate the camera shutter from a distance.

Long stay on atoll ends

Commander Clark, who was shipwrecked on Palmerston atoll in the Paradise Islands of the northern Cook group, is ready to sail his repaired yacht *Solace* to Rarotonga.

Commander Clark, a retired British Naval Officer, and a member of his crew have lived with the island's 74 Polynesian inhabitants for over a year.

They dragged Clark's yacht across the reef, beached her and replaced one side of the vessel with materials an R.N.Z.A.F. flying-boat dropped.

Ships for China "need escort"

Captain W. J. Munro, 54-year-old skipper of the 2036-ton British freighter *Helikon*, believes that a naval escort is essential for British vessels calling at southern Chinese ports.

Recently, *Helicon* steamed into Hong Kong undamaged after a Chinese Nationalist warship fired on her off the Communist port of Foochow.

The warship warned *Helikon* to keep clear of the area, but the freighter made Foochow the next day, escorted by the 1710-ton British frigate *Comus*.

Captain Munro said he would not have been able to enter Foochow without an escort.

Chief Officer Percy Bernhard said the warship suddenly appeared from behind Matsu Island, a few miles off the coast, and fired 10 shots.

Some of the shots landed very close on both sides of the ship, he said.

Better crew quarters in new ships

A new U.K. Ministry of Transport booklet describes a century of progress in the safety of ships and the well-being of seamen.

The booklet, "Seafarers and their Ships," contains high praise for the standard of accommodation in newer British ships.

Paying tribute to improved conditions in postwar ships the booklet points out that the average life of a cargo ship is perhaps 30 years, "and a ship built in 1930 will fall far short of what is now considered to be the right standard."

The Ministry has power to require ships to be brought up to modern standards but this is not always practicable in older ships.

In such cases, all sides—owners and men's representatives and the Department — get together and agree to the best possible conditions in the circumstances.

The biggest liners present the most difficult problem to the designer.

In the old days the stewards' "glory hole" might house 60 or 70 men; but in the new ships not more than ten stewards may be berthed together.

In ships built since the war, the booklet states, owners have competed to improve crew spaces so that it is possible, even in the largest liners, which carry 400 or 500 stewards, to berth a high proportion of men in four- or six-men rooms.

In smaller ships, very often, single rooms are now provided for each crew member, with good messrooms and recreation rooms.

A CAREER FOR GIRLS

Continued from page 9

happiness is essential to efficiency and good discipline, every WRAN recruit is entered on probation for 14 days. At any time during that period she may be released at her own request or discharged as unsuitable. The number of releases is very small indeed.

Subject to her attaining the required standard, a recruit WRAN becomes a qualified rating at the end of six months. From the day that she is entered as a recruit she is provided with a full issue of uniform and clothing and is paid an allowance to enable her to buy other necessary items.

After the initial free issue of clothing she receives 1/9 a day to maintain her uniform and clothing at an approved scale.

All candidates for entry to the WRANS are given an aptitude test. A candidate chosen to be a telegraphist should have reason for satisfaction and pride because it is necessary that she be intelligent, quick and accurate, and that she be prepared to work hard and concentrate on her duties during the 26-weeks' qualifying course at the Signals School at Flinders Naval Depot at Crib Point (Victoria).

Ability to type is desirable, but it is not essential. As part of her course at the Signals School the potential telegraphist will be taught to touch-type.

She will also be taught to send and receive wireless signals and will learn how to operate the most modern high-speed equipment. She will be instructed, as well, in the details of all other naval signalling systems and of the systems of the merchant navy and other commercial authorities.

After a WRAN telegraphist has graduated from the Signals School and has been appointed to H.M.A.S. *Harman* or to Coonawarra wireless station, she will send and receive messages to and from the Admiralty and to and from warships and merchant ships at sea. She will also send other messages to many parts of the globe, including among other places besides the United Kingdom, Malta, Malaya, Hong Kong, New Zealand and Ceylon.

After a WRAN telegraphist has served for three years she may qualify as a supervisor and take charge of a wireless office. Later she may become a signals instructor or she may qualify for promotion to officer rank, for officers of the WRANS are obtained from among serving ratings.

Besides providing interest and variety, service in the WRANS provides good companionship and the feeling that one is doing something very worth-while. Every young woman who joins the WRANS not only gains advantages for herself. She also relieves a male rating for other duties. This is a matter of great importance to the Navy when it is trying to build up its man-power, as the R.A.N. is at present.

APPRENTICE TRAINING

By a Special Correspondent

EARLY next year the Royal Australian Navy will open an establishment at Schofields (N.S.W.) for the training of youths who will become the Navy's Artificers and Shipwrights.

The establishment will provide the best engineering training in the Commonwealth and will open the way for young men to enter upon remarkably interesting and well-paid careers in which they will enjoy a variety of privileges.

Boys who are fortunate enough to be selected from among applicants from all parts of Australia will live at the establishment during their training, will be issued with uniforms and clothing and will draw generous pay. They will receive all these things free of any cost to their parents.

They will be given two end-of-term three-weekly periods of leave during each of the four years they spend at the school and will be provided with free transport to and from their homes and with a subsistence allowance while they are travelling. They will also receive a daily allowance in lieu of board and lodging while they are on leave.

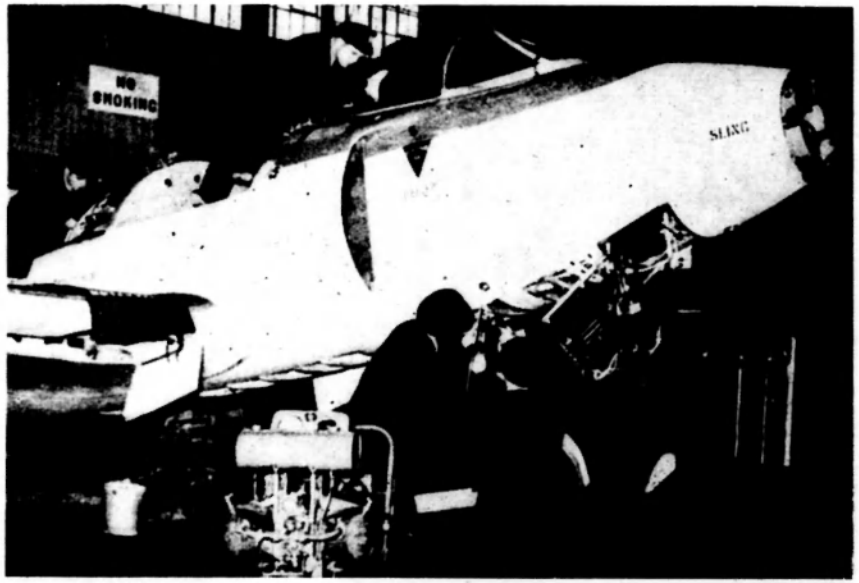
At the end of the fifth year of their training, part of which some of them will spend at sea, they will qualify as Artificers or Naval Shipwrights and will be advanced to a rate equivalent to that of petty officer.

Ratings in other branches of the Navy do not normally become petty officers until the end of at least their ninth or tenth year of service.

Once an Artificer or Naval Shipwright has attained the equivalent rate of petty officer he will have opportunities for further advancement, including advancement to commissioned rank.

Indeed, even before they have completed their training, apprentices of outstanding ability will be specially coached to enable them to compete for cadetship at the Royal Australian Naval College at which most of the officers of the Royal Australian Navy receive their initial naval training.

On completion of their training, other selected former apprentices will be considered as candidates for commissions in technical branches.



Skilled and reliable aircraft maintenance is vitally important to the Fleet Air Arm. Here aircraft artificers of the Royal Navy are seen working on a jet fighter aircraft. Similar work will be done by aircraft-artificers trained at the R.A.N. apprentice training school at Schofields (N.S.W.).

Ordnance artificers trained at the R.A.N. apprentice training school at Schofields (N.S.W.) will, among other duties, maintain torpedoes used by the Australian Fleet.

The advantages which the establishment will offer should prove attractive not only to ambitious boys, but should also appeal to parents.

To enter the establishment boys will need to be aged between 15 and 17 and to have passed the sub-intermediate or intermediate examinations, or examinations of similar standard.

While the boys are attending the establishment they will, in addition to other benefits, receive free medical and dental treatment and will be able to enjoy the sporting facilities and other amenities that are provided.

The first year of their training will consist mainly of lessons in academic subjects, such as English, Mathematics, Theoretical Science and so on, and instruction in elementary woodwork and metal work.

At the end of this period the apprentices will be allocated to various categories, namely those of engine-room artificer, electrical artificer, electrical artificer (air), radio electrical artificer, radio electrical artificer (air), ordnance artificer, aircraft artificer or naval shipwright.

For the subsequent three years apprentices will undergo normal practical and theoretical trade training and will also be instructed in the specialist training appropriate to their individual categories. Their general education will also be continued.

Future engine-room artificers, for instance, will be trained in marine engineering, electrical artificers in the maintenance of ships' high-power electrical systems and equipment, including electronics (radio and radar, etc.), electrical artificers (air) in the maintenance of electrical systems and equipment in aircraft, and naval shipwrights in ship construction and the maintenance of hull equipment.

On completion of four years at the training establishment, apprentices will have reached the standard of proficiency required by the apprenticeship commission.

The fifth year at sea or in a naval establishment will be spent in gaining actual experience with

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The Navy of To-day and To-morrow

By Vice Admiral R. R. Dowling, C.B., C.B.E., D.S.O.

First Naval Member of the Australian Commonwealth Naval Board and Chief of the Naval Staff

THE 150th Anniversary of the Battle of Trafalgar, which fell on October 21 this year, provides an appropriate opportunity to give some details of the Navy of to-day, of its duties in peace and war, its present activities, and its probable structure in the era of guided missiles and thermo-nuclear weapons.

The essential tasks of the Navy in peace and war are unchanged. Its first duty in peace is, by constant modernisation of equipment and technique and by intense training of personnel, to prepare for war. As two world wars have so clearly shown the Navy must be ready on D day, no later. A prerequisite to such readiness is, of course, a proper balance between trained manpower and material provision, including ships, equipment and reserves of stores and ammunition.

The Navy has many other important duties in peace, such as surveying the waters round Australia, the training of officers and men required on mobilisation, the maintenance and modernisation of a large number of ships held in reserve, flag-showing in the islands to the northward, patrol of pearl fishery waters and the maintenance of bases for operation in war. At the present time two ships are allocated to the Anzam Strategic Reserve, based on Singapore, and one ship until recently was in Korean waters as Australia's naval contribution to the United Nations armistice patrol.

The Navy's primary roles in war are securing our sea communications and denying them to the enemy, protecting our vital shipping routes, keeping our harbours open against minelaying attack by sea, supporting the Army in the field and guarding its flanks from seaward.

Australia's geographical position makes her long sea communications particularly vulnerable to attack by modern long range submarines. Within the range of land based aircraft the Air Force is charged with the protection of merchant shipping from enemy air-attack. Also within this range the Navy and Air Force have a joint responsibility for protection against submarine and surface attack. These responsibilities necessitate a close co-operation between the two Services.

Since the end of the Second World War the R.A.N. has been engaged in a vitally necessary programme of modernisation of ships and equipment. After 20 years or so, ships approach the end of their useful life and must be replaced by modern types.

Perhaps the most important part of this modernisation was the introduction of the Fleet Air Arm in 1948. The new and most modern aircraft carrier *Melbourne* will arrive in Australia early next year. She has been fitted out with the very latest equipment and will operate jet fighter aircraft (Sea Venoms) and the latest anti-submarine aircraft (turbo-prop Gannets).

The carrier is an essential part of a modern Fleet and is likely to remain so for years to come. It replaces the heavily-gunned battleship of the past, is vitally necessary for the protection of shipping from surface and submarine attack in the wide oceans and provides direct and concentrated air support for operations ashore and afloat where this cannot readily be given by shore-based aircraft.

Other important developments in the R.A.N. have been the building and commissioning of two Battle class destroyers, the laying down of three Daring class ships (the size of small cruisers) and the conversion of four "Q" class destroyers into up-to-date fast anti-submarine frigates. The building of four anti-submarine vessels of a new type is under way in Australia.

It may be asked why protection from submarine attack cannot be undertaken entirely by carrier-based or land-based aircraft. The answer is simple. The modern submarine has a very long range, a high under-water speed and the ability to detect a target and launch torpedoes without surfacing. It is capable of remaining fully submerged for days, and can be spotted from the air visually or by radar only when surfaced or obliged to "snort" or to show a periscope. Moreover the range of detection is greatly reduced when the sea is choppy or rough. By means of underwater detection-equipment carried in anti-submarine ships are remarkably efficient and deadly in all weathers.

Russia has a powerful Navy and is concentrating on building submarines in great numbers. It is estimated that she now has about 400 submarines of all types.

It is because of this potential threat that the emphasis in our Navy to-day, as in the Navies of all Western powers, is laid upon anti-submarine defence.

The Australian Navy is not large but it is efficient and well balanced. We, in common with other fighting Services in Australia, Great Britain and the United States, are short of manpower at present, and this is of major concern. However, I believe that many of the very best men in the Navy are making the Naval Service their career and will continue to re-engage for further service, whatever civil life may have to offer. There are no finer sailors in the world.

Now, what is the shape of things to come? What will be the structure of the Navy a few years hence? It must be remembered that, alone, Australia is incapable of defending herself against attack by a major power. The R.A.N. is designed not only as a small fleet which is fully mobile and flexible (and therefore of great value in a cold war), but is also designed to integrate with the Navies of our Allies. At the "drop of the hat" it could become an integral part either of the Royal Navy or of the United States Navy. At the present time the latter—in active and reserve ships—consists of over 100 aircraft carriers, 15 battleships, 75 cruisers, 730 destroyers and escorts, and a great number of smaller ships. We cannot afford enormous "attack carriers" or battleships or cruisers and we have no atomic weapons or as yet guided missiles, but we must play our part and be ready to integrate our ships.

Chiefly because of the thermo-nuclear threat, allied Navies will replace the concentrated "Task Forces" of the last war with small "Battle Groups," each group possibly consisting of one carrier, a guided missile cruiser and a squadron of escorts. Fleets will remain fully mobile and flexible and, by their ability to concentrate or disperse at will, they remain in the thermo-nuclear era, both an evulsive and hard-hitting fighting force. It is of interest to note that very recently Naval aircraft capable of carrying an atomic weapon have been successfully operated from the deck of a medium-sized aircraft carrier.

Helicopters fitted with "dunking sonar" (detection-equipment lowered into the sea) and with anti-submarine weapons, have an undoubted future in the protection of ships at sea. They could be carried either in warships or in merchant ships and be used as an outer screen.

After a period of experiment and hesitation, the outline of future Naval construction and equipment has emerged.

In the front of the Naval War Manual is a picture of a helmsman of a small ship of war. He stands with snow on his head and shoulders and in his face you see a blending of weariness and courage. Underneath the picture are the words "The greatest single factor."

The truth of those words is undeniable, as it has always been. Of what use are new ships and new weapons if we have not the men to serve them faithfully in peace and war? We of the Royal Australian Navy are proud of our Service and of the respect that Service has earned at home and abroad.

The New South Wales Division of the Navy League on October 6 held a luncheon in Sydney at which the guest of honour was the Commander-in-Chief, Far East Station, Vice-Admiral Sir Alan Scott-Moncrieff, K.C.B., D.S.O.—pictured above.

A-SUB REPORT IS DENIED

The Admiralty has denied reports that the First Sea Lord, Admiral Earl Mountbatten, was buying an atomic submarine in the United States for the Royal Navy.

British newspapers had published the reports.

The Admiralty said Earl Mountbatten was in the United States for another purpose.

"The all of things is an infinite conjugation of the verb 'To do.'"
—Carlyle.

Admiral Harries Appointed to Command the Fleet

Rear-Admiral D. H. Harries, C.B.E., R.A.N., at present Head of the Australian Joint Services Staff in the United States of America, will be appointed Flag Officer Commanding the Australian Fleet in June, 1956.

Rear-Admiral Harries' term in Washington will expire in December next, after which he will go to England to do the Senior Officers' Technical Course. This will last from the middle of January until the middle of March.

Rear-Admiral Harries entered the R.A.N. College in 1917 and graduated as a Cadet Midshipman in 1920.

He commanded H.M.S. *Seagull* from 1939 until 1940, during which period he was Second-in-Command of the 1st Minesweeping Flotilla, which operated along the Scottish coast. Later he was Executive Officer of H.M.A.S. *Shropshire* and in her took part in a number of assaults against the Japanese in the South West Pacific. Other wartime appointments held were Australian Naval Attache, Washington, (he was the first), and Deputy Chief of the Naval Staff at Navy Office, Melbourne. After promotion to Captain in 1945, post-war posts included command of the cruisers *Australia* and *Hobart*.

From 1950 until 1952, Rear-Admiral Harries had command of the Aircraft Carrier H.M.A.S. *Sydney*. he was awarded the C.B.E. for distinguished operational service in that ship during the Korea war and was awarded the Legion of Merit (Degree of Officer) by the United States Government.

Prior to assuming the appointment of Head of the Australian Joint Services Staff in the United States of America in 1953, Rear-Admiral Harries was Second Naval Member of the Australian Naval Board. He is a graduate of the Imperial Defence College, London.

Captain Oldham

Captain G. C. Oldham, D.S.C., R.A.N., has been appointed the Royal Australian Navy Liaison Officer in London. He will be given the rank of Commodore 2nd class while holding this appointment.

He will succeed Captain (S) P. Perry, O.B.E., R.A.N., who will attend the Imperial Defence College Course of 1956 at Camberley in England.

Announcing this appointment, the Minister for the Navy, Mr. J. Francis, said that Captain Oldham would take up his new appointment in November. He was previously the captain of H.M.A.S. *Sydney*. Captain Perry had been the Naval Liaison Officer in London since February this year.

Mr. Francis said Captain Perry would be the first officer of the R.A.N. Supply and Secretariat branch to attend the Imperial Defence College.

Surgeon-Captain Flattery

Surgeon-Captain J. M. Flattery, O.B.E., R.A.N., Command Medical Officer, East Australian Area, and Medical Officer in charge at the Balmoral Naval Hospital, Sydney, has been appointed an honorary physician to the Queen.

He was an honorary physician to the Duke of Gloucester when His Royal Highness was Governor-General of the Commonwealth.

Before he was transferred to Sydney last January, Surgeon-Captain Flattery was Deputy Director of Naval Medical Services at Navy Office, Melbourne.

He has been in the Royal Australian Navy since 1923 and has a distinguished war-service record.

In H.M.A.S. *Australia* in the Second World War he took part in the action off Dakar (French West Africa) and served in the Arctic and Antarctic regions and in the Atlantic, Indian and Pacific Oceans.

He was also in the *Australia* at Leyte and Lingayen when Japanese suicide aircraft attacked her repeatedly and one of them crashed on her bridge, causing deaths and serious casualties and extensive damage. It was for his services at that period that he was awarded the O.B.E. and mentioned in despatches.

REVIEWS

"Service Most Silent," by John Frayn Turner; published by Harrap (London).

This interesting and well-illustrated book of 200 pages has as its subsidiary title "The Navy's Fight Against Enemy Mines." It does not deal with the monumental task of minesweeping at sea in all its aspects. The author, who joined the Navy in '39, served during the war in the Mining Department of the *Vernon*, the Torpedo School and Experimental Establishment at Portsmouth. Writing with first-hand knowledge and experience, he has wisely confined himself to the more human and personal stories of a typical few of that small band of incredibly gallant officers and men who took their lives in their hands to dismantle and discover the innermost secrets of the German contact, magnetic, acoustic, "oyster" and other types of mines, most of them dropped by aircraft, used in such profusion during the war off our ports and along the coastwise shipping routes.

It was to discourage this investigation and to frustrate our counter-measures that a cunning and resourceful enemy fitted some of his mines with devilish booby-traps which might explode at the sound of a voice, a gleam of daylight through a small interior window, or the approach of the smallest magnetic substance. even a pen-knife or a bunch of keys. Not a few brave men lost their lives; but every new contrivance evolved for our detriment was eventually mastered and its antidote produced.

Service Most Silent is a thrilling story of cold-blooded courage and devotion, not in the heat and excitement of battle, but in prolonged and patient research in circumstances of the gravest peril.

German minelaying began with the outbreak of war, and rapidly extended. The situation worsened as the tale of ships lost and ships damaged mounted steadily. An article in *The Navy* of February last, "The Minewatchers," gave some indication of the mine danger, and it may be remembered that on the night of November 21-22, 1939, the Luftwaffe made an all-out effort by dropping parachute mines in the Thames Estuary, and off the entrances to the Tyne and Humber. All traffic, including that in and out of the Port of London, had to be stopped. Our vital sea arteries froze. London, almost entirely dependent upon its seaborne supplies of food, raw materials and fuel, would soon be starving and its factories and power stations idle.

The public knew little of this at the time, which was as well. But what types of mines were being used? Were they magnetic, acoustic, or a combination of both?

The answer was soon forthcoming, and an antidote found. A German 'plane, flying low, had been seen in the moonlight to drop two large objects into the sea off Shoeburyness in a spot which uncovered at low water. The tale of the recovery and stripping of these objects, which were magnetic mines, is an epic in itself, though it need not be repeated here. Mr. Turner tells the story in full detail. The dangerous work was carried out by four heroic men, Lieutenant-Commanders John Ouvry and Roger Lewis, Chief Petty Officer Charles Baldwin and Able Seaman Archibald Vearncombe, whose names deserve to be remembered. They were the pioneers, the forerunners, of an equally gallant band who recovered and immunised enemy mines all over the world.

Mr. Turner's exciting book is simply and straightforwardly written. I can only wish it the public interest it deserves. Among other things it shows, better than any official pronouncement in Parliament or elsewhere, why the Navy is so largely concentrating on the building of minesweepers of all types, and why the Admiralty have thought fit to establish its Royal Naval Minewatching Service, composed entirely of men and women volunteers.

"TAFFRAIL."

— From the London "Navy."

NAVY LEAGUE DIVISION IN A.C.T.

SEA power is of tremendous importance to Australia — an island people separated by thousands of miles from our export markets and the source of our imports, Commander John Bates told a Canberra meeting recently.

Commander Bates, who is Federal President of the Navy League of Australia, was speaking at the inaugural meeting of the A.C.T. Division of the Navy League.

The meeting elected these office bearers: President, Mr. G. E. L. Alderton, High Commissioner for New Zealand; Vice-Presidents, Mr. J. B. Howse, M.P., Mr. H. F. Ganter and Mr. Ronald D. Hull; Honorary Secretary and Treasurer, Commander A. D. McLachlan, R.A.N. (ret'd.).

Commander Bates said that the Navy League would make representations to the Government on naval affairs, and would form a unit of Sea Cadets in Canberra.

He hoped that Canberra would raise at least one unit of Sea Cadets who would be trained on Lake George.

Commander Bates said:

"There are few in this audience, I imagine, who do not have either an innate or an acquired belief in the importance of sea power to Australia. To an island people separated by thousands of miles from the markets in which their products are sold and from the sources of their vital imports, the ability to command the unhindered passage of the ships which carry their goods in peace and war, must be fundamental.

"It is possible I suppose that there may come a time when everything now carried across the surface of the seas can be carried in the air above them. But not, I think, in the foreseeable future.

"After all we are responsible largely for what is likely to happen to ourselves and our children; we cannot plan much farther ahead than that.

"In these times of change there are two things which have not changed, and the first is a geographical fact.

"The sea is both a highway and a barrier. It is many hundreds of years since those mariners from the Baltic and Scandinavia, who must incidentally have been good oarsmen, embarked on a sort of 'Come to Britain Movement,' crossed the North Sea without — I repeat, without—opposition, and landed in Britain to settle there. Some of these chaps changed direction on the way—perhaps their navigation was not so good—and found themselves sailing up the Seine into the heart of France where they founded the beautiful province of Normandy. From there a few generations later, somewhat Gallicized, they sailed again, this time across the English Channel—again without opposition—and joined forces with their cousins who had found England the first time. These men left behind them a maritime tradition that has shaped history. For nearly 900 years no enemy has again succeeded in crossing the sea barrier which surrounds the British Isles in order to land and conquer.

"The British people, for their part, have had no difficulty in doing so on many occasions. I need hardly remind you that because of the knowledge and practice of sea power they and their Allies were able in 1944 to use the same sea barrier as a highway for the greatest assault of sea borne forces on a well defended land that has ever taken place.

"So I submit to you that this fact of geography, the sea as both barrier and highway, has not changed although the weapons necessary to secure it undoubtedly have.

"The second thing which has not changed is human nature and in particular, with all respect, the nature of Governments. When the emergency or the danger has passed we heave a sigh of relief and get down to thoughts of decreased taxation, (or not, as the case may be). In any case we leave the security of our first line of defence to look after itself and divert our energies and money to something more obviously pressing.

"This is a thing that has happened time and again in our history. It was the thing which 60 years ago led to the formation of

Continued on page 31

Federal President of the Navy League, Commander John Bates, at the inaugural meeting of the A.C.T. Division. On the right of Commander Bates is Mr. John Howse, M.P., and on his left, Commander A. D. McLachlan, R.A.N. (Retd.).

THE MARINE HAD A YOUNG BUT ATTENTIVE AUDIENCE

When the visiting British cruiser H.M.S. Newcastle was opened for public inspection in Sydney last month children flocked on board. Royal Marine Edward Stephens is shown here explaining the working of a 4-inch gun to some of them.

For Sea Cadets

THE NAVY ANNEXES AN ISLAND

By a Special Correspondent in London

A brief announcement by the Admiralty on September 21 was the first intimation that Her Majesty's Survey Ship "Vidal" had successfully completed an operation which added to the territorial possessions of the Crown.

THE announcement stated tersely: "By authority of Her Majesty, a party was landed from H.M.S. *Vidal* (Commander R. H. Connell, D.S.C., R.N.) to take possession of the island of Rockall. A flagstaff was erected on the island, the Union Flag was broken, and a commemorative plaque was cemented to the rock."

The Admiralty added: "The annexation of this island was necessary since it is within the sector of the sea which is likely to come within the orbit of the projected guided weapons range in the Hebrides."

Rockall, a name made familiar by reason of its use to indicate a geographical area in weather bulletins, is a small rocky islet situated in position 57 degrees 36 minutes North, 13 degrees 46 minutes West, nearly 200 miles West of the Hebrides.

H.M.S. *Vidal* is the most modern surveying ship in the Royal Navy. She was built at Chatham Dockyard and was first commissioned in 1953. Her complement consists of 16 officers (six of whom are hydrographic surveyors) and 168 men (15 of whom are surveying recorders).

For the Rockall operation the ship's small Hiller helicopter was replaced by a Westland Sikorsky Dragonfly, which carries, in addition to the pilot, a winch operator and one passenger.

On September 13 the ship arrived at Greenock on completing a two months' oceanographical cruise in the Barents and Greenland Seas. Two days later the ship sailed from Lough Foyle and ran a line of soundings to a point 15 miles south-westward of Barra Head and thence to Rockall.

The ship had reached a point off Rockall by dawn on September 17, but conditions were then unsuitable for flying as a strong westerly wind was blowing and spray was passing high over the rock. During the night, however, the wind fell and a heavy swell diminished. The meteorological officer forecast two or three hours of calm or light winds, but as wind speeds of 50 or more knots were reported by ships to the westward, it was clear that time for a landing was limited.

At daylight on the 18th the ship closed the rock and its helicopter, piloted by Lieutenant R. Leonard, D.F.C., R.N., took off with Sergeant Brian Peel, Royal Marines, at 8.37 a.m. A report from the *Vidal* states laconically: "It was anticipated that the many birds said to use the rock as a resting place might hamper the pilot while hovering, but in the event there were very few birds in residence, rather to the disappointment of the bird-scaring party who were ready with rockets and saluting guns."

Sergeant Peel was successfully lowered from the helicopter by means of the winch cable and landed on Hall's ledge, which is about 20 feet by 6 feet and situated on the South side of the rock about 12 feet below the summit. He was followed by Corporal Alexander Fraser, Royal Marines, by Mr. James Fisher, the eminent scientist and ornithologist, who had been commissioned by the Admiralty to investigate certain scientific aspects of the islet, and by Lieutenant-Commander D. E. P. D. Scott, R.N., the first lieutenant, who was in charge of the landing party.

During the operation the *Vidal* was hove to about 800 yards from the rock with a boat's crew standing by in case of emergency. A flagstaff was erected and the Union Flag was hoisted at 10.16 a.m. B.S.T., Lieutenant Commander Scott formally taking possession of Rockall in the name of the Queen, by making use of the following words — "In the name of Her Majesty Queen Elizabeth the Second, I hereby take possession of the Island of Rockall."

The *Vidal* steamed slowly past the Rock and fired a salute of 21 guns.

Meanwhile a plaque to record the annexation was cemented in the rock and ring bolts were secured near the waterline to facilitate future landings. Spikes were driven into the rock to help climbers.

On completion of the ceremony Mr. Fisher and the two Royal Marines collected rock samples of lichen and other specimens, which will be examined by scientists who require information about this virtually unknown islet.

At 11 a.m. the party ashore signalled their readiness to return and by 11.40 a.m. all had been brought back to the ship by helicopter. The helicopter had then made 18 flights in all. By 2 p.m., when the ship was homeward bound the wind had reached 30 knots and there was heavy rain and low visibility.

The inscription on the brass plaque which was left on Rockall reads:

By authority of Her Majesty Queen Elizabeth the Second, by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith, etc., etc., etc., and in accordance with Her Majesty's instructions dated the fourteenth day of September, One thousand Nine hundred and Fifty-five, a landing was effected this day upon this island of Rockall from H.M.S. "Vidal." The Union Flag was hoisted and possession of the island was taken in the name of Her Majesty.

Captain Becher in U.K.

Captain O. H. Becher, D.S.O., D.S.C., and Bar, R.A.N., captain of the aircraft carrier *Vengeance* which recently arrived in England from Australia for reversion to the Royal Navy, will do a course at the Imperial Defence College, London, next year.

He has been captain of the *Vengeance*, which was lent to the Royal Australian Navy by the Admiralty pending the completion of H.M.A.S. *Melbourne*, since August, 1954.

Captain Becher, who is a graduate of the Royal Australian Naval College, had an outstanding record in the Second World War and also served with distinction in the hostilities against the Communists in Korea.

He was awarded the D.S.C. in the Second World War for his good services while in H.M.S. *Devonshire* during the withdrawal of troops from the Namsos area of Norway. He was awarded a Bar to the D.S.C. for his part in the attack on the Japanese base at Sabang (Sumatra) while he was captain of H.M.A.S. *Quickmatch*.

He was captain of H.M.A.S. *Warramunga* when he was awarded the D.S.O. for his services in the Korean campaign.

Before he was appointed captain of the *Vengeance* he was Deputy Chief of Naval Personnel at Navy Office, Melbourne, and later Deputy Chief of the Naval Staff.

NEW N.L. DIVISION

Continued from page 28

the original Navy League in England. It is as necessary to-day as it was then for those of us who know by instinct or by experience the fundamental importance of sea power to Australia to bring our influence to bear on Government and people through the power of public opinion.

"That is the prime purpose of the Navy League and I appeal to all of you to make the voice of the Canberra Division a clamant one which will reach the ear of whatever Government may happen to have the power of decision in Parliament House in the years to come."

Tracing the history of the Navy League, Commander Bates said that the Sea Cadets were now partly Navy's responsibility and a set of Regulations for this joint administration was issued in 1953 by Navy Office.

He added: "The financial responsibility which the Government undertakes is limited, however, and Navy League must still raise funds by voluntary effort to ensure that this vital work goes on. But is would be ungracious not to acknowledge here the increasing interest the Government is showing in the Sea Cadet Corps. In particular I would like to recall that both in 1952 and 1953 the Government through the Naval Board shared with us the expense of sending a Sea Cadet contingent to England; in 1952 to an Empire cadet training course, and in 1953 with the Coronation contingent. This exchange of visits is, incidentally, one of the things the Navy League is most anxious to develop."

BRITISH MEMORIAL TO MERCHANT SEAMEN

Relatives from all over the world of Merchant Navy men who died in the war, will congregate in London for the unveiling by the Queen, on November 5, of the Merchant Navy War Memorial at Tower Hill.

This memorial is the only tombstone for the 24,000 merchant seamen who lost their lives during the war.

In addition to the innumerable invitations to official representatives of countries, some 15,000 invitations to attend the unveiling have been extended by the Imperial War Graves Commission to the next-of-kin of the men.

APPRENTICE TRAINING—
Continued from page 23

naval machinery and equipment. At the end of this period the apprentice will be a fully qualified artificer.

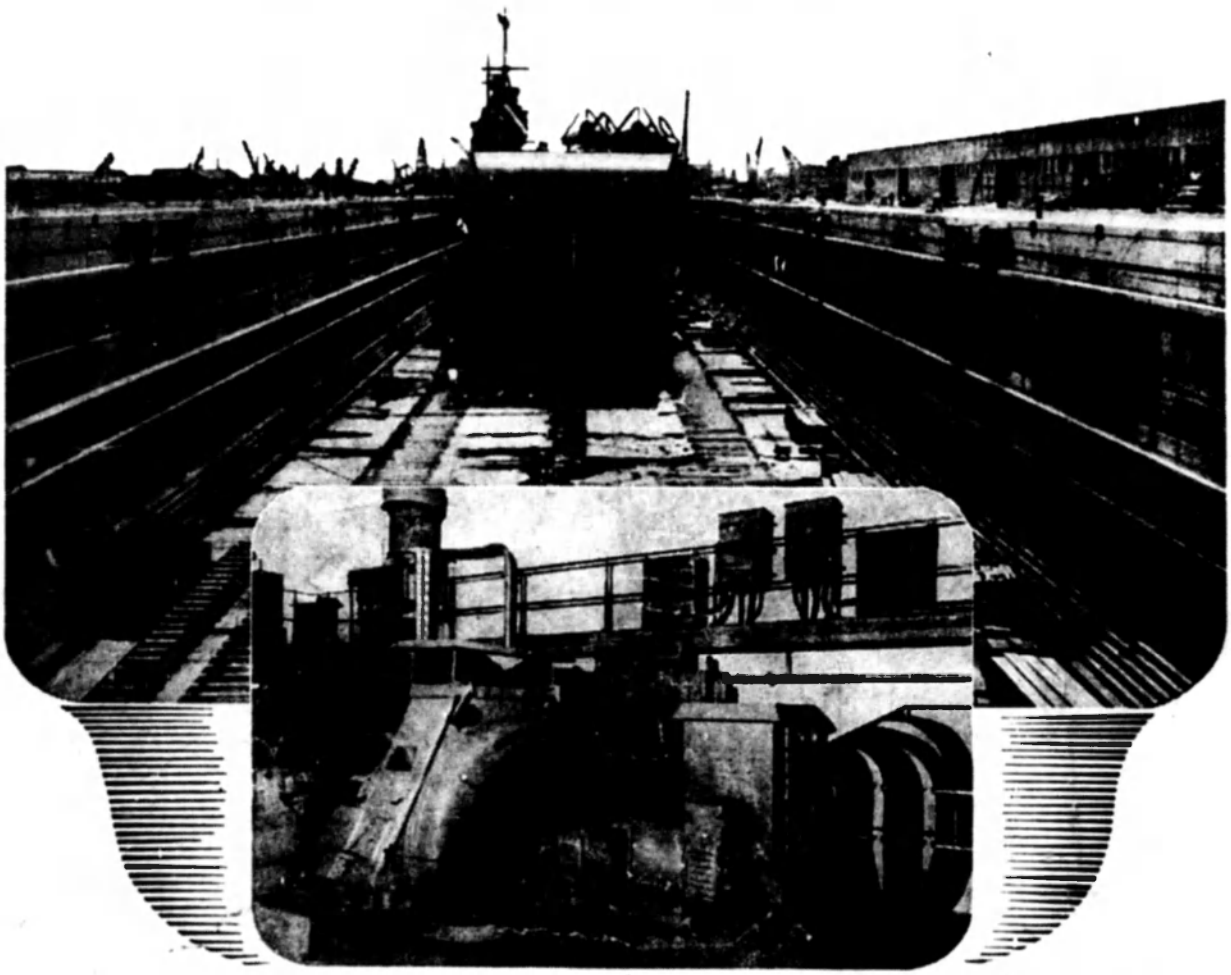
Upon artificers depends to a large degree the seagoing and fighting efficiency of the Australian Fleet and the Fleet Air Arm. Because of this their work demands from them a high standard of skill and a full sense of responsibility and consequently, if a boy is selected for entry to the establishment, he will have good establishment he will take part in grounds for a feeling of satisfaction and pride.

After he has passed out of the the full life of the Navy to which every day brings novelty and variety. He will travel between different ports of the Commonwealth, and may, as so many officers and men of the Royal Australian Navy have been, be sent in his ship to countries overseas.

But, above all, he will be able to set out upon a well-paid and attractive career in which he will find many things to interest him, and if, at any time, he decides not to re-engage in the service, he will, nevertheless, have acquired wide knowledge and high-grade skill which will enable him to earn a good living in the civil community.

G.E.C.-B.G.E.

ACHIEVEMENT



The entry of the first capital ship, H.M. Aircraft Carrier "Illustriour," 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

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THE NAVY

AUSTRALIA'S MARITIME JOURNAL DECEMBER, 1955 1/6

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is Your Guide

to Naval Affairs

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THE LAST OF THE BATTLESHIPS

The passing into reserve of Britain's largest battleship, H.M.S. *Vanguard*, is a step forward to the new role which the Royal Navy will be called upon to play.

This is the view of British naval writers who recently commented on the Admiralty's announcement that H.M.S. *Vanguard* is to go into reserve.

The London "Daily Telegraph" says that by taking this decision the Admiralty's main consideration has been the serious shortage of manpower in the Royal Navy.

The newspaper says "By putting *Vanguard* into reserve they will be able to call upon her complement of some 1,650 officers and men to provide trained crews—and technical ratings in particular—for future experiments in connection with a guided missile trial ship.

"The Reserve Fleet is not the shipbreakers' yards, and no doubt *Vanguard* will be put into commission again when some further use can be found for her. But her retirement means the passing of a great age in the history of the Royal Navy, that of the traditional capital ships. There will be no more 'battleships of the line'."

The "Yorkshire Post" commented: "We are able to dispense with immediate availability of our five battleships only because the only other Power maintaining effective battleships is the friendly United States."

The "Post" points out that in the Soviet bloc only Russia has any battleships, and those number three ships, all over forty years old.

The newspaper says that Soviet naval policy so far has not provided for capital ships on Western lines. Russia has no effective battleships and, so far as is known, no aircraft-carriers.

The "Glasgow Herald" points out that both the United States and Russia are believed to lead Britain in guided missiles.

The "Herald" says that Britain has a great deal of leeway to make up in the development of atomic devices and rockets.

In line with the new needs of defence in peacetime the men and money needed to maintain a battleship such as *Vanguard* will be made available for commissioning a guided weapons ship.

The naval correspondent of the "London Times" says that guided missile development in the American Navy is about three years ahead of that in the Royal Navy.

He says: "Since the war the Admiralty has constantly stressed the importance of anti-submarine and anti-mine defence, but these, in American naval thinking, take second place to offensive policy.

"The American Fleet is now built around the carrier striking force, and, when the Forrestal-class carriers come into service, mobile strategic air bases will operate jet bombers heavier than the R.A.F. Canberra. The carriers themselves will be protected by guided missile cruisers, the first two of which will be ready this autumn, and screens of escort destroyers.

"The ship-based air striking forces will be supplemented by large submarines, probably nuclear-powered, capable of launching surface-to-surface guided missiles against targets inland.

"Battleships, it is believed, will before long be armed with atomic shells for their heavy guns."

The correspondent says that if the Royal Navy can, by ruthless pruning of non-essential expenditure, increase its efficiency at the same time as it reduces its bulk and cost, then it will regain the prestige which it for so long commanded in the United States.

HOME FOR CHRISTMAS

Sydney will warmly welcome home the officers and men of the Tribal-class destroyers *Arunta* and *Warramunga* and the fast anti-submarine frigate *Queenborough*. These Royal Australian Navy ships will arrive in Sydney in company on December 19—in time for most of the ships' companies to go on leave and be with their families at Christmas.

For many months past they have carried the flag into some of the most important areas of the world, in terms of Western strategy. The *Arunta* and *Warramunga* have served with the strategic reserve in Malayan waters since July, and the *Queenborough* has been taking part in anti-submarine exercises against the most modern type of long-range submarine in the N.A.T.O. area.

Their tour of duty has demonstrated that Australia is sincere in her willingness to meet her commitments to her allies. It has shown to the Australian people the true, flexible role of the R.A.N., which is to safeguard Australia's frontiers not merely along her seaboard, but in the sea, distant from Australia's shores.

Of importance also has been the conduct ashore of the ships' companies, which the Australian Minister for the Navy, Sir Eric Harrison, so warmly praised.

"The excellent conduct and bearing of the ships' companies have enhanced the already high reputation of the Royal Australian Navy and have won for Australia much additional friendship and goodwill," Sir Eric said.

The ships will leave Singapore, in company, on December 4. The *Arunta* and *Warramunga* will be relieved in Malayan waters by the Battle-class destroyers *Anzac* and *Tobruk*, which left Sydney on November 16.

The Navy Can Play its Part in Strategic Air Operations

By E. Colston Shepherd

UNTIL THIS YEAR there were few signs that the Royal Navy would be entrusted with strategic air operations. Indeed, if the equipment of the Fleet Air Arm were the only available evidence, there would be grounds for the assumption that the Navy could have no part in weakening an enemy by striking at the sources of his power. Apparently, all the emphasis is laid on tactical duties and particularly on dealing with enemy submarines at sea and in coastal waters. Those tasks are of great value in relation to the defence of a country which depends largely on seaborne traffic and obviously must receive close attention but there are other spheres in which naval aviation should be able to make a valuable contribution and there have been recent assurances concerning plans for the Royal Navy in these matters.

At the end of July, the First Sea Lord spoke of the project to form "battle groups" of an aircraft carrier, a cruiser and a squadron of destroyers, and of the intention that the carrier's air squadrons should act when required as a "single strategical weapon." In the absence of aircraft specifically designed for such purposes, that must be taken to indicate a policy and no doubt the specifications for the aircraft required have been issued to the aircraft industry.

The United States Navy is evidentally preparing itself, with two-engine shipborne bombers, for tasks more ambitious than the protection of convoys and the destruction of submarines at sea; and it is making those plans knowing that a land-based bomber force exists and has acquired almost unlimited range with the help of a system of flight refuelling.

If a navy's responsibilities were restricted to dealing with submarines, much attention would still have to be devoted to attacking their bases, for even atomic-powered submarines must return to port to take on supplies and to re-arm. Nothing disturbs an operational plan more thoroughly than to leave them without a base at the end of a tour of duty. Hitler made the mistake of establishing submarine bases within easy reach of land-based bombers. Another enemy, especially if he had access to Asian seaboards, might not make the same error; and the land-based bombers would then find they needed all their available range to reach the lairs of the submarines.

What applies to submarine bases would apply to reaching docks in some parts of the world where an enemy might be loading arms, supplies and troops for offensive expeditions, or unloading raw materials for his war industries. One of the difficulties associated with long-range bombing is that conditions may change radically between reconnaisance and the delivery of an attack. With the new bomber aircraft which are coming forward, high speed will help to diminish that risk, yet every increase in the distance the bomber has to travel to its target adds to the operational hazards and makes success less certain. For example, there can be no sure radio aids to navigation at long range over an ocean or over an alien continent. Airborne radar can help over land; it is of little help over water and the bomber's navigator is forced to depend on celestial navigation and on being able to draw his own weather map as the flight proceeds to determine wind strength and direction.

The acquisition of a fleet of fast, long-range bombers, even though they be equipped with all the latest radar apparatus, is no guarantee that they can be sent with confidence against any target within their radius of action irrespective of the nature of that part of the earth's surface over which they must pass. The biggest of the new bombers of the United States are described as inter-continental bombers and they are practised over the Atlantic and over Arctic regions. Theoretically, they are capable of comparable action over the Pacific but they are rarely exercised at extreme range in these regions.

New British bombers have a radius of action of about 2000 miles. In time of war that might be increased on the least favourable course over an ocean to perhaps 3000 miles by refuelling in the air. The flight to the target could be expected to occupy six hours if navigation were good and more if a poor landfall were made and time had to be spent in searching with the help of radar for the objective. These bombers are unarmed. They rely for safety on their speed and height. For finding and bombing their target they have to depend on their own radar and a whole new technique of bombing has to be worked out and made familiar to the crews in practice. The satisfactory working of somewhat delicate and complicated apparatus in the circumstances of war has to be ensured. We have yet to see what degree of accuracy can be achieved by the new generation of long-range bombers. Nobody pretends that delivering the jet bombers to the squadrons is the end of preparations for offence in strategic air warfare of the future.

Probably the chief reason why naval aviation was so little considered in the scheme for attacking shore targets was the vulnerability of aircraft-carriers. They were peculiarly vulnerable to attack by land-based aircraft largely because shipborne fighters were inferior in performance to land-based fighters. They were vulnerable like all big ships to submarine attack. In both respects the prospects of the carrier are improving. If vertical or near-vertical take-offs and mat landings should prove feasible in the next year or two a carrier's air defence could be made fully equal to the best on land. Already the carrier is assured of fighter aircraft that could be expected to make a first-rate show against most land-based aircraft; and that is not all.

Guided missiles launched from the ground will become available to the R.A.F. in the near future for the defence of certain urban and industrial areas. In those areas they will be the only weapons against enemy aircraft although fighter aircraft may have to verify radar sightings and identify the incoming aircraft as hostile for the missile batteries before they are launched. A similar defence, adapted perhaps as to range, could doubtless be made to serve the carriers.

All this means that marauding enemy aircraft would need to stay high in the neighbourhood of a carrier as they will have to do near defended areas on land and would need to be equipped with guided bombs if they were to hope to make a hit and also to be skilful in using them while remaining well out of range of the carrier's own defensive armament. In this age, the scales are being tipped less against the carrier in air warfare than they were 10 years ago.

In the matter of defence against submarines, the carrier is likewise better placed. Some of the processes of detecting and locating submarines remain secret but they are known to mark a great advance on the methods of the second world war and the carrier's chance, both of avoiding a surprise attack and of striking the first blow, is certainly improved. The part which the helicopter should play in finding the submerged enemy is known and there are other aids besides. Furthermore, the navies of the world look forward to underwater duels between submarines as a new element in this form of warfare and as an answer in some degree to the modern ability of the submarine to remain submerged for long periods. If war should come, the carrier may prove to be by no means so vulnerable as it was thought to be towards the end of the war. In that event, many duties might fall to it which were formerly supposed to be outside its scope.

There is no need to press the improved prospects of the carrier too far. Where targets are within easy range of the land-based bombers and can be reached without having to plot a long course

Night View of Royal Navy Cruiser

H.M.S. Newcastle, photographed at night in Sydney Harbour during her recent visit.

over water, most of the strategic bombing must naturally fall to the land-based bombers. There are certain parts of the earth where bomber bases are few and where targets would have to be approached on ocean courses. Asia and the Pacific afford numerous examples of such a situation; and Asia is the part of the world where trouble might most readily occur and be most awkward to deal with.

A dozen hypothetical situations might be described in which it would be simpler and probably more effective to let a carrier stand in at 500 miles' range and deliver a bomber attack on a shore objective, rather than to dispatch a bomber force from a land base 2000 miles away, with little but sea in between. This likelihood has evidently not escaped the attention of the United States Navy; it has probably not been overlooked by the Admiralty, now more silent than ever about its plans, or by the Chief of Staffs Committee. What has happened in the present phase of development is that priority is rightly given to anti-submarine measures in the face of Russia's great expansion of her submarine forces. Any presumption that it marks the limits of the Fleet Air Arm's project would be unwise and, in the light of the First Sea Lord's statement, is unjustified.

Nearly everything (except the big bombers) which is available to land-based air forces can now be taken to sea in fleet carriers. This includes radar for detection of various kinds and for "illuminating" not-too-distant targets so that guided bombs can be released by the ship's aircraft at a safe range. It includes ground-to-air missiles and, as they come to be more fully developed, it will assuredly include ground-to-ground guided missiles. It can include aircraft of the highest efficiency and the means to operate them in a great variety of circumstances. For these reasons, there should still be work for the shipborne bomber to do when long-range ballistic missiles have superseded most of the land-based bombers in the defensive scheme. The carrier too will have its rocket or ramjet projectiles in that period but special tasks in strange and unusual places will still remain for the strategic element in the carrier fleet to undertake.

—*From the London "Navy."*

NEW BODY TO ADVISE ON H.M.S. VICTORY

TO advise the Admiralty on measures necessary to preserve H.M.S. *Victory* — Nelson's flagship at the Battle of Trafalgar —a committee was recently set up consisting of representatives interested in the maintenance of its fabric in view of its historical significance.

This committee, the H.M.S. *Victory* Advisory Technical Committee, is composed of representatives of the National Maritime Museum, the Society for Nautical Research, and the Admiralty, and has as chairman Professor A. E. Richardson, President of the Royal Acadamy.

The preservation of H.M.S. *Victory* for posterity dates from the 1920s, when the Society for Nautical Research made a successful appeal for public funds to restore the ship to her Trafalgar condition and save her from being scrapped. As a result of this appeal more than £100,000 was raised and work was put in hand which continued until 1929 without cost to Navy votes.

When this work was completed, a *Victory* Committee was set up at Admiralty instigation, its members being nominated by the Society for Nautical Research. This Committee advised the Admiralty on problems concerning the continued preservation of the ship until 1938, when the responsibility was transferred to the Trustees of the National Maritime Museum.

Due to World War II, it was some years before this new arrangement operated, and after the war it was clear that a considerable amount of work needed to be done. The trustees of the National Maritime Museum recommended the Admiralty to set up a new panel of experts. This panel came into being in 1946, its members being nominated by the National Maritime Museum. The panel made a report in 1950, and many of its recommendations were acted upon.

H.M.S. *Victory* is the ultimate responsibility of the Admiralty. She was a ship of the Royal Navy and is at present flagship of the Portsmouth Command. Since the "Save The Victory" fund paid for restoration in the 1920's the cost of maintaining the ship has come from Navy votes.

Many problems associated with the *Victory* call for expert advice not always available within the Admiralty service, and for this reason the new committee has been set up.

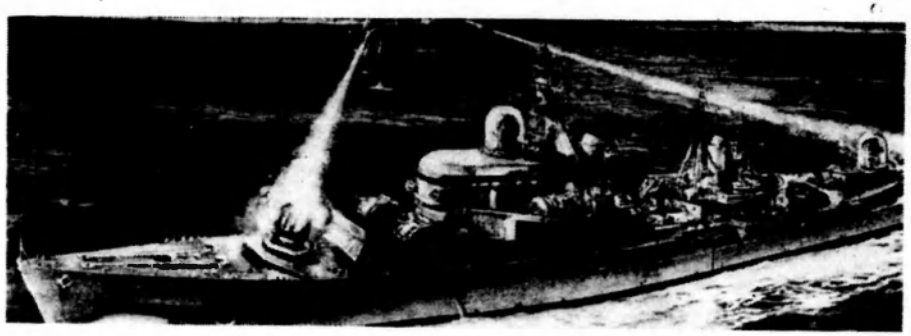
For many years the ravages of the death-watch beetle have been making great inroads into the timbers of the ship. Damaged parts have been treated with insecticide and in recent years the ship has been fumigated.

These methods of treatment, while reducing the rate of deterioration, are not a permanent cure. Technical and scientific advisers have considered what additional steps might be taken, including the possible use of radiation, but this was found impracticable owing to difficulties of application and danger to humans.

The committee has held its first meeting and will meet again towards the end of this year.

Guided Missile— An A.A. Weapon

By Rear-Admiral G. P. Thompson, C.B., C.B.E.—in London



An artist's impression of a guided missile ship. Rear-Admiral Thompson, however, says it is unlikely that ship-to-ship guided missiles will be used for some years. The immediate role of the guided missile, he says, is for defence against aircraft.

THE United Kingdom Government has latterly been subjected to much criticism for abolishing the Anti-Aircraft Command structure without having any defence system available to replace it, and for the delay in replacing our ageing cruisers.

The answer to both these criticisms is to be found in the development of the high-flying supersonic bomber. With bombers flying at 60,000 feet, it would be absurd to continue spending money and manpower for the defence of the United Kingdom on anti-aircraft guns with a maximum range in the region of 35,000 feet—whether or not another defence system is available in lieu. For a similar reason, it is essential that the ships which are to replace our cruisers should have an effective defence against high-flying aircraft.

The building of these replacement vessels has therefore been deferred until an anti-aircraft guided missile, developed in this country, has been successfully tested next year in the Girdle Ness—a maintenance vessel now being equipped for that purpose.

The First Lord, however, in his memorandum accompanying the current Navy Estimates, made it clear that the new ships will have a gun armament for surface gunnery and bombardment. A system, he added, would be developed "in the years ahead" capable of operating a ship-to-ship weapon from the same equipment. The new vessels will be so designed that their gun armament can be replaced by the ship-to-ship guided weapon system as soon as it becomes available.

Thus there is no question, as some Members of Parliament and other people seem to think, of actions between surface ships being fought in the near future with guided missiles. One recalls in this connection the criticism in Parliament that the completion of the three "Tiger" class cruisers —which are to be armed with four 6-inch guns of a new type, with a very high rate of fire—is a waste of money. Even though they may be too far advanced to have an anti-aircraft guided missile armament, it is necessary that these three powerful vessels should be completed to help close the gap and to provide the Royal Navy with at least three cruisers capable of dealing with such ships as the "Sverdlov" class on reasonably equal terms.

No doubt the fact that two United States heavy cruisers have recently been converted to "guided missile firing" has contributed to the prevalent misunderstanding. But they still retain their forward heavy guns as their main armament. It is only their anti-aircraft guns which have been replaced by guided missile launching platforms. In fact, these two ships merely provide evidence that the United States has retained her lead in the development of guided missiles, which she started four years before this country. They might well be regarded as "prototypes" of the kind of guided missile ships the Royal Navy will have in commission in three or four years' time.

The United States, it is true, has a reliable ground-to-air guided missile with a range of some 25 miles and there is some justification for asking why we do not purchase a supply for the air defence of the United Kingdom. The Government's reply — that we need to bring down bombers well out to sea—does not seem

wholly convincing. For with installations at suitable positions around our coasts (instead of around cities and industrial areas as in the United States) which can launch missiles with a range of 25 miles, bombers would certainly be destroyed well out to sea. Rather would it appear that we must expect more concentrated attacks than the Americans, and that our guided missiles must be capable of selecting their targets.

In any event, neither in the United States nor in Britain is there yet a reliable and effective ship-to-ship guided rocket "just around the corner." Submarines and other ships can certainly launch guided flying bombs — such as the American "Regalus" —but this missile is subsonic and no more immune from anti-aircraft defence measures than is a piloted aircraft.

Indeed, the question arises whether for the next 15 to 20 years, by which time the bomber may have been driven out of the sky by the guided missile, there is any real requirement for ship-to-ship missiles, other than the shell from a gun.

Unless and until the ships of our potential enemies are known to have them, it would seem that cruisers—and the vessels which will replace them—can carry out their Task Force escorting and trade protection duties quite effectively with their guns.

Ultimately—in 15 to 20 years' time—other considerations may well arise. If we are then to gain the full advantages of seapower from an enemy who does not seek to control the sea communications, it may prove necessary to build "capital" ships large enough to carry both a smaller ship-to-ship guided missile and the large rocket with a range of 500 to 1000 miles.

* * * *

"He conquers twice, who upon victory overcomes himself."

—Francis Bacon.

VALUABLE TRIALS BY H.M.S. CUMBERLAND

THE Royal Navy's trials cruiser, H.M.S. *Cumberland*, returned to the United Kingdom recently after five months spent in a valuable trials programme in the Mediterranean.

Highlights of this were:—

Development trials of the new rapid-firing anti-aircraft gun turret. These have given experience of its seagoing performance and will enable the design to be perfected before it is accepted for naval service. About 1500 rounds were fired.

A measure of the accuracy of the two weapon-control systems under trial was that more than fifty per cent. of the twenty-five-foot airborne targets used were damaged or shot down even though shells were non-bursting. About 6500 rounds of medium calibre and 4000 rounds of forty-millimetre ammunition were fired at air and surface targets. No. 728 Squadron, Fleet Air Arm, which provided air co-operation, made more than 1000 simulated attacks on the ship with fast jet aircraft or towed targets.

A small quantity of radioactive liquid representing atomic bomb fall-out was sprayed on to the ship's structure to test the efficiency of the washdown system. Precautions ensured that danger to the ship's company was less than from a luminous watch. Washdown trials were witnessed by two U.S. Navy representatives.

Three new compasses were under trial. Their accuracy was measured weekly under rigorous conditions. Improved methods of astro-navigation, in particular a method which gives a position from a star sight one minute after observations, were completed.

A fibre glass hull of a twenty-five foot motor boat withstood the hard wear experienced during the season. A 3 in 1 whaler proved to be a good seaboat and general-purpose motorboat. It competed in the round-Malta sailing race and proved suitable for pulling and recreation.

Survival suits intended to prevent casualties from immersion were tested to see whether carrying them interferes with action duties. Plastic cooks' aprons, seamen's collars, an automatic draught indicator, and various anti-atomic devices were also under trial.

Twenty-one officers of the Royal Naval Scientific Service and Admiralty Photographic Service were on board for recording and current analysis of trials data. Nearly 7000 feet of paper records from automatic recorders and about eight miles of film were used and processed. Examination of records, including one and a quarter million photographic frames, has enabled naval officers to determine the progress of trials.

The White Lady of the North

By J. H. O'C.

AT the end of World War II most of the older small ships of the R.A.N., which had served valiantly in peace and war, were disposed of. At this time war and warships were not fashionable and the ships were disposed of almost secretly. One of these ships was H.M.A.S. *Moresby*, a ship which during her lifetime had been as famous as any eight-inch, three-funnel cruiser and had in fact achieved a more lasting reputation.

Built by Barclay Curle Ltd. in 1918 as a sloop of the Racehorse class and christened H.M.S. *Silvio*, she had not resembled the more usual naval vessel of that time, for her design incorporated certain "Q Ship" features ("Q Ships" were built as submarine decoy ships). To the Sydneysider she looked most like an overgrown Manly ferry, for she appeared to be double ended, with two equal height, straight masts, two rounded bridges, and a funnel midway between them.

In 1925 the R.A.N. required another surveying vessel to assist the aged *Geranium* in the big job of charting our coastal waters. The *Silvio*, renamed the *Moresby*, was the vessel for the job. She arrived here that year under the command of Capt. J. A. Edgell, R.N., with Lieutenants J. A. Collins, R.A.N., and H. A. Showers, R.A.N. (later Flag Officers) among her officers.

She immediately began surveying the Cumberland Passage, in the Great Barrier Reef waters, and continued until 1929, when shortage of funds caused her to be paid off.

In 1933, with the deterioration of international affairs, money was found for her to begin the strategic survey of the approaches to Port Darwin, a job which she continued until 1939. In these years the *Moresby* became known as the "White Lady of the North" as she toiled resplendant in the white and buff colour schemes of the survey service. Her lines, although unusual, had a gracefulness of their own.

When Japan entered the war, her saluting guns gave way to an old Mark, four-inch gun and the taut wire machine on the quarterdeck was replaced with depth charge racks and throwers as *Moresby* went back to her original role of submarine hunter. She escorted convoys round the east coast of the continent in the dark days when our merchant ships were being sunk only a few miles from Sydney Heads.

By the end of 1943 the coastal waters were somewhat safer and a greater need was felt for her services in charting the north coast of New Guinea. This time the "White Lady" went north with a new make-up of Chicago blue and task force grey, which was more becoming to her role as flagship of Task Force 70.5.3. Her force consisted of several A.M.S. (corvettes as they were then known) and several smaller tenders, all engaged in hydrographic duties under the U.S. Seventh Fleet.

In 1944 she returned to her pre-war ground in the approaches to Darwin. Here she acted as "master" ship, doing the triangulation, with five "slave" ships (A.M.S.) sounding, all at fixed and accurate radar ranges from her, thus covering a large area in a short time.

The surrender of the Japanese forces in Timor was signed on her quarterdeck in Koepang harbour. After this she returned to make the preliminary survey of Yampi Sound coincident with the commencement of the mining of iron ore there by the B.H.P. Future events showed a prophetic twist of fate here.

In 1946 she returned to Sydney and joined in the general paying-off of the R.A.N. which was then proceeding. After being in reserve for a short time she was offered for disposal, was purchased by the B.H.P., and towed to their Newcastle works for demolition. To do this they cut her down deck by deck until about two feet remained above the water line. Then the hulk was towed up river, where the remaining 420 tons of the hull was beached and hauled in 30 ft. stages on to the bank.

However, several parts of the ship are still to be found. Possibly the biggest pieces intact are the main steering engine and telemotor, which are now used for instructional purposes at the Newcastle Technical College.

The hydrographic service demands long hours of hard work. The *Moresby's* motto was "Je le ferai durant ma vie" (I will work all through my life). She lived up to it. The many men who served in her must often look back with mixed feelings to the old "White Lady."

ALL-AUTOMATIC SUBMARINE PLAN FOR U.S.A.

Press reports from Washington, quoting a U.S. Defence Department source, claim that the United States Navy plans to switch to an all-atomic submarine programme.

The reports state that the Navy has included funds for nine atomic submarines in its proposed budget for the year beginning next July.

NEWS OF THE WORLD'S NAVIES

U.S. Navy tender rescues airmen

The United States seaplane tender *Floyds Bay* rescued four of five crew members of a U.S. Air-force C119 ("flying boxcar") aircraft which crashed into the sea 650 miles east of Honolulu on November 9, after an engine failure.

The crew parachuted into the water before the aircraft crashed.

Two of the men were rescued on the night of November 9, after being in the water for five hours. Two others were picked up early the following morning.

The airmen used torches to attract the attention of a Pan-American Airways plane, which relayed a message to the Navy tender. The *Floyds Bay* made a 75-mile dash through rain and wind to make the rescues.

New A.-S. Aircraft in production

Production versions of the Short Seamew, a light, two-seater, anti-submarine aircraft, are now coming off the assembly line.

A Royal Air Force Coastal Command unit will be equipped with the first of them early next year.

Features of the Seamew's design are simplicity, ease and economy of manufacture and maintenance, and short take-off and landing runs.

Polish gift to Royal Navy

Captain Ludwik Janczyszyn, Senior Officer of the Polish Naval Squadron which recently visited Portsmouth, called on the Board of Admiralty to present a gift from the Polish Navy to the Royal Navy.

He was received by the Vice-Chief of Naval Staff, Vice-Admiral W. W. Davis, and handed him a skilfully-fashioned model in amber of a fully-rigged, three-masted sailing ship. The ship is mounted on a mosaic amber base with a silver plate inscribed in Polish: "From the Command of the Navy of the Polish Peoples' Republic, 1955."

The Polish Squadron visiting Portsmouth consisted of O.R.P. *Burza* and O.R.P. *Błyskawica*.

The Royal Navy arranged receptions at Portsmouth for representatives of all ranks of the ship's companies of the two Polish destroyers within a few hours of their arrival at that port. For the Commanding Officers of the *Błyskawica* and *Burza* there was a dinner-party by the Commander-in-Chief Portsmouth, Admiral of the Fleet Sir George Creasy, at Admiralty House, for other officers a reception in the Wardroom of the Barracks and for coach-loads of ratings parties ashore.

After a wreath-laying ceremony at the Naval War Memorial on Southsea Common, there were organised tours of Naval ships and establishments in the Portsmouth area. During a visit to London, wreaths were laid on the Cenotaph in Whitehall. There was also a football match and a civic entertainment at Portsmouth. On the last day of the visit after a reception by the Lord Mayor of Portsmouth, there was an "At Home," followed by a dinner-party in the *Błyskawica* to return British hospitality.

R.A.N. Band records Australian marches

The Band of the Royal Australian Navy recently visited the E.M.I. Record Studios, Sydney, and recorded ten marches for release on the Columbia label.

Among the titles recorded was "Australiana," a medley including "Waltzing Matilda," "Gundagai," "Bourke Street On Saturday Night," and "Yarrawonga."

This medley, and others in the series, was arranged by Bandmaster Lieutenant G. Hooker, R.A.N.

"Condamine" returns from Korea

The Royal Australian Navy frigate *Condamine* returned to Sydney on November 14 after nine months' service on armistice duties in the Korean area.

About 500 friends and relatives of the ship's company welcomed her at Garden Island.

The frigate arrived a day ahead of her original schedule. The reason was that three days out of Hong Kong a rating became ill and the *Condamine* made a dash to Darwin—reaching there a day early. The rating was landed and taken to hospital for an operation.

The Acting Minister for the Navy, Sir Eric Harrison, has announced that the *Condamine* would be the last R.A.N. ship to be sent direct from Australia to the Korean area during the armistice period. Future R.A.N. commitments in Korean waters would be met by R.A.N. ships serving with the strategic reserve in Malayan waters, he said.

Sir Eric Harrison added that the Australian people could be justly proud of the part that R.A.N. ships had played in the Korean campaign. From the beginning of hostilities in June, 1950, until the declaration of the armistice in July, 1953, nine ships of the Royal Australian Navy, including the aircraft-carrier *Sydney*, had served in the foremost operational areas, and, since the armistice, at least one ship of the Australian Fleet had always been engaged in Korea on patrol and other duties.

The services of the ships and their officers and men, both during the fighting and since, had been highly praised by senior British and American officers. For their services while fighting was in progress 60 officers and men of the Royal Australian Navy had been awarded decorations.

New R.A.N. vessel to be commissioned

The Royal Australian Navy boom defence vessel *Kimbla*, which was recently completed in the shipbuilding yard of Walkers Ltd. at Maryborough, Queensland, will be commissioned there on December 13.

She will leave for Sydney the following day and reach her destination on December 20.

The *Kimbla* is of the same class as the *Kangaroo*, *Koala* and *Karangi*, which did valuable work in laying and servicing heavy anti-submarine nets across Australian harbour entrances during World War II.

Boom defence vessels can be usefully employed in peace-time because they are constructed for handling heavy weights, such as moorings and long wires. Their crews are specially trained in that work.

Admiralty statement on H.M.S. "Vanguard"

The manpower released by placing H.M.S. *Vanguard* in reserve will be used for the commissioning of a guided weapons trial ship and to retain in commission certain small ships of particular value to the Fleet at present.

The Admiralty announced this recently when it confirmed the decision to place the *Vanguard* in reserve.

It added: "The *Vanguard* will be maintained at a high state of readiness so that she can be put into active service with a minimum of delay should circumstances so require."

U.S. report on plan for space satellite

The U.S. Navy has signed a contract with the Glenn L. Martin Co., of Baltimore, to design, build and operate the launching gear for an earth satellite, according to the Baltimore "Evening Sun."

President Eisenhower announced several weeks ago that the Government was sponsoring an attempt to launch such a satellite into outer space during the 1956-57 International Geophysical Year.

Experts thought a satellite about the size of a basketball would be sent 300 miles or more in the air.

The "Evening Sun" said formal announcement that the Navy has signed a 20,000,000 dollar (£A 8,928,000) contract with the company might come after a high-level scientific meeting later this month.

DESIGNING THE "PERFECT" SHIP

By Peter Duff, Editor of "The Shipping World"

IT IS OFTEN said of warships, and of civil and military aircraft, that as soon as a new design appears in service it becomes obsolescent, if it is not already obsolete. The same kind of argument can be applied to many merchant ships, so great has been the rate of technical progress in recent years. Increasing international competition is the spur which makes shipowners anxious to take advantage of every technical improvement which will enable their ships to be just that much more efficient and economical to operate than those of their competitors.

Shipbuilders, marine engineers and naval architects, as well as the planning and operational departments of the large shipping companies, have all been busily engaged since the end of the war in attempting to design and produce the most efficient merchant ship for its designed purpose.

The technical advances which have been made in merchant ship design during recent years have fallen, as they must, into three main categories—improvements in the efficiency and performance of the hull, the propelling machinery, and the cargo-handling arrangements.

So far as the hull is concerned, naval architects are continually striving to find improved hull forms, with the aid of detailed research programmes carried out in experimental tanks; and such institutions as Lloyd's Register of Shipping and the British Shipbuilding Research Association are actively engaged in investigations into such problems as the behaviour of all-welded ships is service. The protection of the hull against fouling and corrosion is also an important sphere of research activity in which considerable progress has recently been made. New compositions and coatings, as well as chemical processes, have been evolved for the protection of oil cargo tanks, for example, against corrosion, thus prolonging the economic life of the ship and reducing maintenance costs; while various methods of cathodic protection—involving the passing of weak electric currents through the hull and the use of sacrificial anodes—are being increasingly used.

The resistance to corrosion of aluminium alloys is being put to good use in merchant ships, for example as cargo heating coils in oil tankers.

Aluminium alloys have several properties which are being exploited in merchant ships much more successfully than before the war, mainly as a result of the development of specialised welding processes. One of the principal advantages of the use of light alloys is the saving of weight which can be achieved, thus either improving stability or increasing cargo-carrying capacity.

This particularly applies to the reduction of top hamper by using aluminium for such items as funnels, masts and life-boats, as well as complete deckhouses and superstructures. The American passenger liner *United States* is the most notable example so far, since some 2000 tons of aluminium alloys were used in her structure; but it is understood that nearly 400 tons will be used in the Norwegian liner *Bergensfjord*, which will be launched on the Tyne in July.

In passenger liners, the most notable development since the war has probably been the fitting of stabilising fins. The first merchant ship to be so fitted was the Channel steamer *Isle of Sark* before the war; and this anti-rolling device was developed during the war for naval purposes. After the war development continued with the installation of stabilisers in the *Falaise* (another Channel steamer); but the first large ship to be fitted was the P. & O. liner *Chusan*.

Now Denny-Brown stabilisers have come to be regarded almost as a standard requirement for passenger liners; and even existing ships are being modified to take them, as the *Queen Elizabeth* was earlier this year.

When it comes to propelling machinery, steam turbines still predominate for the higher powers, for improvements in this field have enabled much higher temperatures and steam pressures to be used, enabling even the largest tankers and ore carriers to be driven through single propeller shafts at high speeds. Designers of diesel engines, however, have also made great advances in the last year or two, by producing turbo-charged engines which can develop a proportionately higher power for the same number of cylinders. Diesel engines have also been successfully adapted to enable heavy fuel oil to be used, thus showing considerable advantages in the matter of fuel costs, compared with diesel oil.

Both the turbo-charged diesel engine and the steam turbine, however, will soon have to face growing competition from new forms of marine propulsion. Of these the gas turbine is in the most advanced stage of development. For several years the Shell tanker *Auris* has had a gas turbine driving one of her four electric propelling motors, and she has made an Atlantic crossing using this as the sole means of propulsion. In a few years, there can be little doubt that the marine gas turbine will be widely adopted for merchant ships; yet by that time it is probable that some form of nuclear engine will be hard on its heels.

Improvements in the methods of and arrangements for the efficient handling of cargoes are of special importance in the commercial cargo ship.

For special trades, much ingenuity has been shown in making the best combination of cargo-handling arrangements ashore and afloat. At one extreme, for example, there is the ship which has no cargo-handling equipment whatsoever on board, relying solely on shore equipment at the terminals; on the other is the "self-unloader," which is entirely independent of terrminal facilities.

In the general cargo trades, progress is being made with the use of containers for seagoing traffic, and with what the Americans call "roll-on roll-off" types of merchant ship, in which loaded trailer vehicles enter and leave the ship through end ramps or side doors. This is a logical development of the wartime LST types, and it is interesting to note that the British Transport Commission intends to develop this type of ship.

The use of "pallets" combined with fork-lift trucks, not only on the quayside, but also inside the ship's holds, also promises improvements in the speedy and economical handling of cargo ships in port.

Liquid cargoes have their special problems, but great improvements in the rate at which the new "super-tankers" can discharge their cargoes have taken place through the installation of pumps with a high output capacity.

A recent development which affects the safety of tankers is a system of pressurising the crew accommodation, to prevent the admission of any inflammable mixture of gas. Another demand which is being satisfied is for ships suitable for the sea transport of liquid gases, such as methane and butane, which is carried under pressure in specially designed vessels.

Despite the remarkable growth of air transport in the last few years, there is no falling off in the general demand for passenger ships; but owners and designers of passenger ships are fully aware of the challenge that civil aviation represents.

It is of particular interest, therefore, to follow the current trends in passenger ship design. In this connection, undoubtedly the most advanced design for many years is that of the Shaw Savill liner *Southern Cross*, which has recently completed her maiden voyage round the world, outwards via the Panama Canal to New Zealand and Australia and homewards via the Cape.

The *Southern Cross* is outstanding in several ways. In the first place she is by far the largest ship of her size (20,203 tons gross) to be designed purely for the carriage of passengers, without any cargo whatsoever. The object of dispensing with cargo was to eliminate delays in turnround in port, as a result of which the ship could be scheduled to perform an extra round voyage every year. The absence of cargo holds and hatches obviously made it possible to enlarge the space devoted to passengers and improve its layout; but there still remained the problem of machinery spaces, which in such ships have always been about amidships. However, the absence of cargo also made it easier to remove the main propelling machinery to the after end of the ship, as in the normal oil tanker, since problems of trim could be solved by the adequate distribution of alternative oil fuel and water ballast tanks throughout the bottom of the ship.

Thus the *Southern Cross* has a distinctive appearance, with her twin-screw geared steam turbine machinery, and hence her single large funnel, placed right aft, leaving the whole of the rest of the ship entirely devoted to passenger accommodation, with clear deck areas and large public rooms entirely uninterrupted by cargo spaces or machinery uptakes or casings.

Some of the space released, it is true, has been used up by air conditioning and ventilating plant, but this is entirely to the benefit of the passenger, whose living spaces are thus entirely air conditioned. It goes almost without saying , of course, that the *Southern Cross* is equipped with stabilisers, with a powerful evaporating plant to convert sea water into fresh water, with electronically controlled oil and water separators, and with many other refinements which were practically unknown before the war.

The *Southern Cross*, although a passenger ship, is a good example of the increasing trend towards specialisation in merchant ship design to-day, a trend which has economic advantages and which has been assisted in great degree by technical advances in materials and marine engineering technique.

—*From the London "Navy."*

In the Kaiser's War

A Story of Life in a "Sea-Cow"

By Colonel J. Macnair-Smith, R.M., Retd.

THE summer of 1914 found me serving as Captain of Marines in H.M.S. *Argyll*, 3rd Cruiser Squadron,* under command of Rear-Admiral Pakenham. On 26th July, we were lying at Portland awaiting further orders, as our summer programme had been suddenly suspended. On the 27th we left, proceeding up Channel at high speed. As we passed through the Straits that evening, the darkened ships were in marked contrast to the blazing lights of Dover. The citizens and holiday-makers had no idea that the "Warning" signal had been given, which meant, for us, instant readiness for war.

We were all thoroughly keyed up, and looked forward eagerly to early developments. War routine had started, and officers and men were "Watch and Watch," i.e., one watch closed up at guns, etc., the other standing by, guns loaded with shell, charges close at hand.

Our immediate destination was our war station, Scapa Flow, in the Orkneys. Our squadron consisted of the four "New Country" class cruisers, *Antrim* (flagship), *Devonshire*, *Argyll* and *Roxburgh*, 10,000-ton ships of decidedly good appearance, with their raking masts and funnels—four of them—and handsome lines. On account of their looks they had been selected on more than one occasion for Royal Escort duty; but having said this, there was little to say in their favour as warships. They lacked speed and gun-power, while presenting a large target. Officers and men numbered about 700—seamen, stokers and marines, and specialist ratings. Being mainly coal-burning, we carried a much larger proportion of stokers than a modern oil-burning ship.

The first "Alarm and Excursion" was a report that German ships had been sighted in the Shetlands, and our squadron was dispatched at full speed to search the channels. On the way, opportunity was taken to rid the ship of some of the superfluous inflammable material. There was much "Pretty pretty" on board, and a ruthless raid was made on all ornamental, or other not strictly essential, woodwork. In some cases this was carried to a ridiculous extent. Things were thrown overboard which later had to be replaced. Our route from Scapa to the Shetlands must have been clearly marked by a broad line of boxes, chests of drawers, writing tables, doors, chairs, ornamental woodwork, and gratings: and I believe the local trawlers reaped a richer harvest than fish by following in our wake and picking up well-made Admiralty furniture, etc. I remember particularly the cheers of the men when the "loader" went over the side; and the dismal old "squeeze box" (harmonium) made a fine splash. The "loader" was looked on more or less as an instrument of torture, though very necessary for keeping the 6-inch guns' crews exercised in loading with the heavy 100 lb. shells. It was certainly a cumbersome article, liable to cause splinters on the upper deck, but it was so essential that very soon after another had to be made.

After tearing through Yell, and other silent "Sounds" (channels), to the consternation of the sheep, ponies and possibly a stray shepherd on the lonely islands, we returned to our base, having disposed of one of the many myths flying around.

War had now been declared, and we entered on a period of patrolling, at slow speed, in the North Sea. According to visibility, the ships of our squadron would steam up and down, opened out to an interval of 15 or 20 miles. Should anything be encountered, we were to stop and examine.

As I had a good knowledge of French and German, I had been detailed by the Captain as "Principal Boarding Officer," and I studied carefully the Admiralty book on the subject. We were surprisingly hampered in our actions by an outcome of one of those Hague Conferences—forerunners of the League of Nations—known, I think, as the Treaty of London, carefully designed by foreign nations to shackle our war activities at sea, and foolishly swallowed by us. As boarding officer, these miserable regulations, most of which were cancelled before the war had lasted many weeks, seemed to clog every effort to gain intelligence, or maintain secrecy.

For instance, we had carefully unscrewed from the stern the big brass letters which formed our name; but, on boarding a neutral steamer, the boarding officer was required to state the name of his ship, and Captain, as well as to write other useful information in the steamer's log.

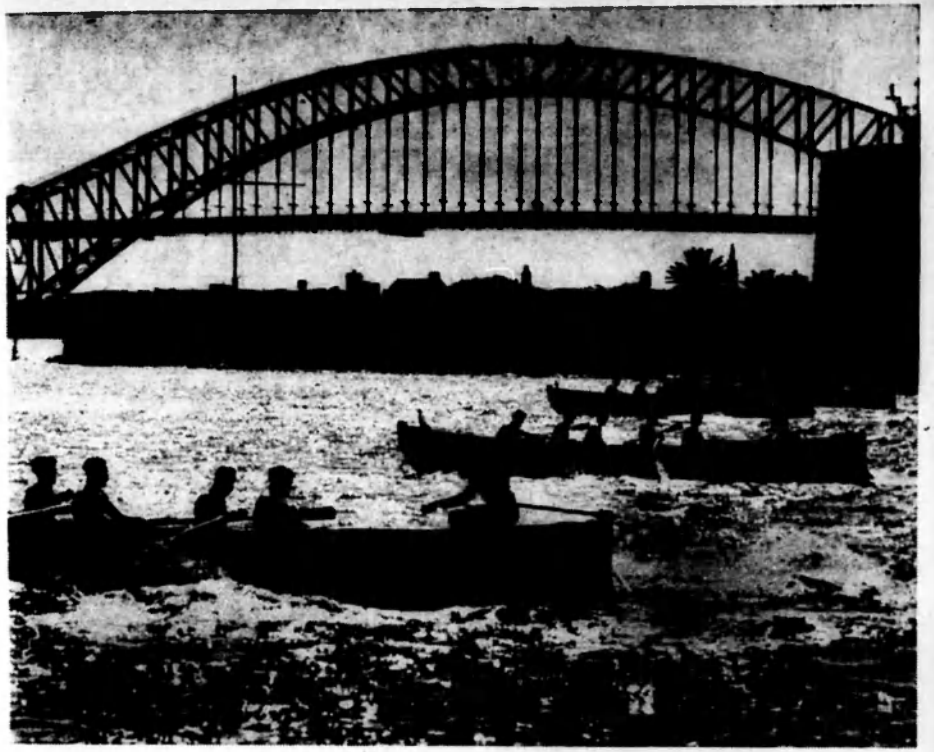
A day or two after war had been declared I was having lunch in the wardroom, when a messenger came and told me that the Captain wanted me immediately. I ran forward, and on reaching the bridge was surprised to see the "owner" leaning over the starboard end, shouting and gesticulating. Before reporting myself, I had a look over the side, and saw a large fishing boat under full sail, flying the German flag. The Germans were waving amicably back at the Captain, quite unable to understand what he was shouting at them, and blissfully ignorant of a state of war.

The Captain told me to "tell them to stop," so I shouted a few remarks in German. The effect was immediate. The German skipper's jaw fell; he put the helm over to port, and brought his boat up into the wind. I thereupon received instructions to go on board, bring off the crew, and sink the German vessel.

Clambering on board from the cutter, I was greeted with mild curiosity by the crew and with some nervousness by the skipper, who informed me they were six days out from Iceland with a cargo of herrings, and were bound for Leith to sell their catch. I explained the situation briefly and said the crew might have ten minutes to collect their gear. Meanwhile, I told our boat's crew to get up from the hold as many casks of herrings as they could and transfer them to the cutter, while I went below with the skipper to examine the ship's papers, and incidentally see how I could perform the sinking operation.

I could hardly ask the German skipper to help me in this nefarious deed; and I soon found that my familiarity with cocks and valves was not equal to flooding the ship, a solidly built steel or iron vessel of some 80 or 90 tons. I signalled to the ship for the carpenter, and when he arrived, we rummaged about together, but without result.

Meanwhile, going forward to see how the crew were getting on, I found they had all shifted into their Sunday clothes and were passing round a bottle of schnapps as fast as they could drink. I pointed my revolver down the fo'c'sle hatch, and told them to come on deck. They did so and I overheard mutterings of "Seeraüber." I resented being called a



The Royal Australian Navy had its annual flagship regatta on Sydney Harbour on November 17. This picture shows the start of the final of the whalers' race from Fort Denison to the flagship, H.M.A.S. Sydney.

* The 3rd Cruiser Squadron was known in the Grand Fleet as the "Sea-Cows"; the 3rd Battle Squadron (of "King Edward VIIs") as the "Wobbly Eight."

"pirate," and said so—adding that I would pay for the fish.

As our Captain was evidently getting impatient, and the carpenter no further on with the sinking business, I signalled back, suggesting gunfire—such a nice target to fire at was too good to be missed!

Having returned on board with our prisoners and fish, the ship steamed a short distance off. Fire was ordered to be opened by a battery of our three-pounder Vickers semi-automatics, the noisiest, and probably most ineffective guns I have ever had the misfortune to be shipmates with. The effect of a number of hits from their tiny lyddite shells was apparently nil; and the Captain ordered fire from one of the six-inch. Probably owing to careless sight-setting at such short range, the first two rounds missed over, and the Captain, in justifiable wrath, send the gunnery officer down to see to the matter himself. Three hits in quick succession with lyddite showed immediate effect, and the small vessel rolled slowly over and sank.

During this somewhat undignified proceeding, the German crew were lined up on the quarter-deck, under two marines, waiting instructions: and I was with the German skipper on the bridge, where I had conducted him to speak to the Captain. I must say I felt very sorry for him, as tears slowly trickled down his cheeks. The whole thing must have been a bit sudden. The skipper and crew, with others, were later, in accordance with the extraordinary Convention to which I have already referred, duly returned to Germany as valuable naval reservists! I sent for the skipper before he left the ship and gave him three sovereigns for the fish. He seemed very surprised, and thanked me warmly.

The delay caused by this incident must have thrown us out of our proper sphere of patrol, for soon afterwards we found ourselves amongst the battleships of the 2nd Battle Squadron, and witnessed one of the neatest shoots I have ever seen. The *Orion*, approaching at great speed, opened fire at another of these German fishing boats at about 15,000 yards, and found the target with a second salvo of 13.5-inch. When the great splash cleared, not a vestige of the German boat could be seen.

At this stage of the war we had heard nothing of German atrocities in Belgium, and, of course, the submarine campaign had not started, so there was no real feeling of animosity against our new enemy. We wondered which of the German ships we were likely to encounter, and the study of *Jane's Fighting Ships* was not encouraging, as we could find nothing approaching our size which could not apparently sink us in a few salvoes, with their greatly superior armament. But the whole business was technical and professional; there was an absence of ill-feeling.

This slow patrolling of the central part of the North Sea continued for some time. Life on board was fairly monotonous, eight or nine days at sea, and then into some harbour to coal, and off again. The two-watch system was found to be too great a strain, and the three-watch was evolved. All the same, for many months, a Naval lieutenant and I used to relieve one another, with only one watch "kept" for us. We slept "Cox and Box" on a camp bed in an upper deck cabin.

Our principal occupation during this phase of slow patrolling was to keep the look-outs up to the mark. The seaman and marine are not generally imaginative fellows, and it was difficult to make them realise that enemy submarines were about and might attack at any moment. I used to examine the glasses of a look-out from time to time, and frequently found them so covered with spray or condensation that he could see nothing through them, although to all appearance a good look-out was being kept.

When the German battle cruisers made a dash to the Yorkshire coast, and bombarded Scarborough, we raced South from the Forth, joining up with our 2nd Battle Squadron, at this period the most homogeneous and powerful squadron of the Grand Fleet. Admiral Warrender ordered us to take station ahead as a screen to his ships. We tried to comply, but as the battleships were doing 21 knots, and we, with the best will, a fraction under that, the feat was impossible.

Much the same occurred on the day of the Dogger Bank action. we were well up to the battle cruisers at one time, and tried our best to get mixed up in the chase by cutting off corners. We gathered that the *Blucher* was unable to keep up with the other German ships, and our Admiral asked Admiral Beatty—who, of course, was in command of our battle cruisers—to leave her to us. Perhaps it was as well that she was sunk before we could come up, as our whole squadron would probably have been no match for the powerful German cruiser, injured as she was. It was all rather humiliating, and I must say we sometimes envied those fast, powerful battle cruisers of ours, that could be trusted to get there, and hit hard when they did.

It may be interesting to recall here that the *Blucher* was designed and built as a result of the theft of faked British plans. The Germans, it is said, were trying hard to eliminate their naval inferiority. They knew we were planning two very powerful cruisers of entirely new design—*Indomitable* and *Inflexible*, the first of our battle cruisers — and they were most anxious to secure a copy of the plans. Our authorities were well aware of this, and also that no scruples need be expected on the part of the Germans.

Another set of plans was prepared of a ship very much less powerful, but sufficiently novel to take in the Germans.

The trap was set. The plans were most unfortunately left where they could be stolen: and the result was the *Blucher*, a fine cruiser, but not to be compared with the *Indomitable* and *Inflexible*, which she was built to outdo.

Summer was over now, and with the autumn, our patrolling became more distant. Muckle Flugga—the Northernmost point of the Shetlands—was a household word, and we used to coal at a place called Busta Voe. Later on this harbour became known as "Swardback Minns"! It was names like these that brought the war home to us!

Little worth recording seemed to happen during the winter, but our base was transferred to the Forth and we had some opportunity for a run ashore. Early in 1915 we went to Jarrow for a refit—not a place one would choose for a holiday—and everyone went down with colds and flu, whereas there had been practically no sickness in the ship.

Later, we were ordered to Devonport, very hush hush. We lay alongside the dockyard, and one day a train arrived, with a guard of Marines. A number of sealed trucks brought boxes from the Bank of England containing 5,000,000 minted "jimmies" and £10,000,000 in bar gold. All were transferred to the ship and stowed in shell rooms which had been cleared for the purpose. In addition, there were securities valued at £15,000,000. After sailing we learnt that our cargo was in payment for supplies received from America, and we were bound for Halifax. The voyage was uneventful and some days out we reverted to peace routine, which was a pleasant change.

On arrival off Halifax we heard a report that a German submarine had been sighted. Whether true or not we were naturally anxious to get in with our valuable cargo, but before doing so it was necessary to carry out the procedure for entering a defended port. This consisted of making a "Challenge and Reply," that is signals of a secret nature which were altered twice every 24 hours. We made our signal, which I was responsible for supplying to the bridge. We received no reply. We repeated the signal and continued to do so without any result. The Captain sent for me and asked if I was sure our "challenge" was correct. I was sure it was, and said so, but added that he might like another officer to check it with me. (It was rather a complicated affair to make out, involving manipulation of a highly secret disc, and reference to two different books.) We were able to confirm the accuracy of the signal, and meanwhile we steamed up and down outside at high speed. At last, after about an hour, the necessary reply was received, and we steamed into harbour. I believe the Captain had some pretty heated remarks to make to the Admiral's staff when he went ashore to report.

On return to England we went to Devonport, and eventually set out, North about, to rejoin our squadron in the Forth. We never got there.

The end of our "Sea-Cow" was an unhappy one. We emulated Sir Ralph The Rover, and piled up on the "Inchcape," otherwise known as the "Bell" Rock, and thereby hangs another tale. As far as I know the poor old Argyll is still there, with the lovely County plate, which some enterprising diver may one day recover. Fortunately, none of us heard the "gurgling sound," as no lives were lost.

—*From the London "Navy."*

R.A.N. SHIP WINS RUGBY FINAL

An all-Australian Rugby final was played when two teams from one Royal Australian Navy ship played off in the Far East Fleet Seven-a-Side Rugby competition last month.

Both teams came from H.M.A.S. *Warramunga*, which is serving in Far East waters with H.M.A.S. *Arunta*. *Arunta* also had a team in the semi-final.

The game was played at the Hong Kong Football Stadium.

The shield and trophies were presented by Lady Scott-Moncrieff, wife of Vice-Admiral Sir Alan Scott-Moncrieff, the Commander-in-Chief, Far East Station.

MARITIME NEWS OF THE WORLD

From our Correspondents in
LONDON and NEW YORK
By
AIR MAIL

Italian shipbuilding hopes revived

Italy is now feeling confident about the future of her shipbuilding industry.

An official Italian statement, referring to the "Tambroni Law," passed last year to assist the Italian shipbuilding and armament industries, says that Italian shipyards are once again in a position to compete on the world market.

The statement adds:

"It is a known fact that as a result of the boom in freights since the war in Korea, shipyards in every country have enjoyed an exceptional amount of orders, which will keep them busy for some years to come. The shipyards of Italy, however, represent an exception to all these activities. While in 1952 and 1953, thanks to the legislation enacted by the Italian Government, they succeeded in receiving orders from within Italy, foreign orders dropped to practically nil. During those years countries such as Argentina, Holland, Sweden, Norway, Denmark and Portugal deserted our industry. Only Russia, Switzerland, Turkey, Egypt, Indonesia, and Greece have placed limited orders in Italy.

"In the period 1948-1951 Italy built sixty-one ships for foreign countries, for a total of 226,847 tons. In 1952-1953 only twenty ships were built, for a total of 40,748 tons gross, namely: four tugs for Russia (348 tons); one motor vessel for Greece (5,000 tons); one motor vessel (7,500 tons) and one tanker (18,800 tons) for Switzerland; one ferry-boat (150 tons) for Turkey, and ten motor vessels (for a total of 5,600 tons) for Indonesia.

"The reasons for such a limited production do not rest in a deficiency of potential, but in high production costs, which placed our shipyards in a condition of inferiority in respect of foreign shipyards.

"The provisions of the 'Tambroni Law', of July 17, 1954, have brought much assistance to the Italian shipbuilding industry by helping to eliminate the high-cost factors.

"In particular, this law contemplates a reduction in taxation (exemption from Customs duty, from sales tax, and other export duties), thus establishing for the Italian shipyards a situation of extra-territoriality.

"The results have not been long: since the law has become effective, our shipyards have secured orders from abroad for six ships (totalling 65,210 tons), beside an order for a tug of 2,400 h.p. for Argentina, and some auxiliary units.

"The Ansaldo Shipyard at Genoa-Sestri has received an order for a liner of 24,000 tons from the Svenska-American Linien (Sweden) and for a tanker of 20,000 tons gross for the Miraflores-Panama Co. The Aldo Montosi Shipyards at Spezia have received an order from Turkey for three units, totalling 210 tons, while the Adriatic Shipyards at Monfalcone will build a tanker of 21,000 tons for the Transport Company of New York. Further, the Ansaldo Shipyards at Leghorn are building six destroyers of 6,000 tons each for Venezuela and two corvettes for Indonesia. Finally, the INMA Shipyards at Spezia have been ordered nine auxiliary units of 90 tons each by the Iranian Government.

"This beginning is very promising."

Japanese launch big tanker

Reset ship names in italics—catch

The 32,000-ton tanker **Opportunity**, built for the Panamanian Empress Line, was launched at the Harima shipyards, near Kobe, Japan, last month.

The tanker cost £A.1,650,000. The Empress Line take it over next March.

The "Mayflower" will sail once more

Captain Harry Grattidge, who captained two of the world's largest ships, the **Queen Elizabeth** and the **Queen Mary**, is now advising on the rebuilding of one of the world's smallest, the 183-ton **Mayflower**.

A twentieth century replica of the vessel which carried the Pilgrim Fathers to America in 1620 is being built at Brixham, Devon.

It will make a commemorative voyage over the same famous route next year.

The ship will be presented to America as a goodwill gift from Britain.

Captain Grattidge first went to sea half a century ago, when he was apprenticed to sailing ships. He retired two years ago.

The **Mayflower** will carry a crew of 21, as her predecessor did, and 30 passengers.

Preference will be given to descendants of the original Pilgrim Fathers.

They will wear period dress. Twenty specially manufactured oak chests will be carried to represent twentieth century trading links between England and America.

Building began on Independence Day, July 4, this year. The ship will sail on the same day for New Plymouth, Massachusetts, next year.

Aboriginal boy's plucky feat

An aboriginal boy recently swam and waded 40 miles through shark-infested sea in the Gulf of Carpentaria to help a grounded pearling lugger.

The lugger, the **Sedenham**, with a crew of eight Torres Strait Islanders, ran on a reef near Sydney Island on November 17 on its way from Mornington Island to Thursday Island.

The aboriginal boy, whose name is not known, sighted the lugger from Sydney Island.

He waited for low tide when the 20 miles of sea between Sydney and Mornington islands is only a few feet deep, and then swam and waded to Mornington Island Presbyterian Mission.

He reported the lugger's fate, and told the mission overseer that he would return to Sydney Island and send smoke signals.

This he did, but tricky winds and haze made his message unreadable.

The mission sent out a rescue party in a truck carrying a launch.

Patent granted for a "flying-submarine"

A leading U.S. inventor last month obtained a patent for the development of a "flying submarine."

He is Mr. Donald B. Doolittle, vice-president of the All American Engineering Co.

He is already engaged in experimental work for the armed forces.

Mr. Doolittle emphasised today that his air-and-undersea craft was still "in the formative stage."

Because of the "density" of aircraft, it seemed feasible that an aircraft could travel under water, he said.

The craft would use jet power for flying and be equipped with water skis for landing.

Once on water, the craft's portholes would close and it would ship water ballast.

The craft would use propellers underwated and be guided by the same equipment used in flight.

British sledge party's Antarctic survey

A four-man sledge party of the Falkland Islands Dependencies Survey has just completed a successful survey of uncharted parts of Grahamland, in Antarctica, the Colonial Office has announced.

The team, based at Hope Bay, travelled 900 miles across territory where temperatures of minus 50 degrees Fahrenheit are recorded.

They discovered an easy route to the roof of the 8,000-ft. Grahamland Plateau. The new route will help future survey parties to explore the central part of the hinterland.

On the east coast of Grahamland, the team reported seeing between 4000 and 6000 seals.

They also discovered that a group of islands, the Jasons, were not islands at all, but had a land connection with the mainland.

On their return the explorers were stopped by open water barring their approach to a substation of their base.

Here they found a stranded Argentine group, who had given up hope of moving on and were on the point of sending for a helicopter.

The British party found a way through and assisted the Argentines back to base.

Owners give colour to Sea Cadets

The Australian Steamship Owners' Federation gave the Sea Cadet Colour which the Governor of Victoria, Sir Dallas Brooks, presented to the Victorian Division at Government House recently.

A party of four cadets from Geelong Grammar School received the colour from the Governor. The Mildura unit of the Sea Cadets provided a guard and cadets from Melbourne, Bendigo, Geelong, and Portland were present.

The Mildura unit will keep the colour for the time being.

U.K. CARRIERS FOR FAR EAST EXERCISES

The light fleet carriers *Albion* and *Centaur* will go to the Far East Station in 1956 to carry out tactical exercises with the Far East Fleet and with Australian and New Zealand naval forces.

The two carriers will leave the United Kingdom early in the New Year and will be back in the United Kingdom by early May.

The White Ensign has been the Navy's Colour only 91 years

By Commander Hilary P. Mead, R.N.

THE ASSOCIATION of the White Ensign with the Royal Navy is nowadays so very close that the average man could probably not visualise any other arrangement. Nevertheless it was only in 1864 that out of the three ensigns of Her Majesty's Fleet the White was chosen solely to represent Her Majesty's ships. The particular association therefore is only 91 years old, and against that fact it may be said that the Red Ensign, previous to 1864, had been the Navy's principal colours for upwards of 200 years. These points should be borne well in mind when referring to naval matters prior to 1864.

For instance, in the well-known Hornblower books no English naval ensign is ever alluded to except the White, and when a detached ship-of-the-line captures a Spanish fort it is the White Ensign that is hoisted above the Spanish colours to proclaim the result, whereas in actual practice either the Union Flag or the Red Ensign would have been used. Similarly, a boat belonging to a British man-of-war never comes alongside a Hornblower ship unless she is flying the White Ensign, though in real life the boat might quite as likely have been flying the Blue and much more probably the Red Ensign.

It is remarkable that this historical truth should be so hard to digest,and that authors are so often met with who are quite unable to understand why British men-of-war are frequently depicted in action under the Red Ensign, so much so that these persons are heard to remark "What are those merchant ships doing fighting a battle?"

A walk round the National Maritime Museum will disclose that of all the numerous men-of-war represented down the centuries, either in battle or in peace, by far the greater number are flying the Red Ensign.

The English naval ensigns of the three different colours originated in 1625 when for tactical reasons it was considered necessary to distinguish the centre, van and rear squadrons. To begin with, the sequence had been red, blue and white, but in 1653 the order was altered to red, white, blue; the red, as belonging to the centre or commander-in-chief's squadron was always the senior colour, with the white for van, and blue for rear subsequently coming in that order of precedence.

The fields of the ensigns were of the basic colour with a small red cross in the top corner; in 1702 it was found that the white ensign of the three was apt to be confused with the French national colours whose field also was white, and with the flag of Dunkirk which was identical, namely, white with a red cross in the upper inner canton. Different designs were experimented with, and the final result was the inclusion of a large red cross of St. George in the field of the White Ensign. The dimensions of this very broad cross were eventually reduced and its width is nowadays two-fifteenths the depth of the ensign.

Whenever a flag officer of the Red or of the White or of the Blue commanded a squadron or a division the individual ships of that squadron or division wore a coloured ensign of the same colour as the admiral. Hence in October 1805, when Collingwood was a vice-admiral of the Blue, his division would *normally* be wearing Blue Ensigns. At the Battle of Havana on October 1, 1748, the English commander was Sir Charles Knowles, a rear-admiral of the Red; a fine painting of this action in the National Maritime Museum therefore shows the ships of his fleet all flying Red Ensigns.

When a ship was detached and not acting under the orders of an admiral of any of the colours, then, automatically, she would wear the principal, Red, Ensign.

In the course of time the need to distinguish different squadrons for tactical reasons disappeared, and the complication of the various units of a fleet in battle wearing a multiplicity of ensigns became a hindrance. In action, too, the colours of the opponents sometimes resembled one another and orders had to be given for all British ships to wear ensigns of one colour although that colour might not be appropriate for the squadron or fleet of a particular admiral.

Prior to 1789 the French ensign was a plain white flag and as the British White Ensign was liable to be confused with it in the smoke of battle, it was laid down in the Fighting Instructions that "In action all ships are to wear Red Ensigns." This order had been abolished before 1794, the year of the Glorious First of June, and in that battle there were divisions of the British fleet wearing ensigns of all three colours. Although the French had changed their colours to the tricolour by that date the alteration had not come into full effect, and some of the British ships began to open fire on H.M.S. *Marlborough* whose White Ensign looked like the French flag in the smoke of battle.

At the victory of the Nile on August 1, 1798, the English fleet was commanded by Sir Horatio Nelson, a rear-admiral of the Blue, but instead of wearing Blue Ensigns the ships fought under the White. This was in pursuance of an order by the Commander-in-Chief, Lord St. Vincent, because the White was more distinct from the blue-white-red of the French colours than either the Blue or Red Ensign. The Battle of Trafalgar was waged under the White Ensign because Lord Nelson was a vice-admiral of the White, and the division under Lord Collingwood who was a vice-admiral of the Blue, had to conform so as to avoid confusion during the engagement.

During the war of 1914-18 the British and German naval ensigns were dangerously similar which is not to be wondered at since Kaiser Wilhelm II had modelled many things in the Imperial Navy on the plan of the Royal Navy. To counteract this danger different remedies were used from time to time; the White Ensign was not changed but in action an extra flag was to be flown in a conspicuous position; the Blue Ensign for a period of only a few days; then the Union Flag; followed by the Red Ensign for about 14 months, and then finally back to the Union Flag.

The Battle of the Dogger Bank

Continued on page 29

Winner of the New South Wales 12-foot Championship, Ajax, of Groonwich, is shown under full spinnaker on the Shark Island run in the title race on Sydney Harbour on November 13.

THE HISTORY OF THE D.S.O.

By "Taffrail"

WHEN the Distinguished Service Order was instituted by a Royal Warrant of September 6, 1886, it was intended as an award for commissioned officers of the Armed Forces of the Crown "for meritorious or distinguished service in the field, or before the enemy." It was a *sine qua non* that they must have been mentioned in despatches, though it by no means followed that the award was made for gallantry in action. There were many cases of campaigns, including the Boer War of 1899-1902, and the earlier part of the First World War, where the D.S.O. was conferred for meritorious service in the field but not in battle. The rules of award were tightened up, and greatly for the better, by a Royal Warrant of February 5, 1931, which laid down that no officer should be eligible whose services had not been marked by the especial mention of his name in despatches for "distinguished services under fire, or under conditions equivalent to service in actual contact with the enemy."

The establishment of the D.S.O. was not brought about without a great deal of correspondence and discussion in which Queen Victoria herself, who had very decided opinions on such matters, played a leading part. The facts are not generally known.

On April 5, 1886, Mr. Campbell-Bannerman, the Secretary of State for War, wrote to Sir Henry Ponsonby, the Queen's Private Secretary, asking how Her Majesty would regard the creation of an "Order of Merit" for award to officers of all ranks, senior and junior, for good service in the field, particularly in the smaller expeditions which had recently been so numerous. At that time the only awards available were the C.B., which could not be given to anyone below the rank of major, and brevet promotion, which was inconvenient, confusing, and sometimes unfair.

The Queen concurred with the suggestion in principle; but wished there should be a Civil branch of the Order for bestowal for great literary and artistic merit, or for devoted services to the Sovereign. (In this last object, perhaps, lay the germ of the Royal Victorian Order, founded in 1896.)

Mr. Campbell-Bannerman thereupon submitted that the Order of the Bath was already open to all ranks of the Civil Service, and that the new Order he proposed should be confined to service in the field. The Commander-in-Chief, H.R.H. the Duke of Cambridge, the Admiralty, and the Secretary of State for India all agreed.

Her Majesty was quick to answer, minuting the paper in her own handwriting—"The Queen cannot say she much likes the proposal," and added that the new decoration should be an Order, not a sort of secondary V.C.; that it should not be worn as a Cross, or called one; that it should be worn round the neck, without a star; that the ribbon should be the same for both Services, red edged with blue, or red; that it should be quite unlike the V.C., as it was not intended to supplement that, but rather the Order of the Bath—"The Queen *is quite decided on these points*," she wrote, "and feels sure that the Duke of Connaught would agree."

Sir Henry Ponsonby thereupon suggested that the new decoration should take the form of a lower grade of the Bath. The Duke of Connaught concurred, writing—"It almost appears to me to be better to add a fourth class to the Bath, to be designated the "Assistant" or "Lieutenant" of the Bath (I can't think of any other designation). .The star might be of silver instead of gold . . ."

The Queen agreed, and again pointed out that Mr. Campbell-Bannerman's proposal would interfere with the V.C. and would be regarded as a superior grade of the Distinguished Conduct Medal, already available to N.C.O.s and men for gallantry in action. She preferred a fourth class of the Order of the Bath, Military division only.

There was considerable further correspondence. The idea of a lower grade of the Order of the Bath was dropped, and in choosing a name for the new Order Mr. Campbell-Bannerman suggested that the word "Service" would be greatly preferable to "Conduct" in the title, to avoid confusion with what was ordinarily known as "Good Conduct." Meanwhile 10 or more drawings of the new decoration had been submitted for consideration and sent to the Prince of Wales by Colonel Arthur Ellis. Writing to Sir Henry Ponsonby from the Royal Yacht *Osborne* at Cowes on August 8, 1886, the Prince forwarded the designs after choosing one of them; but was strongly of opinion that the new Order should be called "For Merit" instead of "For Distinguished Service." He suggested the ribbon to be the Waterloo one—red with blue edges—as plain red would look like the Bath.

The pattern finally chosen was designed by Colonel Ellis. He said it was not unlike the crosses of the Austrian Order of Maria Theresa and the Italian Order of the Crown, and had the merit of simplicity. There seems to have been some further correspondence as to whether the new decoration should be called a Cross or an Order, but in the end, in deference no doubt to Queen Victoria's expressed wish, it finally became the Distinguished Service Order.

Thus the D.S.O., which in official terms is a gold cross patée convexed, enamelled white, edged

CANADIANS' ARCTIC EXERCISE

DID YOU KNOW that moose lips are a gastronomic delicacy, that the inside bark of the poplar is edible from first sap until July, that a parachute makes an excellent shelter? These are some of the things that members of the ship's company of H.M.C.S. *Labrador* learned during the past winter while on course at the R.C.A.F. Survival Training School.

Survival training is usually confined to aircrew of the Air Force and a few Navy pilots, but due to the nature of the work in which the *Labrador* is engaged, non-flying personnel from that ship were selected for the course. When the opportunity was presented in January there were many volunteers who thought that the silent solitude of an igloo would be a good escape from the raucous cacophony of chipping hammers, air chisels, riveting guns and other normal irritants of a ship's refit.

The school is located at Station Edmonton and here the indoctrination lectures are given for the first four days. It was 37 below zero the morning that the 40 members of the course boarded the bus at Edmonton to travel 150 miles west to the bush camp at Hargwen, within sight of the Rockies. Here, camped on the bank of the McLeod River, the students lived for three days learning shelter construction, snare setting, snow-shoeing and other winter bush lore.

They also learned how to go hungry. Each man is issued a box of emergency rations for one day and told that it is all he will get for the next three days. He makes it last but he doesn't enjoy it. There is some satisfaction, though, in bathing, stripped to the waist, at a hole cut in the river ice with the temperature at 25 below — the view of the mountains is magnificent.

Separated into groups of five and accompanied by civilian guides, the students move out from this base camp through pathless bush and muskeg to set up camp in separate areas about seven miles distant. The 60-pound pack, deep snow, beaver dams, uneven ground and an empty stomach try a man's soul; also his back and legs. Then on arrival, with his last ounce of strength he must construct a shelter and bunk for the night and get supper. Fortunately for those who took the course in February, a Chinook made camping and playing trapper not at all unpleasant.

Bewhiskered and filthy dirty from 10 days in the bush, the course was taken back to Edmonton and flown north in a C119 to Cambridge Bay on Victoria Island. Six and a half hours by plane and six and a half miles on foot from the bay brought the party to their camp on a frozen inland lake. There the Eskimo guides had constructed several igloos and there were "home" for a week. The universal feeling of men getting into an untenanted igloo for the first time is that this is the coldest habitation in the world. Cheer up! It gets worse.

The next morning, equipped with snow knives and saws, the students were taught the mysteries of snow-block cutting, igloo building and that supreme test of human endurance, the "fighter trench." This last device is made by cutting a shallow trench about three feet wide in the snow, building up the sides with two rows of snow blocks and roofing it over with more blocks. Each man is required to spend a night and eat two meals in this shelter He has a small primus stove and two hours of fuel to cook with—small comfort indeed at 55 below.

But all is not lost. After a night in a fighter trench, the igloo seems like a cosy refuge for the next five days. Within that shelter you can eat your emergency rations out of unwashed dishes (no fuel to melt dishwater), complete with caribou hair from your mitts and bedding, and dream only of food and warmth. The great truth of this phase is, "You won't be comfortable in an igloo, but you will survive."

The members of *Labrador* returned to their ship confident that they could survive in the Arctic in winter and with a profound respect for the Eskimos who have lived there for so long.

(From "The Crows Nest," the Royal Canadian Navy's Journal.)

HISTORY OF THE D.S.O.—Continued

gold, having on the obverse, within a wreath of laurel enamelled green, the Crown in gold, upon a red enamelled ground; and on the reverse, within a similar wreath, and on a similar red ground, the Royal Cypher. Worn from a ribbon one inch wide of red with blue borders, it hangs from a gold bar ornamented with laurel, with a similar brooch bar above the ribbon.

The first awards of the D.S.O. were those conferred upon 26 officers of the Army on November 25, 1886, mostly for good service in the Soudan. The first naval awards, to Commanders John Durnford, Alfred Carpenter, Charles James Barlow, and Major and Hon. Lieutenant-Colonel Walter M. Lambert, Royal Marine Artillery, for the operations in Burma, were gazetted on January 13, 1887.

Since August 23, 1916, any recipient of the Order who subsequently performs an approved act which, if he had not received the Order, would entitle him to it, may be awarded a bar to be attached to the ribbon, and for every additional act a further bar. When the ribbon alone is worn in undress each bar is represented by a small silver rose. The greatest number of bars yet awarded to any single person has been three.

As in the case of the V.C., officers of the Merchant Navy serving under naval authority and subject to enemy action became eligible for the D.S.O. in September 1942. (They had already been awarded the purely naval Distinguished

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Veteran Engineer Officer Ends Colourful Career

WHEN Lieutenant - Commander (E) A. E. Edwards was transferred to the Retired List of Officers of the Royal Australian Navy on November 15, he was the oldest serving member of the Engineering Branch of the R.A.N., and had completed 41½ years' service in the Permanent Naval Forces of the Commonwealth.

Lieutenant-Commander Edwards joined the Royal Australian Navy from South Australia at the Williamstown Naval Depot on May 8, 1914, as a stoker second class. After a few weeks' preliminary training, he joined the battle cruiser *Australia*, Flagship of the Australian Fleet, where he remained until June, 1918. He took part in all operations resulting in the capture of German New Guinea, German Samoa, and other enemy possessions in the Pacific, and continued to serve in the ship when from January, 1915, she steamed thousands of miles in the North Sea as Flagship of the Second Battle Cruiser Squadron of the British Fleet.

Lieutenant-Commander Edwards attained the rating of Petty Officer in 1918, Chief Petty Officer (Mechanician) in 1919, and Chief Mechanician in 1925. Later that year he was promoted to Commissioned Mechanician (then designated Warrant Mechanician).

He was on exchange duty in H.M.A.S. *Australia* from 1934 to 1936, during which time she conveyed H.R.H. the Duke of Gloucester back from Australia to England, took part in the King George V Jubilee Review, and afterwards formed part of the British Fleet at Alexandria, Egypt, during the Abyssinian crisis. He transferred to H.M.A.S. *Sydney* in 1936, visited the Anzac battlefields and Cyprus, and returned to Australia in that ship in 1937.

He joined H.M.A.S. *Canberra* in April, 1938, and served as one of the Engineer Officers of that ship until December, 1939, when he was appointed to the staff of the Commodore Commanding the Australian Squadron as the Assistant to the Squadron Engineer Officer in H.M.A.S. *Perth*.

LIEUTENANT COMMANDER EDWARDS.

In December, 1939, he proceeded to the Mediterranean Station to take up an appointment as Senior Engineer Officer in H.M.A.S. *Stuart*, of the "Scrap-iron Flotilla." He served in that ship during the operations which resulted in the capture of Bardia, Tobruk, and Benghazi in 1940-41, took part in the Battle of Matapan and convoyed our troops from Egypt to Greece.

He was appointed as the Engineer Officer of H.M.A.S. *Voyager*, another ship of the 'Scrap-iron Flotilla' in April, 1941, and served as the Chief Engineer of that vessel throughout her interesting but hazardous pilgrimages on the "Tobruk Spud Run," the evacuation of our troops from Greece and Crete, and subsequently steamed the old ship back to Australia for refit towards the end of 1941.

In March, 1942, ill-health necessitated his transfer to less arduous duties, and he was appointed once more to the staff of the Rear-Admiral Commanding the Australian Squadron, as Assistant to the Fleet Engineer Officer.

He was awarded the M.B.E. for Meritorious Service in the New Year's Honours List in January, 1943.

Lieutenant-Commander Edwards was promoted to his present rank in April, 1950. His service has covered almost the whole of the period since the inception of the Royal Australian Navy as a coherent and substantial fighting force.

* * *

Captain Rhoades

Captain Rodney Rhoades, D.S.C., A.D.C., R.A.N., Captain (D), 10th Destroyer Squadron, left Sydney in H.M.A.S. *Tobruk*, with H.M.A.S. *Anzac* in company, for Malaya on November 16 to relieve the other two ships of his squadron, H.M.A. destroyers *Arunta* and *Warramunga*.

Captain Rhoades is the son of a sailor — the late Mr. W. J. Rhoades, who served in Devitt and Morrish training ships before transferring to the P. & O. Company—and as a schoolboy spent a great deal of his time sailing in dinghies on Sydney Harbour. He entered the Royal Australian Naval College in 1923, and with a sailor-father found no great difficulty in settling down to Navy life.

In January, 1927, he went to the United Kingdom with the other members of his group and was appointed Midshipman in H.M.S. *Royal Sovereign* on the Mediterranean Station, where his first Captain was "Bubbles" James (of Pear's Soap fame), now Admiral Sir W. M. James (Retired).

He served all his Midshipman's time on that station in H.M. Battleships *Royal Sovereign*, *Barham*, *Resolution*, and the Destroyer *Vanessa*."

After Sub-Lieutenant's courses in England, he returned to Australia in 1921 and was appointed Sub - Lieutenant to H.M.A.S. *Australia*, where he served until November, 1933, as Sub-Lieutenant and Lieutenant.

The outbreak of World War II found him as First Lieutenant of the Destroyer *Vampire* on his way to the Mediterranean, and in February of 1940 he assumed command as a Lieutenant of H.M.A.S. *Vendetta*. In this ship he saw considerable action in and about Tobruk, Greece, and Crete, taking part in the early stages of the Battle of Matapan. For service in the Mediterranean he was awarded the Distinguished Service Cross and was mentioned in despatches.

After a brief spell in Australia in 1941 he returned to England and stood by building and completed the destroyer *Quickmatch* in which he served in command from September, 1942, to May, 1944, seeing service in the North and South Atlantic, at the North African landings, and in the Eastern Fleet.

In 1944 he was promoted to Commander and returned to Australia to serve as Training Commander at Flinders Naval Depot. In 1946 he was appointed in command of the Frigate *Shoalhaven*, where he served as Senior Officer of the 1st Frigate Flotilla.

In 1948 after a short period as Naval Officer-in-Charge, Brisbane, he was appointed as the Executive Officer of the new R.A.N. Air Station at Nowra, N.S.W., where he spent over two years fitting out that establishment.

In 1950 he went on exchange to England and was appointed in command of the destroyer *Opportune*, where he served as Commander (D) of the Nore Destroyer Flotilla until after he was promoted to Captain in June, 1951.

During his time in *Opportune* he had the privilege of escorting their Majesties the King and Queen of Denmark in and out of English waters when they visited the United Kingdom for the Festival of Britain. For this service he was awarded the Danish Royal Order of Danneborg.

R.N. Appointments, Etc.

The Admiralty has announced the following appointments and promotions:

Rear-Admiral W. J. W. Woods, D.S.O. and Bar, to be Flag Officer (Submarines) in succession to Rear-Admiral G. B. H. Fawkes, C.B., C.V.O., C.B.E. (December).

Rear-Admiral J. D. N. Ham, C.B., to be Rear-Admiral Reserve Aircraft vice Rear-Admiral L. E. Rebbeck, C.B. (October).

Rear-Admiral N. E. Dalton, O.B.E., for duty with Engineer-in-Chief, Admiralty, Bath, and as a Deputy Engineer-in-Chief, vice Rear-Admiral I. G. Maclean, C.B., O.B.E. (October).

Captain G. O. Naish, M.I. Mech.E., R.N., to be Rear-Admiral (August) and appointed for engineering duties on the staff of C. in C. Portsmouth vice Rear Admiral N. E. Dalton, O.B.E. (September).

Captain J. P. W. Furse, O.B.E., R.N., to be Rear-Admiral (September) and to be Director of Aircraft Maintenance and Repair, vice Rear-Admiral J. D. N. Ham, C.B.

Captain G. A. Thring, D.S.O. and Bar, R.N., for duty with the Ministry of Defence in connection with the United Nations Disarmament Sub Committee and to serve in the acting rank of Rear-Admiral.

Captain H. C. Coleridge, D.S.O., D.S.C., to H.M.S. *Pembroke*, in command and as Commodore R.N. Barracks, Chatham and granted the rank of Commodore (2nd Class) while holding these appointments.

Navy-Air exercises in Japanese area

The U.S. Far East Air Force, working with the Navy and marines, early last month began its biggest post-war exercises over Japan, Korea and Okinawa.

Air Force headquarters said that targets in five air divisions, representing major military objectives, would be defended.

REVIEWS

"The Wind is Free," by Frank A. Wightman; published by Rupert Harte-Davis, London.

A man who writes "food is a bore" is not to the reviewer's mind a friendly soul, and in fact there is a lot in Frank Wightman's "The Wind is Free" that the average reader will not agree with. Nevertheless, this book is well worth reading and for the yachtsman it deserves a permanent place in his nautical library.

The author is in many respects a remarkable man. He lived in South Africa, working in an office, when he realised that the 8.30 train habit was civilised slavery. He gave it up and built a yacht unaided, though when he started he knew nothing whatsoever about boat building. In the course of time the vessel was completed and Wightman decided to sail her to America. This he did with a companion, Graham Young, who is much more human and will have the reader's sympathy.

The book chiefly concerns the voyage to Trinidad by way of St. Helena and Ascension. It makes most interesting reading, as the author has the happy knack of making the humdrum seem exciting, and the course taken is new in ocean yachting. Yachtsmen, however, will look for plans of the author's yacht in vain, and the statistics on "time and distance run" are lacking for those interested in navigation. Graham Young provides the photographs which are excellent. It is still a mystery to this reviewer how the voyage was accomplished without a single hot meal being consumed!

—D.G.F.R., in the London "Navy."

"Sea Peace," by Lord Stanley of Alderley; published by Peter Davies (London).

For those interested in yachting and cruising, a book setting out the trips of the author is always welcome. In such a work the cruising yachtsman looks for inside information as to the advantages or otherwise of the places visited by the author. In *Sea Peace* by Lord Stanley of Alderley he will not be disappointed.

All offshoremen know how poor the North Coast of Spain is in port facilities, but Lord Stanley has discovered Pasajes which he describes as "one of those harbours we dream of." He also provides a most useful little chart giving, as well as the navigational data, such information as from whom the visiting yachtsman can expect calls and the idiosyncrasies of the callers.

Many of Lord Stanley's cruises were in Scottish waters and it is a strange coincidence that the reviewer is writing these words in the dog-house of a vessel which has just emerged from the Kyles of Bute. Another coincidence arises from the first page of the book. Lord Stanley says that as he signed the cheque completing the purchase of his first yacht he felt he was signing a passport to the whole world and in his mind's eye he sees the silver wake threading its way down channel, across the Atlantic and over the Pacific. In fact, the author has never accomplished these feats, but at this very moment a yacht that was once his is being navigated single-handed by Lieutenant-Commander V. C. F. Clarke across the Pacific, having already sailed the Atlantic.

Sea Peace is written in an attractive style and is easy to read.

D.G.F.R.

"Sea Peace." By Lord Stanley of Alderley. (Peter Davies, 12/6).

"The Flight of the Firecrest," by Alain Gerbault; published by Rupert Harte-Davis, London.

Alain Gerbault was one of the first men to achieve the crossing of the Atlantic single-handed from east to west; his voyage inspired others to follow in his wake. The information to be found in his "The Flight of the Firecrest" was, and still is, indispensable reading for those who came after him. But his book makes a tremendous appeal also to those of us whose travels remain more conventional. The Firecrest was an English cutter 39 ft. overall, built in 1892. The author purchased her in 1921 and in April 1923, after a voyage of great endurance, lasting 101 days, he took her from Cannes to New York. He had unbounded faith in his gallant boat; he should have had less faith in the ship chandlers at Gibraltar, who provided him with salt beef that was good at the top of the barrel, but farther down was largely made up of bones and fat, also the water in two casks went bad, turned red and tasted too sour to use, so that all our friend's cooking had to be done in salt water, which, under a tropic sun, added to his thirst. "I have had many difficulties, but I have won and I am ready to sail again," he writes. He did sail again and his grave is in Bora-Bora, one of the Oceanic Leeward Isles group. This book perpetuates his renown as an ocean-going yachtsman. His defence of the native cause in the South Sea islands has ensured the permanence of his name in the annals of sociology.

—H.B., in the London "Navy."

"Flight from Dakar," by Eiliv Hauge and Vera Hartmann; published by Allen and Unwin (London).

Those of us who during the war had opportunities for meeting any Scandinavian seamen were not left in doubt concerning their retention of the spirit of their Viking ancestors. Here is a thrilling account of how, after the overcoming of apparently insuperable obstacles, a Norwegian merchant vessel succeeded in escaping from Dakar, where the Vichy-Frenchmen were in command. Despite a semi-circle of Scandinavian ships placed round the great battleship *Richelieu*, a British submarine dived under them and inflicted such damage on the *Richelieu* that she could only steam at nine knots. This had enabled a young Danish sailor, whom I met at Newcastle, to slip away with two or three companions in a small boat in which they pretended to be fishing, until the *Richelieu*, on a trial trip, was far enough away, whereupon they hoisted a sail and finally reached Bathurst. More difficult was the emerging from Dakar of the 9000 ton *Liduard*; and here we are given an admirable account of how it was brought about. The fantastic idea, which came to the chief engineer, was to make new pipes and exchange these real ones for the false ones that the French had taken ashore with them. It is delightful to learn that this engineer, Bjarne Smordal, and his captain, Lindtner, who had to make a most difficult decision, were not only honoured by their own King but were made K.B.E.s, while the captain received Lloyd's Silver Medal for Meritorious Service, an honour very rarely bestowed.

H.B.

"Flight from Dakar," by Eiliv Hauge and Vera Hartmann. (Allen and Unwin, 15/-).

U.S. Navy bombers visit Australia

Ten United States Navy bombers visited Australia on a goodwill mission last month.

The aircraft, Neptunes, carried a total crew of 34 officers and 86 men. They came from Japan after completing five months' Far East service on shipping surveillance and reconnaissance.

POLAND GIVES THANKS TO THE "VENGEANCE"

The aircraft-carrier *Vengeance*, which arrived in the United Kingdom from Australia recently, has been thanked by the Polish Ambassador in London for assistance she gave to the Polish merchantship *Braterstwo* as she was approaching the end of her voyage.

The thanks have been conveyed to the *Vengeance* through the British Foreign Office and the Admiralty.

As a result of an explosion in the *Braterstwo* a member of her crew was seriously injured. A signal from the *Braterstwo* was answered by the *Vengeance*, which altered course, and, after administering first-aid to the injured seaman, took him to Portsmouth, where he was admitted to hospital.

The *Vengeance* had been on loan to the Royal Australian Navy from the Royal Navy for two years pending completion of the new aircraft-carrier *Melbourne*.

THE WHITE ENSIGN
Continued from page 23

was fought during the period in which the Red Ensign was in force, and the Battle of Jutland while the Union Flag was the rule. This use of the Red and Blue Ensigns may be thought an infringement or an encroachment on the prerogatives of the Merchant Service and the Royal Naval Reserve, but when these ensigns were allotted by Queen Victoria in 1864 they were only, as it were, loaned for the purpose, and the Crown has never to this day said goodbye to, or given up, its ownership of the Red and the Blue which are still legitimately termed ensigns "of Her Majesty's Fleet."

Scottish extreme nationalists have been known to object to Her Majesty the Queen's cypher bearing the figure "II" on such things as pillar-boxes and so on. (Was there a similar agitation when King Edward VII came to the throne and Scotsmen considered that he should have been Edward I?). A complaint from the same sort of people is heard from time to time because the White Ensign and admirals' flags of the Royal Navy continue to bear the conspicuous cross of St. George, and because it is felt to be a slight or even an insult to Scotland to perpetuate this English bias.

The remedy would be somewhat difficult; to include a second St. Andrew's saltire in the White Ensign would be to make its design far too complicated and optically objectionable.

The Scottish complaint is reasonable enough in its aim for conformity but it is forgotten that the St. George's cross was inserted previous to the union of 1707 solely for the sake of distinctiveness, and with no idea of ignoring or insulting the Scottish nation. Actually, there is a matter which might be considered still more slighting, the fact that for about two centuries the White Ensign was known in the Navy, not in similar terms to the Red and Blue, but invariably as the "Saint George's Ensign."

—*From the* London "Navy."

REPORTS FROM DIVISIONS

NEW SOUTH WALES

By *D.J.M.*

ONCE again it was the privilege of the Sea Cadets to provide the guard of honour and colour party for the Trafalgar Day ceremony in Martin Place, Sydney. The guard was trained in H.M.A.S. *Rushcutter* by Lieutenant J. Lovell, R.N. Approximately 25 per cent. of the guard were cadets who were in the guard last year. This meant practically the training had to begin from the beginning as though all the cadets were new to the drill. Hard work and patience again produced a well-trained guard of honour, and the Minister for the Navy, Mr. J. Francis, commented on their smart appearance and drill.

The Fleet Band led the march of Sea Cadets, Sea Scouts, Sea Rangers and Junior Red Cross.

Training Activities: All units took part in training courses in H.M.A. Ships *Sydney* and *Cootamundra*. Three Officers, two Chief Petty Officer Instructors and eighty-two cadets were embarked in *Sydney* and ten cadets in *Cootamundra*. Sea Cadet Lieutenant K. M. Adams (T.S. *Australia*) was appointed as group officer, his duties being to supervise the entire training course in the two ships. This was necessary as all Sea Cadets were taking part in the Trafalgar Day march, programme selling and activities in connection with Trafalgar Day, and on all occasions of leaving the ships had to assemble as one group abreast of H.M.A.S. *Sydney*.

On Sunday, October 23, all units assembled on board the *Sydney* for Sunday divisions and Captain's inspection. The result of the inspection brought to light the fact that some cadets must take more care in their preparation for such inspections, particularly with regard to uniforms, haircuts and cleanliness. Cadets must realise that it only requires one cadet to be untidy to spoil the effect of any assembled body of cadets. Chief petty officer instructors, petty officer instructors, cadet petty officers and cadet leading seamen have a duty to perform in this respect and must keep an eye on the cadets under their charge.

* * * *

Resignations: Sub - Lieutenant Douglas Kiely (T.S. *Perth*), Mr. Barry Lewis (T.S. *Warrego*).

Advancements: Acting cadet leading seaman to cadet leading seaman, J. R. Whelan (T.S. *Shropshire*), W. Altmann (T.S. *Perth*), M. J. Kean (T.S. *Australia*); cadet able seaman to acting cadet leading seaman, S. Nash, T. Lloyd (T.S. *Sydney*), J. Weekes (T.S. *Warrego*), A. O'Mara (T.S. *Warrego*), E. F. Kidner, D. K. Lewis, K. Pascoe (T.S. *Shropshire*).

Entries: T.S. *Sydney*, 1422 W. C. Bissett; T.S. *Australia*, 1401 G. P. Scaife, 1406 C. F. Lincoln, 1407 D. L. Rothwell, 1408 A. J. Hancock, 1409 B. T. Jones, 1410 J. E. L. Davies, 1411 A. F. Jerrard, 1414 T. A. Holm; T.S. *Perth*, 1400 J. Long; T.S. *Sirius*, 1412 A. M. French, 1423 J. Gales; T.S. *Albatross*, 1424 A. Upton; T.S. *Tobruk*, 1402 B. Clark, 1403 G. R. Dobbie, 1404 A. Murley, 1405 R. Lawson, 1413 A. J. Andrews, 1421 C. V. Williams (re-entry); T.S. *Shropshire*, 1415 D. Webb, 1416 R. K. Robertson, 1417 H. Kramer, 1418 J. J. Atkinson, 1419 S. J. Bikneris.

* * * *

S.C. Commander Len Forsythe has resumed his position as Divisional Senior Officer as from the 1st November, 1955. He has brought back with him from his overseas trip a large collection of interesting photos and coloured pictures of all the places he visited and his travel talk is well worth listening to. S.C. Lieutenant-Commander Dave Mort, who was deputy during the Senior Officer's absence overseas, has resumed his position as Divisional Executive Officer.

* * * *

Cadets from T.S. *Sydney* again were privileged to carry the flags at the festival of remembrance in the Sydney Town Hall on November 11. This is an honour which has been theirs for many years.

T.S. *Sydney* holds the Aggregate Navy League Swimming Cup, which she will soon be called upon to defend.

* * * *

T.S. *Warrego* is really getting down to business. The new store room and heads are almost completed, and *Warrego* hopes to go ahead with another addition, which will become the messrooms for cadets. The numbers remain steady. *Warrego*, like her sister unit *Albatross*, must necessarily spent a lot of the training time on alterations and additions so that when completed she can really get down to the training syllabus. While on the subject of *Warrego* cadets, mention can be made of the Grimley boys.

Six members of the Grimley family have been attached to the unit. Four have passed through; one is a petty officer, and two have come up from the junior section, and now look like following in their brothers' footsteps and becoming efficeint members of the Corps.

T.S. *Albatross's* "Operation Weatherboard" is under way in Wollongong. At long last *Albatross* cadets look like completing their own home. Years of patience and devotion to duty will be rewarded by the new ship. No more scraping around for somewhere to parade. No more dependent on Army commitments for the use of the drill hall. On completion of the depot, recruiting in Wollongong should go ahead, and perhaps eligible boys who left Corps will rejoin to help the unit on its way.

* * * *

The year 1955 is drawing to a close and an overall look at the Corps' activities shows that there is an upward trend towards improvement in efficiency. A few lessons have been learnt through experience and inspections. Training in Naval ships and establishments has stimulated interest in the Corps. There is still, however, need for Sea Cadets to lift the efficiency, stability and general activities of the Corps another 25 per cent. so that we can be proud to say we are members of the Australian Sea Cadet Corps, and know that the public will look on it as an essential part in the training of boys, whether it be for the Navy, Merchant Navy, or citizenship.

TASMANIA

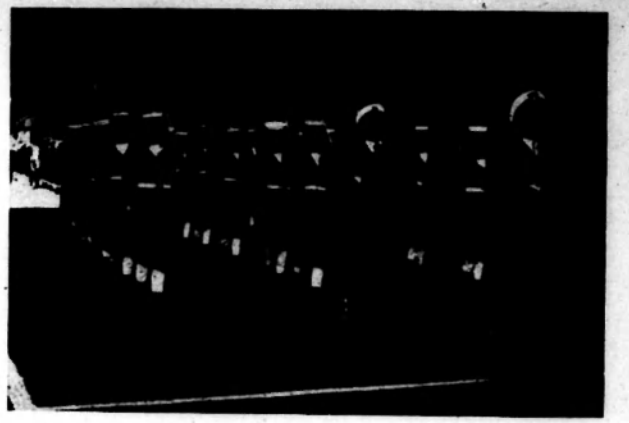
By *G.E.W.W.B.*

The Sea Cadets of T.S. *Derwent* marched through the streets of Hobart on Trafalgar Day. The column, which was under the command of S.C. Lieutenant J. Hamilton Smith, consisted of one armed platoon and a field gun's crew with gun and limber. The salute was taken by the Lord Mayor of Hobart, Alderman A. R. Park, C.M.G., from the Town Hall steps.

Saturday, October 22, was open day for parents and friends who visited H.M.A.S. *Huon* and saw the cadets at instruction.

On Sunday the cadets marched with seamen from H.M.A.S. *Gladstone* and ex-Naval Men to the War Memorial. Later, the cadets attended the Mariners' Service in St. George's Church, Battery Point.

At Launceston, the cadets from T.S. *Tamar* marched with the Ex-Naval Men's Association to the Cenotaph, where after a short service a wreath was laid and a feu de joie was fired. The unit then marched past the president of the Ex-Naval Men's Association who took the salute. The parade was under the command of S.C. Lieutenant G. Cutts.



Sea Cadets of T.S. Derwent marching through Hobart on Trafalgar Day.

Under the command of S.C. Lieutenant Hollingsworth, a party of Sea Cadets from T.S. *Emu* (Burnie) marched to the Cenotaph with the Ex-Naval Men's Association. The cadets mounted a guard at the Cenotaph while a short service was held.

* * * *

T.S. *Derwent* now has a canteen in H.M.A.S. *Huon*, in a space provided by The R.N.O. Hobart. This has been well patronised and is a great success.

Several cadets from the Hobart unit have joined the R.A.N.R. cadet force. They parade with the R.A.N.R. on Fridays and with the Sea Cadets on Saturdays.

Approval has been given to hold a training camp at Fort Direction in January, 1956, for 100 cadets from all the units in Tasmania. The opportunity will be taken to get in as much sea and boat work as possible.

W.A. DIVISION

From the Albany (W.A.) branch of the Navy League:—

In the last three weeks in October we were heavily occupied getting the Sea Cadets mustered and arrangements made for Trafalgar Day.

H.M.A.S. *Fremantle* arrived here two days earlier than be expected and caught us by surprise. We paid an official visit to the Captain and arranged plans for a busy weeks of which the highlight, for us, was the trip to sea arranged for the Sea Cadets on the Thursday morning. Conditions were choppy with squally winds, but the Captain carried out a series of exercises which the Cadets found most impressive.

On the Friday night we ran a Navy Carnival Dance with the ship's company as guests of honour. The local populace, specially the fairer sex here, rated the dance the best of the year. The Captain and officers of *Fremantle* selected "Miss Navy League."

On the Saturday there was a civic reception for officers of the ship. That evening the Police Boys' Boxing Carnival, of which part of the takings went to the Sea Cadets, was held and was a

For Sea Cadets

THE THEATRE IN AUSTRALIA

By Harald A. Bowden, M.B.E.

Honorary adviser on drama to the Sydney branch of the Royal Society of St. George

IN THE early days of this country, Australians had to rely on Hobart Town sending us their players; but it was not long before artists from England and America heard of the profitable theatrical field in Australia and wended their way to the land of golden opportunity.

It was a fairly long step to any real organised theatre in Australia, but in 1833 Barnet Levy built the first Theatre Royal in Sydney—on the site where Dymock's book-shop now stands—opening it with a performance of "The Miller and His Men." Other theatres were built from then on and by 1855 the Victoria Theatre and the Prince of Wales (built on the site of the present Theatre Royal) were all having their successes—or their failures—as will ever be in things theatrical.

The years 1886 and 1887 were wonderful years for theatre building—the Criterion in Sydney, the Princess in Melbourne, and Her Majesty's in Sydney opening in a blaze of glory, the last named with a magnificent production of "Henry V" with one of our late Prime Ministers, Mr. W. M. Hughes, acting as one of the supers and instigating a strike for a rise in super fees of 100 per cent., that is for 1/- a performance instead of sixpence!

In 1891 Sarah Bernhardt came to Australia and conquered the hearts of theatre-goers. At Sarah Bernhardt's farewell performance at the Royal, every stage artist in Sydney paid tribute to her genius by presenting her, individually, with sheafs of the choicest flowers.

Grand opera came in 1911—and what a company! Melba, then the greatest prima donna in the world, associated with John McCormack, Madame Cisneros, Madame Wayda, Scandiari and Edmund Burke.

Then came grand ballet in 1913, with Genee, Alexander Volinin, and others, this being the first opportunity offered to the Australian public to see real ballet.

And so I could go on, telling you of the really wonderful history of the theatre in this country, but I shall retain further references on this score to later articles.

What of the theatre to-day?

Australia is certainly having a feast of good things. The Old Vic Company, headed by our own Robert Helpmann and an American star, Katherine Hepburn; grand opera in Italian, giving many talented Australians further opportunities of gaining valuable experience; the opening of the Elizabethan Theatre, marking the return to Australia of Sir Lewis Casson and Dame Sybil Thorndike with Sir Ralph and Lady Richardson giving superlative performances; grand ballet, gaining international standard, with choreographers of world reputation, and the return to Australia of our own John McCallum, who has introduced to Australia his wife, Googie Withers—one of England's most beautiful and talented actresses.

So, in all sincerity, I can say that the future of the theatre in Australia will indeed be a bright one.

The living theatre (the fabulous "invalid") is making a rapid recovery. It is my earnest hope that it will continue to thrive and grow in proportion to the ever-increasing population of Australia.

SEA CADETS—W.A. DIVISION
Continued from page 31

great success. Subsequently, Inspector Larson, of the Albany Police Department, expressed himself very grateful for the support of the Navy League and promised to help us in the formation of our Sea Cadet Unit.

Sunday was to have been a complete tour of Albany, winding up with a barbecue in the evening, but the weather was bad and the plans had to be abandoned.

Now we have welcome news of a "P" hut from the Forts being made available to us and news from Albany Harbour Board that they approve of our request for a piece of land.

THE HISTORY OF THE D.S.O.
Continued from page 25

Service Cross for gallantry in action during the First World War, and its grant to the Merchant Navy was legalised by an Order in Council of May 1931.)

Ever since its institution the D.S.O. has been made by Messrs. Garrard and Co., Crown Jewellers, of London. According to the early correspondence it was originally manufactured in gold at a cost of £13-£15. Later, probably at the time of the Boer War, it was made in silver gilt, and has been so ever since. The cost nowadays is approximately the same as that quoted.

According to figures published in December 1953, the D.S.O. has been bestowed upon 16,476 officers of the Royal Navy, the British Army, the Merchant Navy, and Commonwealth Forces since its institution in 1886. One bar has been awarded to 1268 officers; two bars to 132; and three bars—making a fourth award—to no more than 17.

—From the London "Navy."

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