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THE NAVY

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There is talk of rationing by price regulation—in closure has caused. Petrol rationing is imminent.

Britain's gold and dollar reserves have been cleared parts of the canal—choked by the blockships which Egypt sank when the Anglo-French action began.

Apart from any question of the morality of the Anglo-French intervention—and the British Commonwealth itself is divided on this point—what has this action gained? In the immediate sense the result has been chaos. The canal has been put out to keep the uneasy cease-fire between Egypt and Israel. British Naval salvage units, meanwhile, have been clearing parts of the canal—choked by the blockships which Egypt sank when the Anglo-French action began.

Above all, a harsh result has been a rift in Anglo-American friendship which temporarily at least has pushed the two countries further apart than at any time since before World War II.

These, for Britain, are the immediate fruits of Suez. What will be the long-term results? Time alone will tell. But if Britain has achieved her intention of breaking the dangerous Egyptian clutch on the canal, the results are very significant indeed, not only to Britain herself but to the whole of the maritime world.

The Suez Canal, as the 1888 Convention emphasized, is a waterway of international importance—economically, commercially, and strategically. In fact it is the world's most important waterway and its control cannot be allowed to rest in the hands of a capricious dictator.

Britain from the outset has urged international control of the Canal. The London conference of 22 maritime nations supported this contention. It is to be hoped that the United Nations, now that they have moved into the Canal zone, will ensure that the international character of the canal is continued.

The Middle East affair should bring home to the Governments of the Commonwealth countries the vital necessity of being prepared to cope with "local" wars, waged with conventional weapons, as well as the dreaded global war with its fearful potential of destruction by nuclear weapons. A conflagration can be prevented by prompt action at what is a small incipient fire.

Since the end of World War II British forces have been engaged in local wars in Korea and now in Egypt. They have been committed to military action in the guerilla fighting in Malaya and against the Mau Mau. France has been engaged in Korea, in Indo-China, and in North Africa. We have seen the "local" war between India and Pakistan, and the so-called police action which failed to continue Dutch rule in the East Indies.

Australia, as well as the other Commonwealth countries, must be prepared to meet "local" aggression. We must not forget Indonesian ambitions in New Guinea. We must not ignore the fact that for our own protection our interests are tied to the interests of other nations, and that we must be ready to discharge our responsibilities if called upon to do so.

The mobility and flexibility of the Navy makes it our first line of defence. It should be given the men, arms, and facilities to carry out its duty with confidence.

AIR AND SEA

No sensible person would attempt to underrate the immense significance of aircraft development—in peace and war. But there are, regretfully, some who see modern aircraft as the sole answer to our needs of transport and aims.

An interesting sidelight on this was given in Britain recently by Admiral Sir Michael M. Denny, when speaking to the United Service Institution. He pointed out that U.K. imports and exports in 1954 from all areas by air was approximately 300,000 tons out of a total of dry cargo imports and exports of 90 million tons.

He went on to illustrate the relative carrying capacities of ships and aircraft by comparing a modern cargo vessel and a Bristol Britannia.

"It is estimated that it would take 20 Britanni at one year the same quantity of bulk cargo across the Atlantic as one modern cargo ship of 10,000 tons deadweight," he said.

"This estimate is based on the assumption that the aircraft would fly 3,000 hours a year and that the ship, under war conditions, would make from four and a half to five round voyages annually."

"As a new vessel of this kind would cost under £750,000 and the cost of 20 Britanni would be in the region of £15 million, it is clear that the use of aircraft for the conveyance of any worthwhile quantity of bulk cargo would be impracticable, even if the number of aircraft could be spared for such a wasteful service."

ORIENT LINE Serves 5 Continents

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DIVING TO GREAT DEPTHS

News was received in London recently from H.M.S. "Reclalm" (Lieutenant-Commander G. M. H. Drummond, R.N.), the Navy’s Experimental Diving Ship, that a new world record for deep diving has been established in Norwegian waters.

The dive was made from H.M.S. Reclalm by Senior Commissioned Boatswain George Wooley, aged 34, of Plymouth, who reached a depth of 600 feet in a helmeted flexible diving suit, receiving a breathing mixture of oxygen and helium supplied from the Reclalm.

The previous world record was established by Petty Officer Diver William Billard of the Royal Navy, who reached the depth of 535 feet in Loch Fyne on August 28, 1948.

The record dive was made in accordance with new diving tables calculated by two officers of the staff of the Royal Naval Physiological Laboratory, Alverstoke, following research carried out at this establishment. The two officers, Mr. H. V. Holmleman, Senior Scientific Officer, of Gosport, and Surgeon Commander W. E. Crocker, R.N., are present in H.M.S. Reclalm.

Senior Commissioned Boatswain Wooley joined the Royal Navy in 1939. He has been a diver for 12½ years and took part in diving operations during the search for the submarine Affray, lost in the English Channel. In recent trials he reached a depth of 1,090 feet in an observation chamber. He is a married man with daughter aged 12 and his home is in Bridewell Road, West Hill, Plymouth.

During the record dive Able Seaman George Cutas, 24, of Newcastle upon Tyne, was the diver’s assistant.

Since the world record dive of 535 feet carried out on August 28, 1948, the Royal Navy has been steadily increasing its efficiency in the realm of deep diving. The object has not been to establish further records but to make diving to great depths a matter of routine.

Deep diving means the operation of flexible suited helmet divers, supplied and controlled from a surface vessel, to depths to 180 feet and downwards. Many people have the impression that the helmet diver has been outdated by the invention of the aqualung. This is quite false. The aqualung is a shallow diving apparatus. The French, the acknowledged experts in its use, say that only specialists should venture with it below 60 metres (just under 200 feet) and that the "fatal limit" is not far beyond 80 metres (260 feet).

More picturesque language is used by an American writer describing the use of the aqualung. He says that "the free diver who descends even to 200 feet has one foot on a tightrope between mortality and oblivion." Hence the deep diver begins roughly where the aqualung diver leaves off.

This does not mean that it will never be possible to "free swim" at great depths with self-contained apparatus. This may come in the not too distant future but not with apparatus of the aqualung type, which is fundamentally unsuitable for very deep work, and not without elaborate control arrangements comparable with those now necessary for the helmet diver.

There is at present no known depth limit for the deep diver. He uses a breathing mixture of oxygen and helium. Two ships, the Experimental Diving Ship, H.M.S. Reclalm, and the Submarine Rescue Ship, H.M.S. Kingfisher, have recently been fitted with completely new systems for supplying divers with this mixture. It is an improvement on air for two reasons. First, nitrogen in air produces a narcotic effect which prevents the diver working at full efficiency in depths exceeding 240 feet. Second, the oxygen content of air is such that it reaches a toxic pressure just under 300 feet. Three hundred feet can, therefore, be regarded as the outside safety limit for a diver using compressed air.

There is no such limit for the oxy-helium mixture. Helium apparently has no narcotic effect. If such an effect does exist, it is likely to be at a depth beyond that at which other limiting factors will intervene. The chief of these is the decompression time.

Oxygen poisoning can be prevented by limiting the percentage of oxygen in the mixture. Such a mixture does not provide adequate oxygen until a certain depth is reached. A change over must take place from air to mixture at a fixed level both in the descent and the ascent, or the diver will suffer from lack of oxygen at shallower depths.

The result of experimental work on oxy-helium diving so far is that divers working from the Reclalm and the Kingfisher can carry out routine dives to a depth of 430 feet and work at this depth for a maximum time of 20 minutes.
with ease compatible with that experienced at about 100 feet when breathing air.

This limit is not governed by physical exhaustion but by the fact that while the diver is at depth, the helium gas penetrates his tissues and the longer he stays down the more helium is absorbed. This means that a diver will take longer to "decompress."

To "decompress" in the shortest possible time without risking "decompression sickness," more generally known as "the bends," is a complex problem, particularly with helium, and one which has not yet been completely solved. Much original work has been done recently on this subject at the Royal Naval Physiological Laboratory, Alverstoke, Hants., and results are encouraging.

The importance of keeping the decompression time as short as possible is best illustrated by quoting an example. After five minutes on the bottom at 600 feet, a diver must remain under gradually reducing pressure for five hours and 38 minutes before finally "surfacing."

The term "surfacing" applies to the end of the decompression period. At an early stage he enters a submersible decompression chamber which is lowered down to meet him. This chamber is a vertical cylinder with doors at each end. It is supplied with air from the surface and contains an attendant. When it is lowered into the water the lower door is open and air pressure keeps the chamber clear of water on the diving bell principle.

At a depth of some 200 feet, the ascending diver enters the chamber through the lower door. Here the attendant takes the diver in charge, removes his heavy gear, disconnects supply pipe and breathing tube and finally closes the lower door, so locking in the chamber air pressure equivalent to its depth. The chamber is then hoisted inboard and decompression proceeds in safety, pressure in the chamber being gradually reduced until "surface" pressure is reached. Pure oxygen is breathed at the later stages of the decompression period and this speeds the elimination of helium.

Throughout the dive communication is maintained by loud speaking telephone with the diver, and the attendant in the submersible decompression chamber.

Experience is needed to interpret the diver's voice, distorted as it is to a "Donald Duck" quality by the effect of pressure and helium. Experience and careful drill are also needed in a variety of tasks on the surface.

The operation of the control valve which regulates the divers' gas supply, the handling of his breathing tube and supply pipe, the accurate timing of the decompression schedule, are a few of many duties to be carried out. All are important to the well-being of the diver. Some are essential to his life.

A successful deep dive is therefore not only a question of skill on the part of the diver. It is a team event.

Why is deep diving necessary? To save life. There are vital tasks for divers in connection with submarine escape and for this purpose it is necessary to establish how far it is practicable for a diver to descend and work. It is with this object in view that trials continue.

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**NEW FIRST LORD DISCUSSES R.N.'S ROLE IN PEACE AND WAR**

Making his first public speech as First Lord of the Admiralty, the Rt. Hon. Viscount Hallifax, O.C., at a Navy League luncheon organized to commemorate the anniversary of Nelson's victory at Trafalgar, said he was "faced inconceivably with the necessity for a programme of new construction at a time when public opinion is visibly clamouring for a reduction in the Estimates for the Fighting Services."

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**SALK POLIOVaccine**

SALK poliomyelitis vaccine apparently can be given with relative safety to both children and adults during an outbreak of poliomyelitis, the Surgeon General of the United States Navy, Rear Admiral Bartholomew W. Hogan, M.C., U.S.N., announced recently.

Releasing the results of use of the vaccine during an outbreak of poliomyelitis last autumn among Navy families living in Hawaii, he stated that there was no evidence that the vaccine had caused paralysis to occur among persons who were possibly infected with the virus at the time of vaccination.

Because past outbreaks had tended to be more severe in military families stationed in Hawaii than in the civilian population, it was decided to give the Salk poliomyelitis vaccine to the approximately 26,000 children and parents before further spread of the disease could occur. Previous outbreaks tended to last for several months.

Admiral Hogan directed that a special allotment of vaccine from the Navy's share under the Federal Interstate allocation plan be sent for this purpose. Vaccine was also made available by the National Foundation for Infantile Paralysis and the Territorial Health Department.

A voluntary programme of vaccination was started in early October and approximately 80 per cent of the total children and married adults applied for and were given two doses of the vaccine.

About 30 days after the vaccine programme was started the outbreak was almost over.

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**THE NAVY**
FIFTY YEARS AGO SAW...

THE FIRST BIG-GUN SHIPS

By NORMAN NIDELL

October saw the 50th anniversary of the completion of H.M.S. "Dreadnought," the first big-gun ship of the Royal Navy designed under the inspiration of Lord Fisher. With the completion reconditioning of H.M.S. "Oblivion," we approach another revolution in naval armament and possibly also in naval shipbuilding, and it is therefore particularly appropriate that we should look back and consider what the "Dreadnought" and her sisters meant to the Royal Navy of 50 years ago.

NEW ships were ever more aptly named than Dreadnought, first of the Royal Navy's "all-big-gun" vessels, and forerunner of the greatest shipbuilding revolution since the coming of the ironclad.

Commissioned in late 1906, less than 14 months after a "hush-hush" laying-down at Portsmouth Dockyard, Dreadnought owed much of her speedy inception and revolutionary design to the far-seeing genius of Sir John Fisher, then in his first term of office as First Sea Lord.

It was the volcanic Fisher, who, acutely aware of the rapidly growing German menace in the North Sea, refused to be content with a capital vessel of this size having been fitted with the new machinery, and gave her several knots in hand over existing battle-ships. Provision was also made for the use of either coal or oil fuel—another revolutionary step.

Armour, too, had been increased and now reached a maximum thickness of 11 inches at vital points. Submarine attack was anticipated by the addition of substantial torpedo-holes, both at, and below the water-line.

But, by far the most outstanding feature of all was the hitting power of this new £1,750,000 warship. The primary armament consisted of no less than ten 12-inch guns—six more than that of any other vessel afloat. These were mounted in five twin turrets; two fore, one aft, and one on either beam; an arrangement enabling eight of the guns to be trained on either broadside, or alternatively, six ahead or astern.

Here indeed was the "all-big-guns" ship which, with its vengeance—a vessel capable of taking on two pre-Dreadnoughts on the broadside, or three of the same class firing ahead or astern—this tremendous increase in primary fire-power had been wrought at the expense of the secondary armament—hitherto a fire-controller's nightmare—consisting on previous vessels of a heterogeneous collection of 9.2 inch, 6 inch, and twelve pounders. Instead, only the quick-firing twelve pounders remained, 24 in all, for dealing with venturesome torpedo craft. Five submerged torpedo-tubes, four broadside and one astern, completed Dreadnought's armament; although on later vessels the twelve pounders were to give way to a more lethal 6 inch secondary armament.

Early 1907 saw Dreadnought take her place as flagship of the Home Fleet, a potent reminder to hostile powers of British naval strength. But nevertheless, Britain could not afford to be complacent. Having rendered her existing capital vessels semi-obsolescent in one bold stroke, she now had to maintain her lead in this new field. Germany speedily took up the challenge, widening the Kiel Canal to accommodate the increasing dimensions of her warships, and the final stage of a naval race that was to culminate in the mists of Jutland nine years later, was under way.

By the outbreak of the 1914-18 war, both nations possessed a considerable fleet of Dreadnoughts and battle cruisers, although Britain, by utilising her tremendous shipbuilding potential to the full had managed to increase her
The Royal Navy also held trump cards in the shape of several super-Dreadnought battleships and battle cruisers mounting 13.5 inch guns; whilst almost nearing completion was the Queen Elizabeth class equipped with a 15 inch armament. H.M.S. Dreadnought, in fact, was already middle-aged! Age, however, was no object at the beginning of the First World War, and after taking part in many sweeps of the North Sea with the Grand Fleet, Dreadnought, commanded by Captain Alderson achieved further fame by ramming the U-29 whilst on patrol in March, 1915.

This proved to be the vessel of Commander Weddigen, the submarine ace, who earlier in the war had torpedoed the armoured cruisers Cressy, Hogue and Aboukir within three-quarters of an hour, whilst in the U-9. Responsible also for the loss of the cruiser Hauke, his untimely end must have dealt a grave blow to the morale of the enemy underwater raiders.

But Dreadnought never took her place in the line at Jutland. After the German raid on Lowestoft on 25th April, 1916, the Third Battle Squadron, consisting of Dreadnought and seven pre-Dreadnoughts was detached from the Grand Fleet and based on the Thames as a deterrent.

After Jutland, the brief career of the famous ship rapidly drew to a close. Paid off on 7th August, 1918, the end of the war found her still and deserted, with only the ghosts of an illustrious past for a crew.

She was placed in reserve commission at Rosyth, on 25th February, 1919, and on 31st March, 1920, appeared on the Admiralty "For Sale" list together with the pre-Dreadnought Lord Nelson and others. As a final mockery, two pre-Dreadnoughts, the Agamemnon and Commonwealth survived her, remaining in commission as target and gunnery ships.

Apart from a law suit, the result of a minor collision with a Norwegian vessel whilst moored in the Firth of Forth in December, 1920, little more was heard of Dreadnought until August of the following year when she was finally sold as scrap for £44,000.

Ironically enough, several of the Navy’s pre-Dreadnoughts had played far more active roles in the war than their successor; but there can be little doubt that had war broken out earlier, say, in 1907, Dreadnought would have taken a major part in deciding the issue at sea. As it was, she had to be content to watch others reap the glories of battle in her stead.
**NEWS OF THE WORLD'S NAVIES**

**Two naval aircraft collide in air**

Two Royal Australian Navy Firefly aircraft collided in the air near Jervis Bay (southern N.S.W. coast) on November 27 and the pilot and observer of one were lost.

A helicopter rescued the pilot and observer of the other aircraft after it had "ditched" into the sea.

The aircraft were on a training flight from the R.A.N. air station at Nowra.

The missing pilot and observer vanished when their plane hit the water with great force.

A wide search was carried out by three air-sea rescue launches, two helicopters, and other naval aircraft, without success.

**Admiralty gift brownie by "Brittenham"**

The commander of the Royal Yacht Britannia, which brought the Duke of Edinburgh to Australia for the Olympic Games last month, presented three glass panels to the N.S.W. branch of the Royal Empire Society.

The panels, a gift of the Admiralty, were from the previous Royal yacht, Victoria and Albert.

The panels bear a coloured arabesque design.

**Royal Marines to serve in small ships**

The Admiralty has announced that Royal Marine detachments are to be embarked in certain frigates instead of seamen.

This is a departure from the traditional sea service of Royal Marines, who until now have served only in ships of the size of cruisers and above.

The first of three frigates to be manned by marines is H.M.S. Loch Killpack, which sailed from Portsmouth recently for service on the East Indies Station and the Persian Gulf. The frigate carried 20 marines.

**Levering of W.R.N.S. mizen mast**

The lower age limit for entry into the Women's Royal Naval Service has been reduced from 18 to 17½ years. The consent of parents or guardians will, however, be required by all recruits wishing to enter the Service under the age of eighteen.

In addition to widening the recruiting field, the new minimum age limit will shorten the gap between leaving school and entry in the Service. It will also enable young women of this age group, from whom many enquiries are received at recruiting offices, to enter in a full-time career in the W.R.N.S.

Engaged "won't be bullied," says First Lord

England would not be bullied over her actions in the Suez Canal zone, the First Lord of the Admiralty, Lord Hailsham, said at Oxford (U.K.), on November 30.

Referring to criticism of Britain in the United States and United Nations, Lord Hailsham said "We will not be sermonised. And please, we do not wish to hear any moral lectures from those whose moral weakness and incapacity to see the facts was the precipitating factor in the present crisis."

Lord Hailsham said he had been trying to arrange a technical meeting on clearing the Suez Canal.

"That meeting has so far been frustrated in New York," he added.

Lord Hailsham, whose mother was an American, said: "For the first time since the war, almost for the first time in my life, I have begun to find it hard to say that I am half American and still harder to say that I am proud of it."

**Explosions, fire on former H.M.S. ship**

The former Australian Navy L.S.T. Tarakan, on which eight men lost their lives in an explosion and fire in Sydney Harbour in 1950, was nearly the scene of a similar disaster further upstream on November 27.

Reports state that a spark from an oxy-acetylene torch caused an explosion, in which the oil tanks were set on fire and the black smoke hundreds of feet in the air.

Two workmen on the ship probably saved their lives by throwing several oxy-acetylene cylinders overboard to prevent their exploding in the flame.

Firemen used foam and water on the fire for more than an hour before bringing it under control.

**Museum gets mast from Royal Yacht**

"The former mizen mast of H.M. yacht Victoria and Albert III has recently been erected outside the National Maritime Museum. The Museum has long desired a spare of suitable dimensions from some historic ship to replace the rather inadequate flag staff previously used, and so was extremely glad to accept the gracious offer by Her Majesty the Queen of this mast, together with other relics from the old Royal Yacht."

Plans for the rigging of the mast were prepared by the Constructive Department of H.M.: Dockyard, Chatham, but some difficulty was experienced in finding firms who would undertake the necessary rigging and erection.

Finally the work was accepted by two who have always proved extremely good friends to the Museum. Messrs. William Cory & Son, Ltd., undertook the rigging and preparation of the mast, while Sir Robert McAlpine & Sons Ltd., who had previously lifted the mast from the river and brought it to the Museum grounds free of charge, undertook the ground work and actual erection, which has recently been satisfactorily completed.

The mast is from a single tree, and was originally 129 feet in length, but the lower part, formerly below deck level, was found to have opened up somewhat, and so was found advisable to cut it away. The mast now stands 105 feet above the ground, the same height that it previously rose above the deck of the yacht.

**First aircraft direction frigate**

H.M.S. Salisbury, first of the new aircraft direction frigates was commissioned on October 22 at Plymouth. She is also the first ship to be built in Devonport Dockyard since the war.

H.M.S. Salisbury, commanded by Commander W. A. E. Hall, R.N., has an overall length of 340 feet and a beam measurement of 40 feet. Her main armament will consist of two 4.5 in. guns with two smaller weapons.

She is the seventh ship to bear her name in the Royal Navy, the first being a 48-gun fourth-rate yacht Victoria and Albert III being launched in 1868 by the sixth an American World War I destroyer, transferred to the Navy in 1940.

The Deans and Chapters of the Cathedrals at both cities of Salisbury and the latter in the Rhodesian.

At the commissioning ceremony Salisbury, Rhodesia, and the English cathedral city of that name were represented by the High Commissioner for the Federation of Rhodesia and Nyasaland, Sir Gilbert McCall Rennie, G.B.E., K.C.M.G., M.C., and Lady Ren nie and the Bishop of Salisbury, the Rt. Rev. William L. Anderson, D.S.C., D.D., Mrs. Anderson, and civic representatives from Salisbury.

The Commander-in-Chief, Plymouth, Admiral Sir Mark Sykes, K.B.E., C.B., D.S.O., and Lady Sykes and the Lord Mayor and Lady Mayoress of Plymouth were also present.

**American fighting forces warned for readiness**

Early last month the United States Joint Chiefs of Staff stated that U.S. service commanders in all parts of the world had been warned to tighten their defence readiness.

American Associated Press reported that some naval training manoeuvres had been cancelled.

As a preparatory measure, it stated, the U.S. Navy had ordered a big air strike force to sea.

The 60,000-ton carrier Forrestal had steamed out of Norfolk, the heavy cruiser Des Moines, and more than a dozen destroyers.

U.S. Navy headquarters said the ships would remain under the direct operational control of Admiral Jerauld Wright, Supreme Commander of the Atlantic alliance Naval forces, and commander of the U.S. Atlantic Fleet.

The newsagency quoted the Joint Chiefs of Staff as having emphasised that there was "no new, imminent crisis."

**Tribute to Royal Navy salvage work**

Sydney "Daily Telegraph's" correspondent in the Suez Canal Zone, Ronald Monson, in a dispatch to his newspaper late last month, praised the Royal Navy's operations in clearing part of the Suez Canal of Egyptian blockaders.

**HOSIES**

At the corner of Flinders & Elizabeth Sts.
Hosies (laodicean gold) will become known as a tradition in Melbourne, in the Royal Navy. The luxurious dining rooms, cozy lounges and gardens, all featuring the incomparable extra-high terrace and the self-contained beautifully furnished restaurants. Superb cuisine served in collaboration with the most luxurious and the best wines and champagnes. The atmosphere, entertainment and service are unsurpassed.

The Grill Room and Bar, and the private dining room the "Lady Clunies" are available for the most exclusive arrangements and entertainment of clients and guests.

The Government and those with security passes accepted. Hosies Balmoral and London Diner. Open from 12 noon to 12 midnight daily.

Telephone: MB 5521
THE CHINA RIVER GUNBOATS
By A. CECIL HAMPSHIRE—In London

In the space of days between the wars before past and Garamillas Lists were thought of, the average young Lieutenant-Commander might well find himself holding a unique command.

Not only would he have become a fresh water sailor, but in addition to normal responsibilities, he might be called upon to cope at the drop of a hat with the daily threat of the sudden appearance of pirates that her successors were well aware of the effect on morale of a body of men "flying fish" who were limited compass of a small vessel in a hot, moist climate. Half the crews were therefore relieved annually, each having completed the statutory 2 years' commission by the time they reached home.

But life in gunboats was popular and never monotonous. Political situations caused by the ambitions of aggressive war-lords blew up like tropical storms in their patrol areas, and were handled by the gunboats on the spot with such consummate skill that they rarely hit the newspaper headlines at home. Activity against pirates and bandits, as well as the Tsing-tung, which, even without the rise of the new Tsung, could never have resumed their historic role. The Peterel and Cicada were sunk by Japanese bombs in December, 1942, and the Tern and Moth scuttled at Hong Kong to avoid capture in the same month.

The Sandpiper, Falcon and Gannet were given to the Chinese in 1942, and eight others left to fight the Japanese. Of these the Aphids, Great Ladybird and Cricketer joined the Medway gunboats. Continued on page 25

NEW BADGE DESIGNED FOR PATROL BOATS

A n official type badge symbolising the characteristics of fast moving craft has been designed by the Royal Navy for fast patrol boats.

In this category are craft known in World War II as Motor Torpedo Boats and Motor Gun Boats, but minelaying coastal craft and craft powered by gas turbines are included in the China Squadron.

The badge is based on that originally designed for the first Motor Torpedo Boat Flotilla in 1937, and subsequently used unofficially as a starboard badge for all M.T.B.s and M.G.B.s.

A flying fish is intended to symbolise the high speed and skimming characteristics of these light craft, while the scorpion's tail indicates the sting of speed and its powerful tail. In a former design the sting of the scorpion's tail was facing aft—an allusion to the fact that torpedoes fired in the early M.T.B.s were launched astern through the transom.
IN THE COLD SOUTH

How many cigarettes can 230 Naval ratings be expected to smoke during six months in the Antarctic? How much chocolate will they eat? How many can their own alcoholic beverages be consumed in a part of the world where there will be few opportunities for refreshment?

These questions arose on board H.M.S. Protector before she sailed from Portsmouth on October 5 for her second commission in the Falkland Islands and Dependencies. The answers are:

- Fifty-four thousand cans of beer, each containing twenty fluid ounces and storing them in an even temperature magazine.
- More than a million cigarettes and seven tons of chocolate and sweets for sale in the ship's canteen.
- The constituents of thirty-thousand portions of ice cream which experience has shown to be still popular in sub-zero weather.
- Seventy films, more than twice the number of library books usual for a ship of her size and a large quantity of recorded music.

Special attention was also paid to the educational and handicraft fields. Some ratings have already decided on courses in language study and classes in French, German, Spanish and Portuguese have been arranged. Others are taking correspondence courses and receiving instruction on board for examinations.

During the last commission, the ship's company spent more than £500 on rug making and it is anticipated that this will be equally popular again, special arrangements being made for the supply of materials. Before the Protector returns to Portsmouth again towards the end of May next, it is expected that one man in two will be busily making things for the home, or engaged in model making or leatherwork.

Strange leisure-time pursuit on board is probably that of the Chaplain, the Rev. Eric Milner, M.A., R.N., whose home is at Ossington, Yorkshire. He has undertaken to collect fleas, lice and parasites for the South Kensington Natural History Museum from Antarctic birds. He has received special instruction in trapping.

The Protector will assist the Governor of the Falklands Islands and Dependencies during the Antarctic season in maintaining the security of the territories under his jurisdiction. After being specially strengthened, she took over this work for the first time from a frigate of the American and West Indies Station in the autumn of 1955.

For the first time, she has a survey officer and a small group of ratings trained in hydrographic work. They will undertake exploratory survey work in the vicinity of Graham Land to add further information to the charts of that region. Two S.55 helicopters are embarked for ice spotting, communications and transport.

Before leaving Portsmouth Dockyard the Protector was visited by the First Sea Lord, Admiral of the Fleet the Earl Mountbatten of Burma. He flew to the R.N. Air Station at Lee-on-Solent and was transferred to one of the ship's helicopters, landing on her small flight deck at the end of the ship.

H.M.S. Protector is commanded by Captain J. V. Wilkinson, D.S.C., G.M., R.N.

AMERICA'S 350th BIRTHDAY

ONE of the main events in next year's celebrations in the United States of America's 350th birthday will be a joint Anglo-American exhibition — "The British Heritage," which the U.K. Central Office of Information is producing; and "New World Achievement," which is being prepared by the United States Authorities.

The exhibition will be part of a year-long series of commemorative events called "The Jamestown Festival: America's 350th Birthday," costing over £60 million. Britain is the only nation invited to join with the U.S.A. in the organisation of the celebrations.

The British display will deal with the background to the colonisation of America. It was on May 16, 1607, that three British ships, which had sailed from Blackwall, London, moored at Jamestown, Virginia. That was both the beginning of the American States and the British Commonwealth.

The influence of the British legacy on American life will be traced and there will be an exposition of U.K. colonial policy demonstrating the development of the Commonwealth to the present day. The outstanding exhibit will be a large reconstruction of John Cabot's ship, "The Matthew." Through Cabot's famous voyage of 1497 Britain established a legal claim to a share in the North American continent.

One display section will illustrate the expansion of the British Empire, the development of Colonial policy after the loss of the first "Empire" in America, and the growth of the British Commonwealth of Nations.

PERSONALITIES

FIRST COMMANDING OFFICER OF VOYAGER APPOINTED

The first commanding officer of the Royal Australian Navy's new Daring Class ship "Voyager" will be Commander G. J. B. Crabbe, D.S.C., R.A.N., who was in charge of the forward gun turrets of the cruiser "Sydney" when she sank the Italian cruiser "Bartolomeo Colleoni" in the Second World War.

Commander Crabbe, a graduate of the Royal Australian Naval College, at present is Naval Member of the Joint Planning Staff in Melbourne. He takes up his new appointment in the acting rank of Captain on December 12.

Besides serving in the Sydney in the Second World War, he also served in the destroyers Rotherham, Xapir and Arunta. He was awarded the Distinguished Service Cross in 1946. When he graduated from the Naval College in 1939 he was awarded the King's Medal for having displayed the most gentleman-like bearing and good influence among his fellow cadets during his four years of training.

After he had been appointed to the command of the Battle class destroyer Anzac in 1954 she participated in two major maritime exercises in south-east Asian Waters.

The Voyager is the first of three Daring Class ships to be completed for the R.A.N. She was launched at Cockatoa Island Dockyard on March 1, 1952, and will be commissioned on February 12 next.

The other two ships are the Vendetta, launched at the Naval Dockyard at Williamstown on May 3, 1953, which will be finished in 1958; and the Vampire, launched at Cockatoa Island on October 27.

Each ship will have a full load displacement of 3,500 tons and carry six 4.5 inch guns, six 40-millimetre anti-aircraft guns and 1021 inch torpedo tubes.

THE NAVY

December, 1956.
NAVAL DIPLOMACY
By Admiral Sir Gerald Dickson, K.C.V.O., C.B., C.M.G.

IT was in 1905 that the Entente Cordiale, that guarded and loosely defined defensive arrangement between the United Kingdom and France, was brought into existence. I do not think that it aroused much enthusiasm on our side of the Channel; it certainly did not in France. The French looked on it as a formula which would probably never bind us. Anglo-French relations had been bad for a long time and the Fashoda affair which had aroused a storm of execration in France was recent history. In fact, we were still Perfidy Albion and not to be trusted.

However, the official entente was to be followed by a visit of the French Fleet to Spithead in August. It soon became evident that its main effect was to be felt in France. The French people had indeed, it so often had, to show France that we desired to be trusted.

To come back to our story, I had been appointed, for the occasion, additional Flag Lieutenant and Interpreter to the Commander-in-Chief, Portsmouth, and so was well placed to see all the fun. Jacky summoned a meeting of the large number of officers and men under his command, and gave a lecture before them, enjoining them to show their public and the Navy that there was to be no sign of that perfidy in the case of our Press for which Frenchmen, mistaking our natural reserve for coldness towards us, accused us, but that all was to be hearty cordiality. This note was sounded high up on Mount Olympus, in fact by Admiral Sir John Fisher ("Jacky" to the Navy) the First Sea Lord. He, realising that the balance of sea power would be completely upset by the fast growing German Navy with, behind it, the Chauvinism of the Kaiser, Wilhelm II, was determined to do all in his power to get France and her ally, Russia, on our side of the fence.

He saw that if ever the Navy had played its part in peaceful diplomacy (as, indeed, it so often had) it must, on this occasion, break all records. He went into every detail of the week's programme. Nothing escaped his eye and where any obstacle was raised to some imaginative but rather unorthodox suggestion, he kicked it out of the way.

Publicity on a grand scale was the keynote and it had to be such that its main effect was to be felt in France. The French people had to be told. So the Press machinery was got going. This was not difficult in the case of our Press for Fleet Street liked Jacky. He had always kept his journalistic friends well informed on naval matters even, sometimes, questions which My Lords considered highly confidential. Many senior officers shuddered at such goings on! But he knew that without the Press his schemes for strengthening the Fleet would never get the necessary backing of the public and the Government. Unfortunately, it has been rare that Boards of Admiralty have understood how to handle publicity and, however great the need, they just haven't liked getting mixed up in it. More is the pity when the safety of the country becomes involved.

He saw that it was the pity when the safety of the country becomes involved.

It was the fashion in other days for gilded youth to go on what was called the Grand Tour of Europe. Today such a man as Mr. Dennis Puleston goes in a small boat to all kinds of more or less remote islands, which, by the way, have less than justice done to them in the end paper map.

Conrad says that journeying in search of romance is much like trying to catch the horizon; it appears that the inhabitants of Anegada in the British Virgin Islands make their living, says the Pilot Book, by fishing and wrecking, and when a lighthouse was recently placed on Sombrero Island as a guide to shipping in the vicinity of Anegada, some of the islanders protested against the demands for even demanded compensation from the British Government for having ruined their chief source of income!

Another protest, alas too late, came from Emil, the versatile Danish cook, etc., who sailed for a while with the author. A certain disaster, he said, would not have happened if one had re-frained from the fatal practice of whistling before breakfast, which, he said, one should never do at sea.

A shipmate of another sort was Tehate, a Marquesan, who as a boy had run away from home and after many years was returning, very apprehensive of his father's wrath.

His father, however, had died and Tehate has since, from an aged shipmate, said, "I think he died along shark belly long time. Now he stop here all time"—preferred to abandon his inheritance of 1,000 acres of fat lands and continue sailing with out author. And we who read this fascinating book can well understand the spell that Mr. Puleston cast over him—H.B.

In the London "Navy" Salt in Their Blood, by Francis Vere, published by Cassell (U.K.)

"The officers and men under your command have demonstrated that the Royal Netherlands Navy is manned by seamen as brave and as expert as those we learned to admire in former days."

This tribute to the brilliant work and heroism of the Dutch Navy during World War II was paid to the Commander-in-Chief in a letter from the then First Lord and First Sea Lord and now, in his book Salt in Their Blood, Francis Vere tells the story of those "former days." It is the tale of a company of great sailors who, as he rightly suggests, should be better known to Englishmen.

For upwards of 80 years from 1569, when their Navy was born with the commissioning by William, Prince of Orange, of 18 privateers, the Dutch fought the Spaniards until their independence was secured in 1648.

Marten Tromp had, in fact, made this result inevitable when he finally smashed Spanish sea-power at the Battle of the Downs nine years before. Tromp was to be killed soon after noon at the battle off Scheveningen in the first Anglo-Dutch war. But under him great leaders were being trained — de Witt, the Evertsens, Bankart, de Ruyter and many others — who were to prove in the later Anglo-Dutch wars that their determination, resource and superb skill and courage were second to none.

Dr. Rupert is perhaps best remembered by Englishmen as the Admiral who sailed his fleet into the mouth of the Thames in 1667 and inflicted on England her worst naval disaster. This, however, was not a battle but a walkover and an example of what happens to a seafaring people when they lay up their fleet.

His great reputation — the creation of the Nelson of the Netherlands — lies in his brilliant tactics, notably in the long drawn out four days' battle against Monck in 1666 and in his decisive and far-reaching victory over the combined Anglo-French Fleet off the Texel in 1673.

This book is in no sense a treatise on naval strategy and tactics. It has many first-rate photographs and is written in nontechnical language, to be read and enjoyed by all.-—G.P.T.


The revival of The World's Warships, formerly a well-known naval pocket book, is well laid out and reasonably priced, and should be of considerable interest to those for whom Jane's Fighting Ships is too expensive inasmuch as it contains a considerable amount of information on the modern warships of the world's navies and a short history of the major types of warships over recent years.

Although written by the editor of Jane, a successful effort has been made, in a somewhat more informal approach to the reader in style, layout and comment.

The old rigid classification by country has been abandoned and ships are now grouped by type.

Blue Water Voyage, by Dennis Puleston; published by Rupert Hart-Davis (U.K.)

It was the fashion in other days for gilded youth to go on what was called the Grand Tour of Europe. Today such a man as Mr. Dennis Puleston goes in a small boat to all kinds of more or less remote islands, which, by the way, have less than justice done to them in the end paper map.

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The old rigid classification by country has been abandoned and ships are now grouped by type.
NAVAL DIPLOMACY

Jacky was on a particularly good—a favourite expression of his. He told us that our sincerity towards France had made evident. The effect on the French Navy was immediate. I exclaimed: "Entente Cordiale ça y est!" And so it was.

The Portsmouth festivities were repeated on a smaller scale on some foreign stations. In return for a visit by the French China Squadron to Hong Kong, H.M.S. King Alfred, flagship of our China Squadron and to which I now belonged, proceeded, at the invitation of the French Government, to Saigon. Arrived up the river the King Alfred was berthed alongside in the heart of the town. A series of high officials paid the usual calls and delegates from hospitality committees came on board to discuss the various fixtures arranged in our honour. We were obviously going to have a full time of it. A few of us had gathered in the Ward Room Smoking Casemate for a gin and a talk about who should go to which country, and what about our entering for it? I agree that this was a brilliant idea if we could acquire an equipage and the necessary flowers. A glance at the busy streets showed us that the local facce was a sort of small victoria drawn by a pair of small good goers. Summoning the Ward Room Boy we instructed him to hire one of these outfits for the day and, also, "Catchee plenty flowers, chop chop.

The voyage had time to recede in an electric thrill—Edward VII, deanobair, smiling and friendly, but so naturally and absolutely regal; the Queen, irresistibly charming, royally gracious and, indeed, quite witty. H.M.S. Queen Alexandra was a tenseness in the air as we awaited the arrival of Their Majesties, for this visit by the British monarchy to a French warship had, in those days, something of very special significance. At the appointed moment the royal barge drew alongside. (Here, let the commentator whisper a final descriptive detail: the French had built a double-width gangway for the occasion so that the King and Queen could gain the quarter-deck without loss and probably with greater advantage than through the Canal.)

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The world's largest seagoing ship is taking shape at the former dockyard at Kure having been launched in August. She is American designed and will be of about 85,000 tons displacement, being built for Universal Tank Ships, a Liberian flag line subsidiary of National Bulk Carriers of New York.

A sister is also on the stocks, and two of 87,000 tons displacement are under design. They are to be dual purpose vessels to carry either oil or ore. It is this type of tanker which could make the "round Africa" voyage without loss and probably with greater advantage than through the Canal.

We work for years aboard for U.K. shipyards

Recent large orders placed with U.K. shipyards bring the total up to a level which guarantees full-time work for nearly 5 years ahead for the ship building industry.

Eighty ships, totalling 514,000 tons gross, were ordered from July to September, making the total for the first nine months of this year 222 ships of 1,266,000 tons gross.

More than 30 per cent. of the new tonnage ordered is for export.

Orders for the whole of 1956 are likely to reach at least 14 million gross tons.

Telephone cables from the Atlantic ocean

A new era for cable communications opened when the trans-Atlantic submarine cable linking Britain to Canada and the United States came into operation on September 25.

These are the first long-distance telephone cables in the world and have been made possible through the development by U.K., U.S. and Canadian engineers of the submarine repeaters, or amplifiers, that are built into them every 40 miles.

They provide 29 telephone circuits to New York and six to Montreal that will be quite free from the uncertainties and fade-outs that affect radio-telephone circuits. In addition, there are six new telegraph channels to Canada to be used to improve communications with Australasia.

The cable to Canada is the latest addition to the Commonwealth Telecommunications System, which comprises over 150,000 miles of submarine cables, many thousands of miles of landlines and some 200,000 miles of radio circuits.

The whole system is now run by public authorities of the Commonwealth countries working within the terms of an intergovernmental agreement.

It is the largest cable network in operation. In Australia the network connections through the Overseas Telecommunications Commission.

A million Britons now sail dinghies

Yacht club secretaries around the coast of the United Kingdom—from the River Clyde in Scotland to the River Crouch in Essex England—report that more men, women and children sailed this year than in any season before, despite one of the windiest and rainiest summers on record.

The total number owning or helping to sail small boats is about one in ten. What was once a minority sport and an expensive minority sport and an expensive one between the two World Wars has become a people's pastime and a people's pastime and a people's pastime and a people's pastime.

Despite the winter, some hardy enthusiasts in Britain plan weekend racing on inland waterways and lakes. Others will be building new boats in backyards and garages. All will draw on the experience and experiments of great designers like Uffa Fox, personal friends of the Duke of Edin.
NAVAL DIPLOMACY
Continued from page 20.

steering lights and an anchor each side "ready for letting go."

But it was the fo'c'slemen who, in my opinion and in that of the greater part of the King Alfred's ship's company (who had now apparently abandoned all other work for the rest of the day), had the most important job of all, i.e., to get the ponies properly doped up for the show. To an Eastern cabbob used to sketchy grooming the treatment these animals now received must have come as a severe shock — washed and scrubbed, anointed with gurnery vaseline, massaged and finished off with brilliantine generously supplied by the Lower Deck; mams and tail plaits with coloured ribbons tied and, finally, hooves painted a most particularly shiny black enamel. Meanwhile we officers covered in every non-working part of the carriage with hairstyling with which banks of flowers were attached.

All was at last completed and amidst the plaudits of the King Alfred's ship's company we trotted off to the racecourse. Arrived there we found that the preliminary procession was just over. So much the better. We had the track to ourselves. Off we went at full speed.

Navy Jim was in the trees.

In the same place, but without the presence of naval horses, is the annual meeting of the ugandan Farmers' association.

Birds — Eating Fish

Birds have been established in Uganda.

Not only do they eat flounders which fall out of nets into the water, but they have been seen to snap at birds swooping low over the water of the River Nile.

According to the Fisheries Officer of Uganda, Mr. D. H. Rhodes, the mud fish is omnivorous.

It is known to crawl or wriggle overland for short distances and during these excursions it feeds on mud fish which have been opened and found full of miller seed.

HAWKER Aircraft, of Britain, are building a new fast fighter specifically stated to be capable of flying at 1,200 miles an hour within 18 months.

"The Hawker Siddeley group, representing in Australia, Mr. C. J. Wood, in Melbourne last month, confirmed that the company was "proceeding with a fighter of advanced design," but said he was unable yet to release any information about its speed or other performance details.

However, he added: "The company is building the plane as a private venture, in the same way as it developed the Hawker Hurricane before World War II. No public money has been spent on it.

"The new aircraft may easily prove to be as important in the future as the Hurricane was during the war."

British comment has included: "An interceptor of advanced design, it was offered to the Ministry of Supply which ordered aircraft for the Air Ministry. But there was no official requirement for such a fighter. It was turned down."

Sir Sydney Camm, chief designer at Hawker Aircraft, had once directed that the Hawker group may have decided to circumvent the existing slow official specification and procurement procedure by building private venture fighter capable of matching the latest U.S. types, such as the Lockheed F.104A Star fighter, said to be capable of twice the speed of sound.

"The Hawker Siddeley Group represents the biggest concentration of military aircraft builders in this country. Before the war it laid down a production line of a substantial number of Hawker Hurricane fighters at its own expense."

Sir Sydney Camm, 63-year-old Hawker chief designer, who is responsible for the new fighter, has been designing fighters for Hawkers since 1925. Among a long list of top fighter planes that have been the Hawker Hart, Fury, Osprey and Nimrod, Hanley, Hurricane, Typhoon, Tempest and Sea Fury, Sea Hawk and Hunter.

SHIPPING warned of volcano danger

Last month shipping near Manus Island were warned to steer clear of an erupting submarine volcano, which was reported to be throwing smoke steam 3,000 feet into the air.

Known as Tuluman, the volcano is about 15 miles south of Manus Island. The West German company, the Graf Zeppelin, bought Manus from the Dutch in 1921 and is using it as a station for balloon trips to the South Pole. The German steamer Elsanna was warned of the volcano but continued her journey.

"The volcano, which is about 15 miles south of Manus Island, has been erupting for several days," the Graf Zeppelin company's chief executive said. "We have been warned to steer clear of it."

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Sir Sydney Camm, chief designer at Hawker Aircraft, had once directed that the Hawker group may have decided to circumvent the existing slow official specification and procurement procedure by building private venture fighter capable of matching the latest U.S. types, such as the Lockheed F.104A Star fighter, said to be capable of twice the speed of sound.

"The Hawker Siddeley Group represents the biggest concentration of military aircraft builders in this country. Before the war it laid down a production line of a substantial number of Hawker Hurricane fighters at its own expense."

Sir Sydney Camm, 63-year-old Hawker chief designer, who is responsible for the new fighter, has been designing fighters for Hawkers since 1925. Among a long list of top fighter planes that have been the Hawker Hart, Fury, Osprey and Nimrod, Hanley, Hurricane, Typhoon, Tempest and Sea Fury, Sea Hawk and Hunter.
PORTRAITS OF LORD NELSON

By OLIVER WARNER — in London

FOR some years I have been trying to find out all I can about the various portraits of Nelson which were made in his lifetime. It is a rewarding pursuit, and I am already certain of some 30 separate paintings, drawings and sculptures of the admiral which derive either from sittings or from what I suppose must have been quick sketches. This is a large number for a man who spent much of his life at sea, and one who died at the early age of 47.

The truth is that Nelson liked being painted. He once told his wife that the next best thing to doing great deeds was to write a glorious account of them. This is very much what Sir Winston Churchill seems to think too, and Nelson had a shrewd idea that the artists who drew him were working for posterity. He enjoyed being a hero, and was not at all averse to dressing up. He liked to look the national figure he became.

My first discovery was that the earliest reliable picture, by J. F. Rigaud, R.A., which was started in 1777 when Nelson was a lieutenant, and finished later, was commemorate in a way which few had suspected. As a very young captain, Nelson served ashore in Nicaragua in an expedition against the Spaniards, and he helped to attack the fort of San Juan, on the river of that name. When he came home, he asked Rigaud to put the fort into the background of the portrait, with the British flag flying above that of the enemy. He wanted people to remember his share in a campaign which had had little publicity.

The next three portraits are of a more private nature. Nelson's friend Collingwood, who was, years later, his second in command, drawing at Trafalgar, drew him in silhouette in the West Indies. Nelson was wearing a wig — he had his head shaved during a bout of fever, and the effect is amusing. Then in 1795, a Leghorn miniaturist painted a study for his wife. It was the last picture done in which Nelson still possessed all his limbs, although he had already lost the sight of his right eye in action in Corsica. The eye damage is not apparent in the Leghorn miniature, or, indeed, in any other except one by a German, which, Nelson said, was the brightest. The first drawings showing the loss of his right arm, was by Henry Edridge, another miniaturist, who drew Nelson at full-length. Edridge was, I think, the only painter who drew him twice from life, once in 1797 and again in 1802, though Nelson seems to have given a succession of sittings to Lawrence Gahagan, a sculptor.

It was Lemuel Abbott, a man not otherwise much known, who first showed Nelson as a popular hero. He sketched him at Greenwich in the winter of 1797, after the battle of St. Vincent, and made an industry of Nelson portraits for the rest of his life. There is nothing comparable in dignity to Abbott's rendering until John Hoppner, R.A., and Sir William Beechey come to do their full-scale canvases, one for the Royal Collection and the other for the City of Norwich. These were finished after the victory of Copenhagen had set the seal on Nelson's earlier exploits.

When Nelson was in Italy, between the autumn of 1798 and the summer of 1800, he was painted by one of two Italian artists.

Two platoons of Hobart Sea Cadets (pictured above) marched through the streets of Hobart on 19th October as part of the Trafalgar Day celebrations. T.S. Derwent held an open day for parents on Dec. 1 at the Naval Depot H.M.S. Huon. A Whaler race resulted in quite a crowd to Watch. The President of the Navy League, Mr. C. H. Hand, then presented prizes awarded to Cadets during the past training year.

The Ulverstone unit T.S. Laven is about to take possession of the new headquarters, the old Rowing Club shed. Prominent citizens donated timbers, frame, etc. The Cadets themselves provided the labour. A cadet crew sailing the 14 ft. dinghy regularly take part in the Ulverstone Yacht Club Saturday races.

The cadets of T.S. Tamar (Launceston) have formed a very efficient Hornpipe Party. The Ex-Naval Men of Launceston have been most helpful with labour and materials for rigging and fitting the new T.S. Tamar, the depot ship.
RE-BIRTH OF THE GERMAN NAVY

By a Special Correspondent

WHILE the training of naval personnel is well under way and its strength scheduled to reach 10,000 men by the end of this year, the build-up of the fleet is of necessity a slow process.

Seven vessels have been commissioned: four former German mine sweepers, stationed at the North Sea port of Bremerhaven and its strength scheduled to reach 5,000 men by the end of this year.

The three patrol boats will form the core of the German Navy's first mine sweeper squadron.

After Germany's surrender, these vessels as well as other German mine sweepers were taken over by the Allies. First under British command and later under the American flag, but with German crews, these mine sweepers cleared the main sea lanes in the Baltic Sea and the North Sea.

It was an arduous and dangerous task taking years to complete and cost the lives of quite a number of seamen and involved the loss of some vessels engaged in the task.

Today, the danger from mines has been eliminated to a large extent. However, ship masters are still enjoined to keep strictly to the lanes marked out for them as having been cleared of mines.

Theoretically, the danger from floating mines will come to an end next year, as experts estimate the average life of this type of mine is twelve years.

While the German Navy expects to be reinforced in the near future by a further batch of former German mine sweepers, the Naval Academy at Kiel is being built up. At present, 40 naval staff officers are undergoing a refresher course at Kiel, during which they will be shown a number of industrial plants and have the opportunity to inspect the port facilities at Hamburg, Bremen and Wilhelmshaven.

West Germany's Minister of Defence recently stated that the economy of the German Federal Republic would be absorbed without difficulty the additional burdens of armament production. Much of the necessary military equipment would be ordered abroad, while German industry would manufacture mainly the clothing, housing equipment, vehicles, ships, light weapons and smaller aeroplanes of the German defence force.

DOCTOR IN THE HOUSE—NEW STYLE

Medical staff at St. Thomas's Hospital, London, are carrying in their pockets receivers no bigger than fountain pens. If a doctor is wanted on the telephone his receiver makes a gentle "peep, peep."

This is the new communications system now being used at this famous teaching hospital. An inaudible loop of wire encloses the hospital. A transmitter is attached to the loop and powered from the mains.

No wires are attached to the receivers and there are no physical links at all between them and the rest of the apparatus. The receivers are, in fact, operated by magnetic induction from audio frequency currents passing along the wire.

In the simplest form of the system up to 36 receivers can be used, each responding to only one of 56 frequencies, and if more receivers are needed several persons can share a frequency.

“PORTABLE” REACTORS FOR EXPORT

By a Special Correspondent

LONDON, November 5: The Hawker Siddeley Group is now at work on advanced types of nuclear systems.

Work has begun on a study of the liquid metal fuel type of reactor which the Atomic Energy Authority has declared to be one of Britain's most advanced projects and, it is hoped, will make nuclear power more efficient of the uranium.

This was disclosed to-day by Sir Frank Spriggs, managing director of the Hawker Siddeley Group, who has just returned from a survey of the Group's interests in Canada.

Sir Frank said that the work is being undertaken by the Hawker Siddeley Nuclear Power Company, formed at the beginning of the year, at its establishment at Langley (Bucks).

The first stage of a large experimental programme, the formation of a well-equipped metallurgical laboratory, is nearing completion and a first-class design team is in being. One of the company's major activities, for the immediate future, is to develop the design and construction of advanced reactors for electricity generation.

Sir Frank said: "We are interested in this field because it seems to us to open up vast export possibilities for the design and construction of easily transportable, small reactors to countries which will not be able to build their own for a long time to come. The lead which we are gaining in the development of nuclear power means that Britain is right in the forefront of the new industrial revolution, as she was in the first one, and will once again play a major role in raising living standards all over the world."

Mr. E. P. Hawthorne, 36-year-old chief executive of the new company, said: "Metallurgy is the starting point for any development towards higher temperatures in nuclear reactors and we are actively engaged in an ever-increasing metallurgical programme.

"Although our membership of the Hawker Siddeley Group naturally implies an interest in the application of nuclear power to aircraft, this is certainly not our only objective. We foresee the application of the line of research we are now undertaking in the generation of electricity, including plans for remote areas such as may be required in the mining industry, for marine propulsion and for the production of process heat."

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 lad in the Royal Australian Navy. The League offers promotion opportunities to members upon a career of service or to provide a healthy and 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 membership so that the Navy League in Australia may be widely known and exercise an important influence in the life of the Australian Nation?

For Particulars—

NAVY LEAGUE

Secretary: 112 Flinders Street, Melbourne, C.1., Victoria.

Secretary: 83 Pitt Street, Sydney, N.S.W.

Hon. Secretary: 12 Pirie Street, Adelaide, South Australia.

Hon. Secretary: Box 1441 T, G.P.O., Brisbane, Queensland.

Hon. Secretary: 62 Blencombe Street, West Leederville, W.A.

Hon. Secretary: 726 Sandy Bay Rd., Lower Sandy Bay, Hobart.

Hon. Secretary: 49 Froggatt Street, Turner, Canberra, A.C.T.
PROGRESS IN R.N. AIR ARM

By "L'Algerian"—in London

DESPITE THE tiny crescendo of disapproval from Lord Beaverbrook's Fleet Air Arm has made satisfactory progress in the last 12 months. The full extent of the Defence cuts has yet to make itself felt and will probably affect production orders of future aircraft rather than existing squadrons. More cheering news on the financial side has, of course, been the pay increase and in particular the history of every sword and dirigible officers at the Battle of Waterloo in 1815, were in fact regulation weapons not introduced until the middle of the 19th century. The erroneous tendency to search, in which he had has the advice and assistance of many authorities, are worthily commemorated in The Naval Officer's Sword.

Let it be said at once that this well-produced book of 240 pages is something quite apart from a normal museum catalogue interesting only to the expert. In describing the swords at Greenwich, some of them dating back to the 18th century, the author takes us behind the scenes and explains how their history can often be traced and their original ownership established by a process of elimination.

Much is to be learned from the names of the original vendors or manufacturers often found on the blades or scabbards; still more from the standard patterns of swords for Naval Officers first introduced by the Admiralty in 1805, and altered in 1825 and later.

Family tradition is frequently unreliable, and a sword that has been trespassed for generations as a relic of some illustrious ancestor is sometimes proved to have been manufactured after his death. Indeed, on expert examination, the "swords of such proportionate length" as the "Young Gentleman" might consider proper. These in turn were abolished when dirigibles were made uniform for midshipmen in 1856. They remained until they vanished for ever only the other day.

Among modern dirks in the collection is that of Admiral of the Fleet Viscount Cunningham of Hyndhope, as a midshipman in 1898-1901.

The book contains a full list of sword-smiths and sword-cutters, not to mention naval tailors, past and present. Of particular interest are the reproduction of an invoice for £21 12s. sent to Lord Nelson by Messrs. Baret, Corney and Con- nedy, Saccomani and Embroiderers, of The Wavy, Craven Street, London. It is for four sets of the embroidered shirts of the four Orders of the Bath, the Crescent, St. Ferdinand and St. Joseph supplied to the Admiral. Included is a reproduction of an invoice for £21 12s. sent to Lord Nelson by Messrs. Baret, Corney and Conney, Saccomani and Embroiderers, of The Wavy, Craven Street, London. It is for four sets of the embroidered shirts of the four Orders of the Bath, the Crescent, St. Ferdinand and St. Joseph supplied to the Admiral.

Trafalgar came into the possession of the National Maritime Museum, among them weapons once genuinely belonging to Nelson. Duncan, Hood, Hardy and many others. Captain Bosanquet sketches the history of swords from the time they were first used at sea — the cutting and thrusting swords; the fighting, dress and presentation swords; and the now-defunct dirigible once worn by midshipmen.

These embroidered replicas, which cost between £1 and £1 5s. apiece, are now to be seen on Lord Nelson's coat preserved at the National Maritime Museum.

Incidentally, the interesting story of how the uniform coat and waistcoat worn by Nelson when he was mortally wounded at Trafalgar came into the possession of the National Maritime Museum, which is now at the National Maritime Museum, is related by Captain Bosanquet on page 82.

This erudite and absorbing volume, though nominally dealing with swords, throws many interesting sidelights on the history of the Royal Navy for a century and a half. It is clear and precise; never dull. Swords may now be outdated except for ceremonial purposes, but Captain Bosanquet is warmly to be congratulated on a book of lasting value and interest.
Apropos of aircraft design, an interesting occasion occurred in H.M.S. Eagle at the end of last year when some 45 visitors from the Ministry of Supply and the aircraft industry were invited on board to watch a day's operations. This consisted of strikes on targets by Sea Hawks and Wyverns, and depth charge attacks by Gannets. Eighteen sorties were launched in about 2½ hours. The visitors were embarked and disembarked by Naval helicopters and it is hoped that their day's experience will perhaps add something to future Naval aircraft.

Two S.55 (Whirlwind) helicopter squadrons remain in their previous roles: one in Malaya operating against Communist terrorists, and one at present at Eglinton working out anti-submarine tactics. Although information about the latter squadron is scarce it is not difficult to notice the emphatic swing towards helicopters in the A/S role. The day of a conventional fixed wing A/S aircraft such as the Gannet may well be limited to a few more years.

An interesting but little published Naval helicopter operation in the last year has been the Antarctic patrol of H.M.S. Protector equipped with two Whirlwinds. Primarily as a guard ship for the Falkland Islands she has steamed extensively about the South Pacific and South Atlantic oceans. This included a rendezvous with the M.V. Theron which had just broken out of the pack ice.

The Navy now has five fully operational carriers which are kept in commission on the Carrier Cycle: approximately eight months with squadrons embarked and five months alongside. The latest and most important addition to this fleet, H.M.S. Ark Royal, completed her first commission in the late spring. She became the first operational carrier in the world with steam catapults. This revolutionary device enabled her to launch her aircraft whilst moored to a buoy in harbour, a performance with considerable military advantages.

H.M.S. Warrior, a light fleet carrier of slightly older vintage, has now been fitted with an angled deck and will be added to the operational fleet for various tasks, possibly culminating in the hydrogen bomb trials.

Lastly, the R.N.V.R. squadrons exist, equipped mainly with Sea Hawks, Attackers, Gannets and Avengers. Deck landing of the jets has successfully been carried out by the fighter squadrons during their annual training. But the future size is rather uncertain. Defence cuts may well reduce their commitment.

All of which leads to the major problem at the moment: what exactly is the role envisaged for the Fleet Air Arm during, say, the next 15 years? By the time this article appears Government policy may have been stated. Never before has the role of the Navy been so debatable as it is to-day. One can only hope that the politicians will not be as myopic as to cheese-pie with the Fleet Air Arm. Air power is the dominant factor in world strategy; it is not less effective because it operates from sea-borne bases — in fact, could be more. In an atomic age it is particularly worth remembering the basic fact that sea constitutes more than two-thirds of the earth's surface.

—From the London "Navy."

RENOVATIONS TO H.M.S. "VICTORY"

The trustees of the "Save the Victory Fund" (the Society for Nautical Research) have given £10,000 towards the purchase of seafarers for use in the renovation of the main timbers of H.M.S. Victory, at present being carried out at H.M. Dockyard, Portsmouth.

The object of the fund was to restore the ship to her Trafalgar condition, any surplus being devoted towards the building of a Victory Museum with a Panorama Annex alongside.

All these projects were completed before the war.

The fund has been kept in existence, being augmented from time to time by further donations, by the proceeds of the entrance money to the Museum and the Panorama Annex, by the proceeds from collection boxes outside the ship, and by the sale of souvenirs on board.

The general maintenance of the ship, which serves as flagship for the Commander-in-Chief, Portsmouth, is undertaken by the Admiralty, the "Save the Victory Fund" being used for the upkeep and improvement of the Victory Museum, for the renovation of special features in the ship's equipment, and for the provision of special furniture and other things having a historical or sentimental interest connected with the ship or with the Trafalgar period.

NEW WATER PLANT

A Glasgow company has received its second large contract this year for sea-water evaporating and distilling plant. The order (valued at £1 million sterling) is for a plant that will supply 4,000 tons of fresh drinking water daily to the Dutch West Indies island of Curacao, off the coast of Venezuela.

THE NAVY

Printed by BUILDING PUBLISHING CO. PTY. LTD., 10 Latrobe St., Sydney.
Today drop-tanks are a major expendable in the operation of military aircraft.

According to reliable reports, they constituted the largest single item of operating expenditure of the U.S.A.F. in Korea, where thousands were dropped every week. Moreover, as most current drop-tanks are of light alloy, semi-monocoque construction, they could, in time of war, compete directly with aircraft for labour, plant and strategic materials.

Bristol plastic drop-tanks were designed to get over these difficulties. They are much easier to produce than their alloy equivalents and utilise plant and skills that would be particularly scarce in wartime. They are aero-dynamically superior to alloy tanks and can be dismantled for easier stacking. They are unaffected by extremes of temperature and humidity.

**BRISTOL**

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The standard range of tanks so far in production have the above capacities.
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