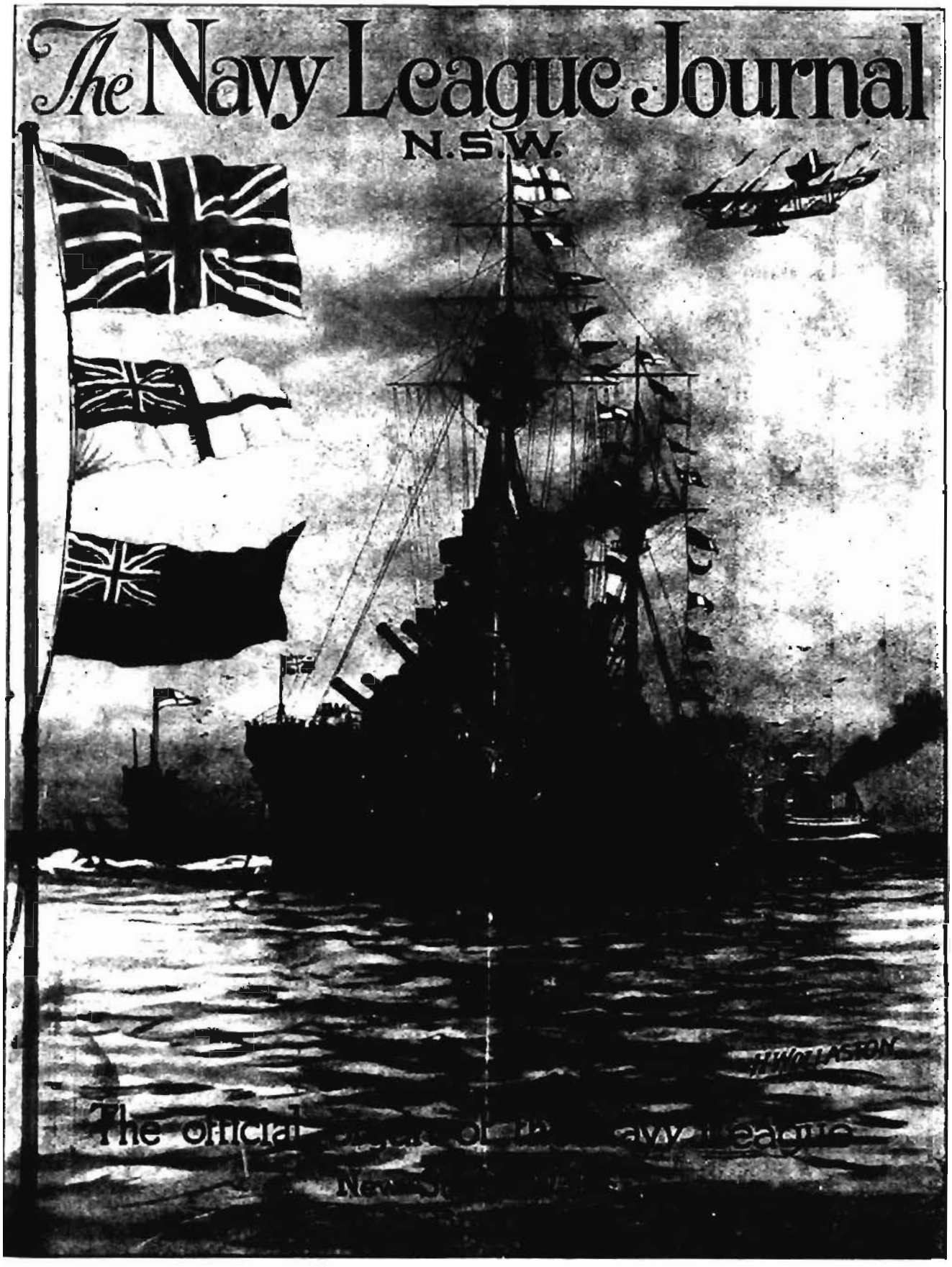
VOL 2 NO 2.

The Navy League Journal

N.S.W.



The official [illegible] of the Navy League
New S[illegible]

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ILLUSTRATIONS.

The Navy League Journal

NEW SOUTH WALES BRANCH.

VOL. II. SYDNEY, JUNE, 1921. No. 2.

THE FIGHTING SHIPS OF THE BRITISH NAVY.

WITH A FEW REMARKS ON SOME OF THE FACTORS CONSIDERED IN THEIR DESIGN.

LECTURE BY
J. J. KING-SALTER, Esq., TO MEMBERS OF THE NAVY LEAGUE.

[In response to requests from members of our branch of the Navy League we have much pleasure in publishing Mr. King-Salter's lecture. It should be borne in mind, that since the lecture was delivered, Australia has been the recipient of a gift of six modern destroyers and six J Class submarines, together with their parent ship "Platypus," from the British Government. Another point worth mentioning is that the appearance of H.M.S. "Hood" has limited the usefulness of several classes of capital ships enumerated by Mr. King-Salter. This, however, does not lessen the value of the bulk of the information contained in the lecture.]

The all-important part the British Navy has taken in the world war is a feature deserving of greater publicity. I propose, therefore, to offer a few remarks on the leading types of the fighting element of the huge Navy of to-day. To do so thoroughly would require far more time than I have at my disposal to-night, and I must ask for the leniency of my audience in these brief remarks, and for the hurried way they have been written; I only had 48 hours' notice. There was no time to prepare any pictures, without which it is most difficult to prevent this lecture being somewhat dry and deficient in clarity; and also, it will be necessary to use technical expressions and quote figures, without which it will be imposaible to bring out the necessary features of the subject, but so far as possible, these will be avoided.

During the evolution of the Navy of to-day, many types of ships have been built, but I think I may say that the present-day Navy really dates from the time the "Dreadnought" was built, in 1906. This vessel was a radical departure from all previous types, in that it was the first all big gun, and, moreover, the first battleship to be fitted with turbine engines; both of these departures have had a world-wide effect—far greater than was ever realised or anticipated by the designers of that vessel.

All the battle line ships now are of the big gun type, and the experience gained during the war has shown that the big gun is a vital element.

The use of turbine engines has completely revolutionised the steaming power of the Navy. In the days of reciprocating engines it

was considered a great feat to keep a ship going at full speed for a few hours; now a turbine-engined vessel can steam, I may say, almost indefinitely at full-speed, with absolute security and no anxiety. Before, it was the engines, now the duration of full-speed is regulated by the endurance of the boilers and the amount of fuel that can be carried, and with oil fuel instead of coal, that endurance has been considerably extended.

I can imagine it being said: "There is nothing wonderful in that, as mail vessels steam at full speed days and weeks on end." That is so, but in a warship on the same weight the engines and boilers have to develop far greater

1. The Battleship.
2. The Battle Cruiser.
3. The Light Cruiser.
4. The Scout Cruiser.
5. The Torpedo Boat Destroyers and their leaders.
6. The Submarine.

Such a fleet is also attended by a number of other important auxiliary vessels, such as the Hospital Ship, the general repair ship, the machinery and electrical repair ship, submarine mother ship, destroyer mother ship; also, food ship, refrigerator ship, ammunition ships, colliers, and high-speed tugs or despatch vessels, fitted with pumping plant.

H.M.A.S. "SYDNEY," CONQUEROR OF THE "EMDEN."

powers, as in these vessels weight is such an important element the designer cannot afford to have the weight, or what is the same thing, surplus strength in his machinery, as a merchant ship.

The introduction of oil fuel has also effected a great increase in efficiency, durability, increase in period of steaming, and decrease in stoker complements.

The Navy of to-day—the main offensive element—has become very much simplified, and the number of different types has been so reduced that it now consists only of the following:—

In addition to the above, a few other fighting types have been developed during the war for special duties, such as the Monitors, and the Mystery or Bush Ships, but the six classes given above form the complete battle fleet. Compare this list with the innumerable vessels which the Navy consisted of in quite recent earlier days, many, if not most of which are, however, still doing active and useful service, and it is seen how advantageous a reduction in types becomes, enabling homogeneous fleets to be formed, all of high speed.

The above detailed battle fleet is divided into two main elements (1) the battle ships, with

the light cruisers, a quota of destroyers, and the submarines, and (2) the battle cruisers, with the scout cruisers and destroyers.

The reason for this division is, no doubt, partly due to the different speeds available; the battleships are mostly of 21 knots, whereas the battle cruisers are capable of 28 to 30 knots and over.

Speed is an all-important element, and as a result of the war it would appear that it has been given a pre-eminent position, as one hears of vessels of 45 knots—a speed undreamt of before the war, and what is more, impossible until the advent of the turbine with gearing. The more recent battleships are having their speeds increased from 21 to 25 knots, and some special vessels are stated to have steamed from England to America and back in six days, which, if figured out, means a speed of 45 knots per hour. These results could not have been obtained a few years ago, and are due entirely to geared turbines, water tube boilers, and oil for fuel.

Before dealing with the six classes of vessels enumerated, I will say a few words for those who are unfamiliar with these matters as to what a geared turbine, water tube boilers, etc., mean.

A turbine engine is one that consists of a very large number of vanes placed all round a cylinder; this cylinder with its vanes is enclosed in another cylinder or casing also fitted with vanes; against these vanes the steam flows, and blows the cylinder round just like a windmill; thus the propeller or screw shaft, which forms a continuation of the cylinder with its vanes, is directly rotated. Now, to get the best results out of such a machine, it has to revolve at a very high speed, which, unfortunately, is unsuitable for the screws, and to keep the speed of rotation down to the limit suitable for the screws the turbines have had to be made very large, with consequent increase in weight and loss of efficiency.

The next improvement effected was the introduction of a pair of cog-wheels to reduce the speed of the turbine to suit the screw, very similarly as is done in a motor car. After the mechanical difficulties had been got over, this improvement has been found to be most efficient and satisfactory, and has effected a considerable reduction in weight for a given horse-power. We thus have what is called the geared turbine. The reduction is effected sometimes with a single pair of gears and sometimes by double reduction. The turbine is thus allowed to run at a high and efficient speed—1,500 to 3,000 and 4,000 revolutions per minute, and even higher, and the screw or propeller can run at its most efficient speed, which varies from under 100 to about 300 to 400 per minute. Without this great improvement such high powers—as much as 170,000 h.p.—would never have been obtained. This reduction gearing is really a mechanical triumph of the first order.

To give some idea of what this amount of power means, it may be stated that 30,000 h.p. was formerly a high figure for a fast cruiser—23 to 24 knots—with the old type reciprocating engine, and this power could only be maintained for about four hours; whereas with the turbine engine, as already stated, the full power can be maintained for days on end.

In the days before turbines a warship hardly ever again reached the speed she attained on her original trials, but with turbines, not only can she do so readily, but more often than not the original trial speeds are exceeded, without the attendant anxiety, and for lengthened periods, as witness the dramatic performance of the two battle cruisers, which rushed out from England to the Falkland Islands to the utter discomfiture of the German Pacific Squadron.

What is a water tube boiler? There are several types. One much used is a boiler built up with several thousand small tubes, about one inch in size, with the water inside the tubes. The tube gives a very large surface to the furnace gases, and it enables very large quantities of water to be rapidly converted into steam. The weight of such a boiler is very much smaller, compared with the cylindrical or Scotch boiler, as it is often called.

The introduction of oil for fuel instead of coal has also effected a considerable saving in weight, and enables the boilers to be fired with greater intensity, and reduces the ash and choking of the tubes to a minimum, besides other advantages.

We will now turn to the six classes of vessels enumerated, and give a brief description of their different types.

BATTLESHIPS: I have already referred to the original "Dreadnought," the founder of the present-day battleship, as being an all big gun ship. In designing a battleship endeavour is made to combine as heavy an armament as possible, *i.e.*, as many and as big guns, as much

protection or armour, and as high a speed as possible, and also as steady a gun platform as possible. Each of these qualifications is more or less antagonistic to one another. Every day the tendency is for battleships to get bigger and bigger, in order to include these important elements in as great a degree as possible; but this question of size is, and always has been, a great bone of contention, so that, whilst their size has been growing, the amount of weight at the disposal of the designer is limited, and it becomes a matter of earnest consideration as to the best disposal of the weight allowed, to provide for (1) guns, (2) protection, and (3) speed, which includes fuel. In the battleship prominence is given to guns and protection, so that in these vessels you find they have mostly 10 large calibre guns—13½ in., 15 in., and even, it is said 17 in., with a small secondary armament of 6 in. and other guns for repelling torpedo boat destroyers, etc.—large protection—11 in. to 12 in. to 13¾ in. thick of side armour, and protection to the guns, and lighter armour for protecting the secondary armament, and the speed is 21 knots; it is said recent ships have 24 knots.

The weight of a (1914) super-Dreadnought totals up to 25,000 tons, with a speed of 21 knots and 29,000 horse-power.

To those not familiar with the expression "displacement," it may be stated, that in the Royal Navy the tonnage of a warship is not expressed by the rules used in a merchant ship, where gross, register and nett tonnage, are determined by measurement of the internal spaces of the ship according to certain rules. In a warship these terms have no meaning, and are inconvenient; instead, the total weight of the ship is taken as a measure of her size, and the "displacement" means the weight of water displaced by the ship as she floats in the water, and is equal to the total weight of the ship in tons of 2,240 lbs.

The "Canada," which was being built in England for a foreign Government, and was taken over, has 10 14 in. guns, with a total weight, or displacement as it is more generally called, of 28,000 tons. This vessel has 37,000 h.p., and a speed of 21 knots. Another vessel, the "Agincourt," has 14 No. 12 in. guns, is of 27,500 tons displacement, 45,000 h.p., and has a speed of 22 knots.

The horse-power of the 25,000-ton vessel is 29,000 for a speed of 21 knots.

Again, the "Royal Sovereign" class—1914-15—is as follows:—Displacement, 25,250 tons, 31,000 h.p., speed 21 knots, guns 8-15 in., 16-6 in., 4-3 in., anti-aircraft guns, and five submerged torpedo tubes for 21 in. torpedoes. The side armour is 13½ in. thick.

Another class of battleship is the "Queen Elizabeth" class:—Displacement 27,500 tons, h.p. 58,000, speed 25 knots, guns 8 No. 15 in., 16 No. 6 in., 4 No. 3 in., 5 No. submerged torpedo tubes. Side armour 13½ in.

It will be noticed how much greater the horse-power is in the "Agincourt" and "Queen Elizabeth," for increases in speed of 1 and 4 knots respectively; this will be referred to later.

It will also be noticed how to get the higher speed in the "Queen Elizabeth" and the extra quarter of an inch in armour, an increase in weight of 2,250 tons was necessary.

The Australian Navy so far has no Dreadnought battleship.

We come now to the BATTLE CRUISERS. In these vessels protection and gun-power give way to speed; this is practically the only difference, except that to help to get the speed they are narrower and longer; but they are still fairly heavily armoured, with, as a rule, two large guns less. The earlier battle cruisers were of about 18,000 tons displacement, 42,000 h.p., 25 to 26 knots speed, carrying 8 No. 13½ in. guns, 16 No. 4 in., and 4 No. 3 in. Their speed on service has exceeded their designed speed—reaching 29 knots. The armour is 8 inches on sides, and 10 inches in barbettes.

H.M.A.S. "Australia" is of this class.

Later battle cruisers are considerably larger—26,000 to 28,000 tons, 70,000 to 87,500 h.p., speed 30 knots, which has probably been exceeded in service; armour, sides 9¼ in. and 10 in. on the barbettes; guns, 8 No. 13.5 in., 16 No. 4 in. or 12 No. 6 in., and 4 No. 3 in., but only two torpedo tubes. It will be seen that with their high speed, these vessels are most efficient vessels for modern tactics, where speed is such an important element; but at the same time, at the Battle of Jutland, the lightness of the protection of this class of vessel showed their weak point compared with the "Warspite" of the "Queen Elizabeth" class, which withstood a terrible hammering.

Continued on page 12

THE BOY SCOUT.—SCOUTS and PUBLIC SERVICE.

By F. Danvers Power.

AUSTRALIAN PARENTS ALERT!

Have you ever realised what a Boy Scout is? Then, if not, read the Boy Scouts' page in this Journal each issue.

Among the activities that Scouts are encouraged to take up and for which badges are issued are certain subjects which have to do with services to the public, *e.g.*, ambulance, missioner, fireman, rescuer, signaller, pathfinder, camper, public health, interpreter, etc.

The advantage of a general knowledge of ambulance work or first aid is well known, and although we must admit that everyone is not suited for that class of work (maybe one is too rough or careless and so may do more harm than good), yet knowledge of the harm that might be done is of value, for the tendency in case of an accident is to render assistance, and a man who is both ignorant and clumsy is worse than one who is only clumsy.

Although those who take up ambulance work do so with the object of benefiting others, there are cases in which such knowledge is useful when one meets with an accident himself, for though it may be impossible to personally carry out the work, one can at least direct others who are ignorant on the subject what to do and how to do it.

The three main points in ambulance work is to know what to do: to do that quickly, and to carry out the work neatly. Just as it is not much good knowing how to tie a knot unless you also know the circumstances under which the knot should be used (such as when a boy tries to connect two ropes of different sizes with a reef knot, or if he uses the sheet bend, makes the bend with the smaller instead to the larger rope), so it is not much good knowing how to fix up a broken jaw when a man has broken his collar bone. One hears all sorts of stories about people who have attended ambulance classes and have become fairly proficient in the actual manipulation, but do not use their brains. For instance, two young people who had just finished an ambulance course came across a man who had been knocked down and run over by a waggon. They came to the conclusion that he had a broken leg and carefully placed it in splints; they were so pleased with their work that when a doctor arrived on the scene they asked him what he thought of their work: he replied that they had put the leg in splints very nicely, but unfortunately they had forgotten to stop the arterial bleeding first, consequently the man was dead, so his leg was not much use to him broken or mended. Many a life might have been saved if only the knowledge of ambulance were more general. A boy once climbed on to one of those spiked iron fences in order to obtain a better view of a passing procession: he slipped, and one the spikes severed the artery under his arm. He died, surrounded by an admiring crowd, just because no one knew enough to apply pressure to the artery passing between the collar bone and the first rib. A man who worked in a grease plant was walking home one evening, when wishing to light his pipe he essayed to strike a match in the time honored way on the seat of his pants. The match struck alright, but set alight to his greasy clothes: becoming warm and scared, he commenced to run down the street with a crowd after him shouting with amusement, thinking he was some new kind of firework until he collapsed. No one had enough sense to trip him up and smother the flames. But one might go on giving examples *ad libitum*. No one knows when he may be called on to render first aid, it is therefore necessary not only to learn, but to keep in practice so as to carry out the Scouts motto "Be Prepared." One who takes up ambulance should be resourceful, for people do not select places where the necessary appliances are kept before meeting with an accident. It is also well to obtain all the knowledge possible on the subject; for though as the term implies it is only first aid, there are cases in the back blocks where it may also have to be sole aid, and if through ignorance you make a mess of things it may turn into last aid. The correct handling of an injured person is of great importance, for if carelessly done, a simple fracture may be converted into a compound fracture with serious results. Many Troops keep a proper ambulance stretcher at their club room, but when a real accident occurs in the bush an improvised stretcher generally has to be made.

To be continued in next issue.

Every reader of this Journal is earnestly requested to do his utmost to assist the Junior Sister Services —The Boy Scouts and the Navy League Sea Cadets.

DO IT NOW.

LEST WE FORGET, 1914-1918

	Enlistments	Died that we might live
AUSTRALIA -	413,453	59,330
BRITAIN - -	6,211,427	743,702
CANADA - -	683,170	56,625
NEW ZEALAND -	227,325	16,136
INDIA - - -	1,579,426	61,328
SOUTH AFRICA, NEWFOUNDLAND, WEST INDIES	281,579	8,832
Totals	9,396,380	945,953

FROM "IN MEMORIAM."

Ring, happy bells, ———

* * *

Ring out the false, ring in the true.

Ring out the grief that saps the mind,
For those that here we see no more:
Ring out the feud of rich and poor,
Ring in redress for all mankind.

Ring out a slowly dying cause,
And ancient forms of party strife:
Ring in the nobler modes of life,
With sweeter manners, purer laws.

Ring out the want, the care, the sin,
The faithless coldness of the times:
Ring out, ring out, my mournful rhymes,
But ring the fuller minstrel in.

Ring out false pride in place and blood,
The civic slander and the spite:
Ring in the love of truth and right,
Ring in the common love of good.

Ring out old shapes of foul disease;
Ring out the narrowing lust of gold:
Ring out the thousand wars of old,
Ring in the thousand years of peace.

Ring in the valiant man and free,
The larger heart, the kindlier hand:
Ring out the darkness of the land,
Ring in the Christ that is to be.

Lord Tennyson.

READ THE AIMS AND OBJECTS OF THE NAVY LEAGUE ON PAGE 20.

NAVY LEAGUE SEA CADETS

READY 1920 READY AYE

SNAIL'S BAY DEPÔT, BALMAIN.

ROUTINE.

MONDAY—8 to 9 p.m.
Band Practice.
TUESDAY—7.30 to 9 p.m.
Mechanicians Class.
WEDNESDAY—8 to 9 p.m.
First Aid.
THURSDAY—7.30 to 9.30 p.m.
Squad Drill and Physical Exercises.
FRIDAY—7 to 9.30 p.m.
Recreation.
SATURDAY—2 to 5 p.m.
Seamenship.
SUNDAY MORN—
Church Parade.
SUNDAY—2 to 5.30 p.m.
Away Boats.

PROMOTIONS.

EXTRACT FROM DEPOT RECORDS.

No. 2—GEORGE INNES—Promoted from Seamen Bugler Boy to Leading Seamen Bugler Boy (3rd Class), as from 30th April, 1921.

No. 78—ARCHIE BOYCE—Promoted from Flag Bearer to Leading Hand (3rd Class) as from 16th May, 1921, for devotion to duty.

No. 34—JACK DAVIS—Promoted from Seamen Boy to Leading Hand (3rd Class), as from 16th May, 1921, for devotion to duty.

The undermentioned Seamen Boys were promoted from Seamen Boys to Leading Hands (3rd Class), as from 23rd May, 1921, to complete establishment.

No. 6—HERBERT NICHOLSON.
„ 19—LOVELL EDWARDS.
„ 1—ARTHUR MATTHEWS.
„ 18—SAMUEL HENSEN.

FIRST AID

Instructor: W. H. BLEASE, of St. John's Ambulance Association.

CLASS—No. 7—ARTHUR LOUNDAR.
„ 8—ROBERT MOFFAT.
„ 14—ROBERT CARLISLE.
„ 15—GEO. R. ARBLASTER.
„ 16—HARRY NEILSON.
„ 20—DUDLEY HOGARTY.
„ 21—STANLEY BECK.
„ 22—ROBERT MCWHINNIE.
„ 44—MALCOLM WADE.
„ 49—ARTHUR HOLMES.
„ 58—ERNEST WADE.
„ 66—WM. CARROL.
„ 75—THOS. MCWHINNIE.
„ 86—HENRY LEMME.
„ 103—CECIL BAKER.
„ 111—WILLIAM STRAINS.

NAVY LEAGUE SEA CADETS
CONTINUED.

The Naval Authorities have decided to loan two cutters for instructional purposes.

Each boat will have masts and sails complete and will pull ten oars.

His Excellency the Governor-General of the Commonwealth will be present.

At St. John's Church, Balmain, at Morning Service, on Sunday, 12th June, the Chaplain (Rev. Geo. Manning) will bless the Cadets Flag.

PROMINENT MEMBERS OF THE NAVY LEAGUE

(N.S.W. BRANCH)

COL. THE HON. SIR JAMES BURNS K.C.M.G., M.L.C.

Head of the well-known firm of Burns, Philp & Co., Ltd., Shipowners, Merchants and Agents for world wide shipping interests. Sir James still finds time to take a keen interest in the affairs of New South Wales. Among many other activities he is a Trustee of The Royal Naval House, Sydney and a member of the Executive Committee of the New South Wales Branch of the Navy League.

MR. ALFRED C. MILSON

One of the Trustees of the Royal Naval House since its inception, and for the last 14 years the guiding hand of the Institution in his position as Hon. Secretary and Hon. Treasurer. Mr. Milson is also a member of the Executive Committee of the Navy League and one of the Hon. Secretaries. In yachting circles Mr. Milson is well-known and is generally identified with most of the important aquatic functions.

The Executive Committee of the Navy League will insure the boats against loss or damage.

The Commodore Commanding the Royal Australian Fleet has extended to the Navy League an invitation for the Sea Cadets to be present at the Naval Review, to be held on the 16th inst., in the Domain.

Members of the Navy League are cordially invited to be present.

Members of the Navy League should make it their business to visit the Balmain Depot during training operations. The trip would convince them that much good work is being performed by the Officer-in-Charge and his assistants.

The next class of vessel—the LIGHT CRUISER—is of the same class as the "Sydney," "Melbourne" and "Brisbane," and is only of 5,400 tons—with only light protection, viz., 2 in., and of only comparatively moderate speed (25 knots), armed with 8 to 9 No. 6 in. guns and a few lighter guns, and two submerged torpedo tubes.

The SCOUT CRUISER is a still smaller vessel, of 3,560 to 3,750 tons, but protected with 4 in. side armour; of high speed—30 knots, requiring 31,000 to 35,000 h.p., and a moderate armament of 2 No. 6 in. and 6 No. 4 in. guns, and 4 No. above water torpedo tubes. To this class belong the "Arethusa" and "Calliope" classes.

The TORPEDO BOAT DESTROYERS and their FLOTILLA LEADERS are a small type of vessel, built of very light scantlings and no protection, lightly armed with guns, but well provided with torpedoes and great horse-power to obtain a high speed—anything up to 38 or 40 knots. The reason for their high horse-power compared with their size will be explained later.

The latest type of destroyer is of about 1,000 tons displacement; 36,000 h.p., and the flotilla leaders about 1,500 to 1,800 tons, with 42,000 h.p.

Lastly, the SUBMARINE. All the vessels described hitherto have been above-water vessels. I mention this, as I have not infrequently heard it stated that torpedo boat destroyers went under water; but I think such people have confused the torpedo boat with its weapon—the torpedo—which, like the submarine, is really an under-water vessel, and which is launched into the water from the torpedo tube, and being fitted with powerful little engines and automatic appliances for keeping it submerged to any desired depth, drives its way under water at a speed of from 40 to 50 knots—depending upon the distance of the target and on hitting, which explodes its charge of some 300 lbs. of high explosive, with disastrous effects. The torpedo, once fired or launched, is entirely without any further human control. The submarine is a much larger and habitable vessel, which can travel as a surface vessel or entirely submerged, at the will of the captain on board.

Australia had two submarines, of about 750 tons weight, with a surface speed of 16 knots, and submerged, 9 knots. They were armed with four torpedo tubes. These vessels have, till recently, been fitted with internal combustion engines for steaming on the surface, and electric motors with current supplied from storage batteries for steaming under water, when the engines cannot be used. The engine power was 1,750 for the surface running, and 550 submerged.

It may be of interest to note, that when a submarine is submerged, and although the weight of the boat will be about 25 per cent. more, and the surface against which the water has to rub some 15 per cent. greater, of which extra surface is included the conning-tower and other irregular deck structures, which add a good deal to the resistance—yet the power required to drive the vessel submerged at any given speed, is considerably less than when running on the surface, for that same speed. This is due to the fact, that on the surface waves are formed, which absorb a good deal of power.

More recent submarines are not only much larger, but have also been fitted with guns, and some are driven by steam engines, and their radius of action considerably increased.

These are, briefly, the main points between the respective classes of vessels comprising the present-day battle fleet.

I propose now to briefly run over some of the factors that enter into the design of a modern warship.

To be concluded in our next issue.

Colonel George Harvey, the new American Ambassador to Britain, at a Pilgrim's Club gathering in London said that the task was to strengthen the existing cordial Anglo-American relations.

We earnestly hope that his "task" will be successfully accomplished, for the future peace of the world rests in the bosom of the Anglo-American people.

THE NAVY LEAGUE—NEW SOUTH WALES BRANCH

STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31ST DECEMBER, 1920.

	£ s. d.	£ s. d.		£ s. d.	£ s. d.
To Stationery, Printing, etc.		40 16 0	By Balance forward from 31st December, 1919—		
,, Furnishing		27 8 0	Bank of New South Wales	638 7 1	
,, Salaries—			Cash	48 10 6	
Typist	138 0 0		London Office	31 10 0	
Organiser	416 0 0				718 7 7
		554 0 0	,, Subscriptions		356 5 6
,, Prize Essay Competition		48 0 0	,, Sale of Badges		0 17 6
,, Purchase of Badges		75 0 0			
,, Meetings, Lectures etc.		18 9 6	,, LORD JELLICOE BANQUET—		
,, PETTY CASH DISBURSEMENTS—			Further subscription received		1 11 6
Postages	28 4 4				
Telegrams and Sundries	18 3 9				
		46 8 1			
,, LONDON OFFICE—					
Expenditure on our account		16 14 10			
,, NAVY LEAGUE JOURNAL—					
Expenditure Production and Delivery	236 0 4				
Less Receipts for Advertisements, etc.	120 3 4				
		115 17 0			
,, Navy League Sea Cadets		1 15 0			
,, Balance on hand 31st December, 1920—					
Bank of New South Wales	45 4 11				
Cash	66 13 7				
London Office	14 15 2				
		126 13 8			
		£1,071 2 1			£1,071 2 1

Audited and found correct.

H. RUSSELL CRANE, F.C.P.A.
H. J. GIBBONS, F.C.P.A. } HON. AUDITORS.

ALFRED G. MILSON, HON. SECRETARY.

FACTS ABOUT THE COMMONWEALTH OF AUSTRALIA.

WHAT STATISTICS DISCLOSE.

POPULATION: 5,323,000. AREA: 2,974,581 SQUARE MILES

INTERNATIONAL TRADE.

EXPORTS, VALUE: £148,573,810. IMPORTS, VALUE: £98,591,575.
TOTAL, £247,165,385.

TOTAL DEPOSITS SAVINGS BANKS

DECEMBER, 1920.
£139,477,005.

RAILWAYS.

25,660 MILES (OPEN) CAPITAL COST: £224,922,000.
GROSS REVENUE: £25,307,000.

VALUE OF PRODUCTIONS

(YEAR 1918.)

PASTORAL	£98,297,000.	DAIRYING	£33,500,000.
MANUFACTURING	75,261,000.	MINING	26,156,000
AGRICULTURAL	58,080,000.	FISHERIES AND FORESTRY	7,137,000.

THE MEANING OF AN EFFICIENT NAVY AND MERCANTILE MARINE.

COMMODORE DUMARESQ AT ROYAL NAVAL HOUSE, EMPIRE NIGHT, 1921.

At the celebration of Empire Night by the New South Wales Branch of the Navy League, Commodore J. S. Dumaresq, C.B., C.V.O., A.D.C., R.N., occupied the chair.

In the audience were 100 Navy League Sea Cadets in uniform and nearly 100 recruits. The whole were under the charge of Mr. Hammer, who brought them from Balmain for the occasion. They were drawn up in front of the Royal Naval House, where the Commodore, accompanied by Commodore Edwards, R.N., inspected them before entering the building.

One of the Hon Secretaries of the New South Wales Branch of the League (Mr. A. G. Milson), conducted the Chairman, Commodore Edwards and Mr. Walter Marks, M.P., to the platform.

In his address, Commodore Dumaresq said he wanted his hearers to realise that the Empire was judged by whether it was a civilising influence in the world or not. That was the test they were prepared to put the Empire to, and they must all see that no apathy on their part or no spirit of aggrandisement on the part of any one of them brought discredit on the Empire. During the past few years they had been challenged by another Empire to mortal combat. The Empire did not realise that there were any higher obligations in Empire. The only things it understood were force and the power of everything that was selfish. The British Empire bent to that blast and came through. He did not suppose there was anyone present who had not lost some friend or relative in that struggle, and it was for those boys present to carry on the Empire in the spirit in which those who laid down their lives would have to be carried on.

COASTAL STEAMER OF 2,000 TONS BLOWN ASHORE AT BYRON BAY, N.S.W.

There were a number among the boys to whom the call of the sea would be very strong and they would not all be able to resist it. If they took to a sea life their success would be proportionate to their personal endeavour to get on and their determination to succeed.

"I am not going to promise you that you will be millionaires by going to sea," added Commodore

Continued on page 17.

THE NAVY LEAGUE.

ANNUAL FELLOWS.

Sir Denison Miller, K.C.M.G.	A. Rattray
His Honor Judge Murray	D. W. Roxburgh
H. H. Massie	Vere Lord
Mrs. Hamilton Marshall	Sir Arthur Rickard, K.B.E.
Livingstone Mann	P. A. Rabbett
K. R. Marks	Mrs. P. A. Rabbett
Mrs. Alex. Mackell	H. G. Robinson
Alex. Mackell	Surg. Lt. Commander W. K. Roberts, R.A.N.
David Millie	
Maurice K. Moseley	A. Conseil Stephen
Hon. J. Lane Mullins, M.L.C.	Miss Khe Smith
J. K. G. Miller	K. A. Smith
K. A. Milford	Mr. Justice Street
A. W. Milford	T. R. Simpson
F. K. Middleton	H. M. P. Storey
D. Maughan	Duncan Sinclair
Mrs. Mayne	Arthur Schute
Miss F. L. Maddox	R. J. Sellar
Walter Marks, M.P.	W. P. Sellar
Mrs. Ada McMaster	W. J. Sinclair
Ronald Mackay	Russell Sheridan, O.B.E.
Prof. W. M. MacCallum	William Spier
F. D. McMaster	T. K. Shaw
Miss Muriel McMaster	C. McA. C. Shannon
T. F. D. Mackenzie	A. M. Shannon
Hunter McPherson	F. H. Salisbury
Mrs. K. McCoy	Mrs. J. M. Sandy
R. R. Macrae	Capt. W. H. Sheppard
R. J. H. Macarthur	W. H. H. Snellgrove
Sir William McMillan	F. W. Shaddick
H. McDonald	A. K. Swain
Miss Mabel Neich	C. M. Summers
Albert Naish	J. Stinson
Vesney Nathan	T. A. Skinner
Miss M. Ambrose Neale	Mrs. Thornett
R. F. Newland	Fredk. A. Thorpe
M. F. Newland	Dr. K. T. Thring
Mrs. C. F. Norris	E. Gord Tomlin
C. E. Norman	Alec. Thompson
Col. J. W. Macarthur Onslow, M.L.A.	Mrs. N. M. Thomson
	Hon H. Turner
Miss Macarthur Onslow	Dr. Herbert Throsby
C. K. Partridge	Wm. Tarleton
Rev. Allan F. Pain	A. Tubb
Jack Payne	H. Minton Taylor
Mrs. Payne	J. A. Thompson
Dr. F. Antill Pockley	Thos. Vincent
William Pearse	Hon. J. T. Walker
Walter Potts	A. Gordon Weedon
Mrs. A. W. Pearce	Capt. F. G. Waley, C.B.E.
Mrs. K. M. Playfair	Mrs. C. A. Le M. Walker
Mrs. K. Pearce	C. A. Le M. Walker, C.B.E.
A. N. Pye	E. Reginald White
Mrs. K. G. Phillips	Henry Wauesy
A. T. Pritchard	Cecil K. Weigall
Mrs. M. Park	G. H. Wyld
Mrs. M. K. Pitt	Edmund A. White
Miss Dorit Pitt	A. W. A. Weaver
P. Poate	Mrs. R. Worrall
O. H. Partridge	V. A. H. Willis
Arthur Paterson	David S. Walker
W. Pope	Mrs. Victor White
Mrs. L. Quigley	George Wright
Augustus F. Robinson	A. Y. Worthington
J. S. Hyrie	W. G. Westworth
Robert Reid	Mrs. W. G. Westworth
Matthew Robinson	Capt. T. Langley Webb
Dr. Clarence Read	Dr. K. St. Vincent Welch
Mrs. Norman Robertson	Mrs. Phillip Wood
W. H. Rothe	Mrs. J. Q. Wood
Mrs. Louis Rich	A. C. Webb
Mrs. F. R. Robertson	H. A. Wilshire
Mrs. K. M. Read	F. N. Yarwood
Miss C. Robertson	Miss Angie Younger
Mrs. Richards	Mrs. K. Yarwood
H. A. Russell	R. J. Yeomans

To be continued in next issue.

According to the latest figures issued to 1st May, 1921, the personnel of the Royal Australian Navy is made up as follows:—

Officers, R.N.—29 per cent.
R.A.N.—71 per cent.
Men, R.N.—27 per cent.
R.A.N.—73 per cent.

Dumaresq, "but you will lead good men's lives, and if you find a seaman's grave that is a good man's grave, too. (Hear, hear.) My advice to you is: Select your life and stick to it, but don't swerve to right or left. Remember, the sea is your heritage, handed down to you from all your ancestors."

Commodore Dumaresq reminded them that in reading history the past must be judged in the light of the past, and not by the conditions of the present. The Empire did not stand for any naval or military domination or despotic force or for the curtailment of liberty.

"In the present stage of the development of the human race," said Commodore Dumaresq, "this Empire cannot hold together or exist without maintaining sufficient sea power for its requirements."

There were, added Commodore Dumaresq, three chief reasons why neither Australia nor the Empire could exist without sea power. The first was that it enabled statesmen and diplomatists to guarantee a livelihood to the masses of the agrarian and industrial population, which were really the greater parts of the people of Australia. The second reason was that it was necessary to guarantee the ocean's highways. The sea was just as much a lot of roads and pathways as were the roads and pathways on shore.

"If you do not keep those shore roads in good repair," said Commodore Dumaresq, "and keep brigands, highwaymen, and Guyra ghosts from disturbing people who use those highways, you will have no guarantee that you can get your commerce about."

Continuing, Commodore Dumaresq said that the third reason for maintaining sea power was that it guaranteed their homes from invasion. The cement which held together the constituent stories of the Empire was the Empire's sea power, comprising both an efficient navy and mercantile marine. It all ultimately rested on the sea spirit of the people. The people who had no sea spirit could not hope to have a good navy or a good mercantile marine.

"You boys," concluded Commodore Dumaresq, "have got in you the unquenchable sea spirit of the British race. You are doing a great thing for Australia by joining up with the Navy League Sea Cadets."

Commodore Edwards congratulated the boys on the fact that they had practically trebled their strength since he saw them last. He hoped the next time they met, they would have to have a bigger building.

"I hope," said Commodore Edwards, amidst the vociferous cheering of the Cadets, "to get you afloat in some sea service cutters with 12 oars."

When the applause had died down, Commodore Edwards impressed upon the boys that they would have to pull together in the boats if they wanted to win a race. They would also have to learn to pull together for the remainder of their lives if they wanted to get on. He repeated the advice given him by his father when he joined the navy. This was that his life was not his own, but his country's, and it was for him to keep himself fit, and he a credit to his country. He thought, from what he saw that night, that they had the material to keep the navy and the mercantile marine going.

Mr. Marks, M.P., addressed the boys at length, regarding their duty to their flag. He told many interesting anecdotes relating to his patrol work in the North Sea during the war, and mentioned the manner in which some of his comrades had laid down their lives for the flag. He also said that he had just travelled 600 miles in the country, and addressed 250,000 people on the subject of the Union Jack. Those people in the country were loyal. He did not think there were many people in this country who despised or hated the flag, but there were a fair few, and he wanted to get at that fair few, because they had no right to live in this lovely land if they did not respect its flag.

Mr. Marks said he had heard that someone tried to pull down the Navy League Cadets' flag in Balmain.

"If anyone comes down to your yard again," he added, "and tries to pull down your Union Jack, deal with them in the same way as you did with the others, and go one better." (Applause.)

To add to the success and pleasantness of the evening the State Military Band dispensed delightful and soul-stirring music, Mr. Tougher and his colleagues coming in for unstinted applause which was fully deserved.

(For much of the above our thanks are due to S.M.H. 25-5-1921.)

VITAL TO AUSTRALIA.

THE MEANS TO PRODUCE EQUIPMENT.

"Australia wants to be independent and self-contained with regard to national defence and she is starting at the wrong end." "In my opinion," declared General Sir John Monash, recently, "the requisites for defence are adequate equipment, or the means of producing it, a trained staff which knows how to use it, and the rank and file. I put the rank and file last because we know from experience that the manhood of Australia is all right and that it will be available in any national emergency. If we want to put our house in order we should equip ourselves to produce equipment."

NAVY LEAGUE BOYS DISTINGUISH THEMSELVES.

A gang of boys made an endeavour to haul down the Union Jack flying at the headquarters of the local section of the Navy League, Balmain, with the expressed intention of burning the flag. There followed a free fight, with fists and stones, in which several of the Navy League boys and their attackers received minor injuries

The headquarters are situated at the corner of Grove street and Wharf-road, with a frontage to Snail's Bay, where the boys learn many of their duties. Yesterday afternoon, writes a correspondent in the Sydney "Evening News" of 16th May, following their usual custom, they mustered in the grounds under the charge of Mr. Hammer. That there was something in the wind soon became apparent, for the vicinity of the headquarters became the rendezvous for several of the gangs of marauding youngsters who frequently disturb the peace of mind of Balmain residents. There were about forty of them altogether.

It was no promiscuous affair. With the deliberations of a pre-arranged plan portion of the attackers mounted the stone wall surrounding the headquarters, the remainder gathering at the gate. From there they announced their intention, in language that would have made a bullock driver blush, of hauling the flag from the pole in the grounds and burning it.

Mr. Hammer remonstrated with the boys, and told them to go away. But they became more aggressive, and finally several of them pushed their way into the grounds, and made towards the flagstaff. There was only one way to get rid of them. The captain gave the word to his lads—about thirty of them—and soon the intruders were on the other side of the wall.

But though on the defensive the embryo disloyalists were not routed. They made a tactical retreat to a rocky eminence on the opposite side of the road, and from the cover of lantana bushes and rocks fired a fusillade of stones at the naval boys. The captain tried to hold his boys in check; but it was more than youthful human nature could stand. With loud shouts they broke away, and scaled the hill in the face of a volley of stones.

The combatants clashed and fell apart again: and then, between them, the leader of each side fought out the issue. They hammered each other with deadly earnestness. Both fell to the ground at last, but only the naval boy arose. The other remained recumbent, ruefully nursing a crimson nose and swollen eye.

By this time the captain had recalled his boys and ordered them to remain in front of their headquarters. Here they were subjected to a further bombardment of stones, and several casualties resulted. One boy received a nasty gash in the head and had to get first aid treatment. Matters were looking so serious that the police were sent for.

In the meantime the doughty champion of the naval youngsters had carried on a lone but glorious battle. Flushed with his first victory, he tackled and defeated three more of the would-be flag burners, and was looking for further battle when the arrival of the captain dispersed the attacking forces.

Just when the affray seemed to have ended, an agitated woman arrived with the information that one of the naval boys was being "dealt with" in an adjacent street by a mob of the other boys. The captain rallied his forces, whose appearance sent the members of the mob scurrying for their homes, many of them faced with the problem of satisfactorily accounting to suspicious parents for bruised and battered faces.

[In connection with the above it is both gratifying and interesting to learn that several of the late "attackers," have, on the invitation of Mr. Hammer, now joined the Sea Cadet Corps.]

MONTHLY COMPETITION.

HALF-A-GUINEA FOR TWELVE WORDS.

ACTING on the suggestion of the Headmistress of the C of E. Girls' Grammar School, North Sydney, the Editor has decided to start a "missing" word competition for Juvenile Members of the Navy League.

We invite every Juvenile Member to fill in the blanks indicated in the appended paragraph.

While we —— of the ——— past, with all its ——, trials and ——, as well as of the —— benefits ——— upon the ——— race throughout the world, we must bear in mind that the future of —— people is —— in the hands of the —— and —— of ——.

Make your attempt on a separate sheet of paper and forward to THE EDITOR, NAVY LEAGUE JOURNAL, Royal Naval House, marking the envelope "Competition."

The effort which most nearly approaches the complete printed paragraph will receive the prize.

NO ENTRY FEE NECESSARY.

Attempts must reach the Editor not later than 25TH JUNE.

THE BRITISH NAVY.

FINANCIAL ESTIMATES, 1921-22.

The Navy Estimates for 1921-22 total £82,479,000 net, a reduction of £8,393,300 on last year.

The First Lord, in his explanatory statement, says that:

"Estimates can only be based upon policy, and the naval policy of the Government, as announced by my predecessor, in the House of Commons is to maintain a "One-Power Standard"—*i.e.*, that our Navy should not be inferior in strength to that of any other Power. The duty of the Admiralty is to carry out that policy, as economically as possible, and, recognising to the full the necessity for reducing expenditure to the lowest limits compatible with national security, the Admiralty have effected drastic economies, and agreed to assume risks, which, in ordinary circumstances, they would regard as difficult to reconcile with the full maintenance of the Government's declared policy."

Lord Lee announces that eight of the older 12 inch gun battleships in reserve are to be sold, and the number of capital ships in the Fleet will be thirty

"Of these thirty ships, the older types are becoming obsolescent and cannot be reckoned as efficient fighting units for more than a few years longer. The need for their gradual replacement by modern ships, embodying the lessons of the war, can therefore no longer be disregarded. In this connection it must be remembered that no capital ship for the Royal Navy has been laid down and completed since 1916.

"A sum of two and a half millions has, therefore been included in these Estimates as a first instalment for "replacement" ships.

"It cannot be too strongly emphasized that in making this long-delayed beginning with the replacement of obsolete ships, the Government neither commits itself to, nor contemplates, any building "Programmes" in answer to those of any other Power

"Indeed, it trusts that it may be possible, as a result of frank and friendly discussion with the principal Naval Powers, to avoid anything approaching to competitive building, either now or in the future.

"But meanwhile it would be a dereliction of duty on the part of the Admiralty to allow the efficiency, training or *moral* of the Royal Navy to deteriorate through neglect to provide it with *matériel* which is equal to the best and in which it can feel confidence. It is also imperative to avoid an irrevocable loss of time and building facilities which might make it impossible to maintain our sea security if it should be threatened"

EDITORIAL.

Contributions of a suitable nature are cordially invited, and should be addressed to the Editor.

Anonymous communications will not be entertained.

Correspondence of a business nature should be addressed to the Hon. Secretaries, Royal Naval House, Sydney.

'Phones: City 7786 and City 6817.

SACRIFICE AND SERVICE.

"Greater love hath no man than this, that he lay down his life for his friends." Nearly one million sons of the Empire passed into the Great Silence that their friends might carry on in the fullness of legitimate expression and freedom.

If length of life is measured not by seasons but by service and sacrifice, then our sailors and soldiers who did not return achieved the fullest and noblest life that earth can give.

A study of the figures on page 9 will unfold the magnitude of the Empire's endeavour.

Only by the glad sacrifice of self and the priceless gift of unadorned service to our less favoured fellows can we, who are reaping in temporary safety the fruits that our hallowed dead made possible, save the leaky ship of our democracy from the quicksands of Bolshevism.

THE COCKATOO WORKMEN.

HE GIVES TWICE WHO GIVES QUICKLY.

The New South Wales Branch of the Navy League views with grave concern the wide-spread distress prevailing in Balmain owing to the closing down of the greater part of the Commonwealth Naval Dockyard at Cockatoo Island, Sydney, and the consequent dismissal of considerable numbers of bread winners.

Starvation is a very real thing. It is the source of nearly every revolutionary tendency of modern times.

The League urges the Federal Government to do its utmost to alleviate the sufferings of the families of the men who are anxious to work.

The workmen do not want charity, nor is it desirable, but they do want the opportunity to earn an honest living. We earnestly hope that the Government will act promptly.

Members of the Executive Committee are reminded that the meetings in connection with the Royal Naval House and the N.S.W. Branch of The Navy League are held at 3 p.m. and 3.30 p.m. respectively on the *second Monday* of each month.

THE NAVY LEAGUE.

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The Rt. Hon. Lord Forster, P.C., G.C.M.G.
H. E. The State Governor Sir Walter Davidson, K.C.M.G.

PRESIDENT—
The Hon. Sir W. P. Cullen, K.C.M.G., etc., etc.
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EDITOR NAVY LEAGUE JOURNAL—
W. W. Beale, O.B.E.

THE League is a strictly non-party organisation whose primary object is to urge upon the Government and the Electorate the paramount importance of an adequate Navy as the best guarantee of peace. Its agencies are employed in educating the Nation, especially the children, in the knowledge of the principles and uses of Sea Power, as a means whereby the food, the industries and the floating commerce of the country are safeguarded, and as the necessary bond and protector of the Empire.

1. To advocate the continued maintenance of an effective Navy, Mercantile Marine, and Air Force, as the factors essential for the security of the Empire.
2. To encourage the scientific study of Sea Power and its uses, alike in peace and wartime, and to stimulate interest among teachers and scholars in all Universities, Colleges and Schools of the Empire in the achievements of the Royal Navy and Mercantile Marine.
3. To maintain and develop the N.L. Naval Colts and Sea Cadet Corps, to establish Training Institution, wherever possible to prepare boys for a sea career to the end that aliens may be eliminated from the British Mercantile Marine.
4. To assist the widows and dependents of officers and men of the Royal Navy, including the Royal Australian Navy, Royal Marines and Mercantile Marine who have been injured or who have lost their lives in the War, and to educate their children.

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for life	[illegible]	0	0	
Fellows (Ladies & Gentlemen)	1	1	0	annually.
Do. Do. for life	10	10	0	
Members, with publications post free, not less than	0	5	0	Annually.
Juvenile Members	0	1	0	annually and upwards.

To THE HON. SECRETARIES of
The New South Wales Branch of the Navy League,
Royal Naval House, Sydney.

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THE League is a strictly non-party organisation whose primary object is to urge upon the Government and the Electorate the paramount importance of an adequate Navy as the best guarantee of peace. Its agencies are employed in educating the Nation, especially the children, in the knowledge of the principles and uses of Sea Power, as a means whereby the food, the industries, and the floating commerce of the country are safeguarded, and as the necessary bond and protector of the Empire.

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"THE NAVY" is the Organ of the Navy League. It appears monthly.

HOW TO JOIN THE NAVY LEAGUE:—

Vice-Presidents	£5	0	0	annually.
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Fellows (Ladies and Gentlemen)	1	1	0	annually.
Do. Do. for life	10	10	0	
Members, with publications post free, not less than	0	5	0	annually.
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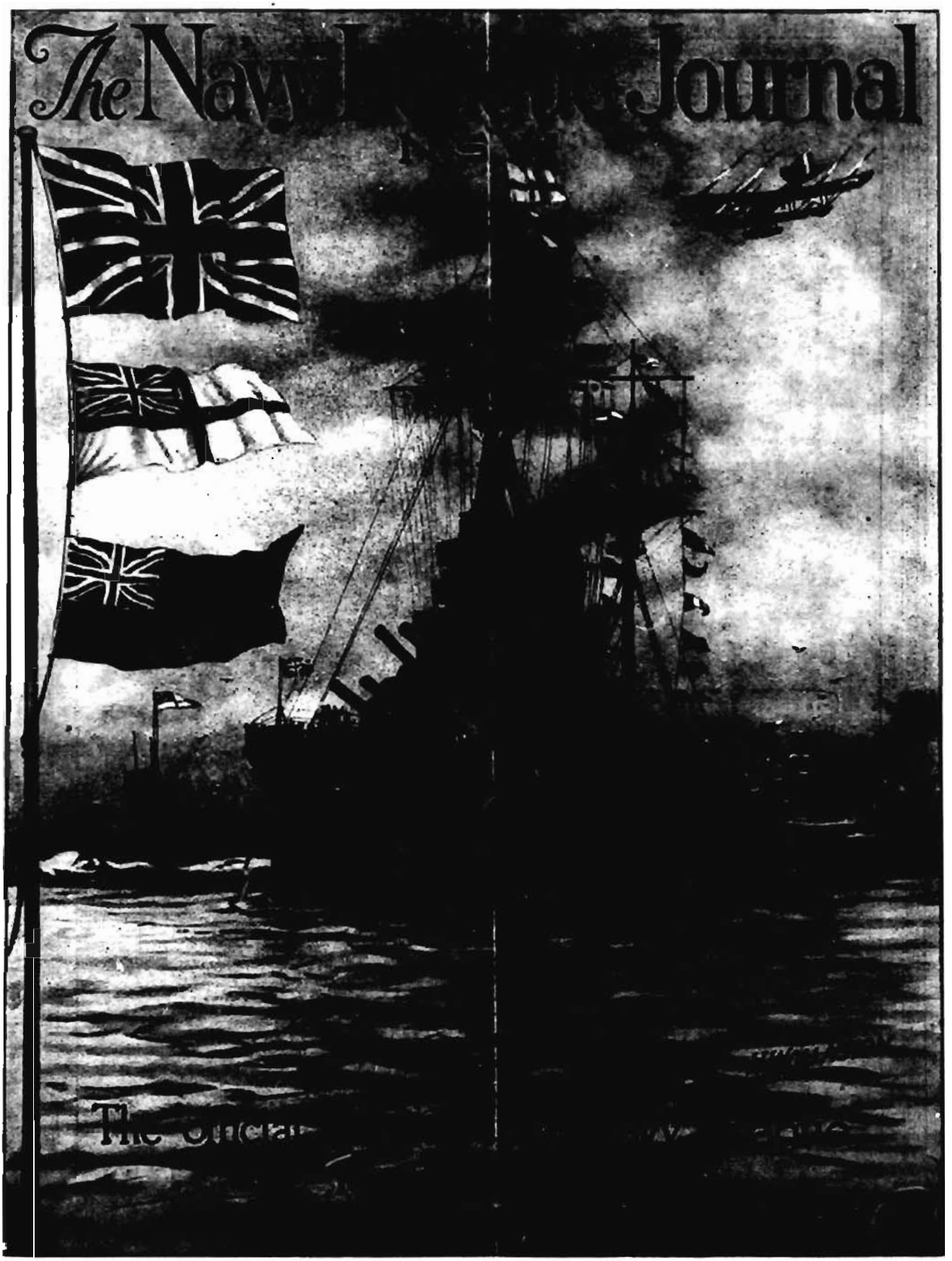
VOL 2. NO. 3.



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The Navy League Journal

NEW SOUTH WALES BRANCH.

VOL. II. SYDNEY, JULY, 1921. No. 3.

THE NAVY LEAGUE.

ITS ORIGIN: POLICY: AIMS: EXPANSION.

THE Navy League is one of the oldest purely patriotic, non-political, non-sectarian, organisations in the confines of the world-wide Empire that salutes the Union Jack. It had its birth in the brain of an Englishman, Robert Yerburgh by name, hailing from Blackburn, Lancashire. The first President of the League was Admiral Sir Phipps Hornby.

The Headquarters of the Navy League are situated at 13 Victoria Street, London, S.W.

"The Navy," a brightly written, illustrated magazine, is the official organ of the parent organisation and is published in London monthly.

Briefly stated the Navy League holds that the time is opportune to use every endeavour to bring the two great English speaking races closer together in a bond of trust and understanding.

It believes that the United States and the British Commonwealth of Nations "should give the lead in proposing a Conference between all those powers whose geographical positions impose upon them the guardianship of the seas, and to decide in what way this joint guardianship may best be carried out."

The League argues that "the spirit which makes for co-operation is to be found in greater measure amongst seamen than among the members of any other calling, for their oldest traditions are built on it. Therefore the personnel of such Conference should be largely composed of seamen who have held high command at sea."

The development and maintenance of a better understanding between the great Republic and ourselves then, is the avowed policy of our organisation.

Until the time when such international agreement or other agency makes the occurrence of war absolutely impossible the Navy League holds that for the purposes of self defence it is its duty to warn the Empire to keep awake and beware of those who preach the gospel of the Brotherhood of man and forget to practice it.

It therefore aims at encouraging all children who have arrived at the age of understanding to take a greater interest in the achievements of the British Navy and the Empire's Mercantile Marine. The continued maintenance of effective sea services is advocated as the best guarantee of peace and the surest safeguard of the Empire. Further, the Navy League aims at establishing and maintaining suitable depots whereat volunteer boys may be trained for a sea career to the end that aliens may be eliminated from the Empire's Mercantile Marine.

In the years that have passed into history since 1895, the year the Navy League was founded in the old country, branches have been established throughout Great Britain, Canada, South Africa, India, New Zealand and Australasia. There also are branches in nearly all the smaller and more remote (but none the less patriotic) portions of the earth's face where the British race holds sway.

Even in the British quarter of foreign cities adjacent to the sea, small gatherings of Navy Leaguers take place.

In Canada the growth of the League has been extraordinarily rapid, outstripping every other Dominion. From Halifax on the Atlantic seaboard to Vancouver Island on the extreme west, the Navy League is an active force.

"The Sailor," the official organ of the Canadian Navy League, is a high-class monthly publication circulating far and wide through the homes in the vast Dominion. Recognising the proved value of organised and insistent publicity Canadian Navy Leaguers whole heartedly support their powerful Journal.

New South Wales and Canada excepted, no other branch of the League has undertaken the responsibility of producing and maintaining a mouthpiece in print. True, our own little journal is in its babyhood, but it is a sturdy infant and bears unmistakable signs of attaining a healthy and virile maturity. Not even the fungus known as "apathy," which thrives on the branches of the League in Australia, can stay its progress.

The Navy League in New Zealand is infinitely stronger in proportion to the population than its counterpart in Australasia.

In the October, 1920, issue of this Journal a suggestion was made to this effect: That steps be taken to establish an Australasian Council of the Navy League, thus paving the way to closer and more effective co-operation between the various branches throughout Australia and New Zealand. Why not? If it is not worth while, then the Navy League branches in the two countries are not worth while, and should be scrapped in favour of a more progressive and far-seeing patriotism. More than any other part of the Empire, Australia and New Zealand owe their continued existence as nations to Britain's maritime supremacy. The sea is our all-in-all, and therefore, it is our duty to ourselves and to those that come after us to keep alive that glorious spirit of freedom which was suckled from the breast of the ocean by our forefathers, and which is to-day our greatest and holiest heritage.

Every thinking individual must know that. Therefore, ye members of the League strengthen your branches by enrolling those individuals. They are your friends.

THE FIGHTING SHIPS OF THE BRITISH NAVY.

WITH A FEW REMARKS ON SOME OF THE FACTORS CONSIDERED IN THEIR DESIGN.

BY

J. J. KING-SALTER.

(CONTINUED FROM THE JUNE ISSUE OF THE JOURNAL.)

I propose now to briefly run over some of the factors that enter into the design of a modern warship

The points to be considered may be enumerated under the following heads:—

Strength.
Stability.
Speed.
Handiness.
Habitability.
Convenience for transporting fuel and ammunition.
Economy of first cost and maintenance.
Endurance without replenishment of stores.
Protection.
Armament.

A modern warship is about one of the most complex aggregation of pieces of mechanism that can be brought together in one small space, and includes the results of the accumulated scientific brain-work of many years of almost every kind that science has devised, and it is the Naval Architect's problem to so arrange the whole to fulfil the varied duties which modern warfare demands of it. Taking the points in the order given, first:—

STRENGTH: The vessel has to withstand the buffeting of all weathers; it has to be strong enough to carry the great engine powers put into it, to carry the weights of the heavy armour, amounting to many thousand tons, mostly localised, the weight of the great guns and heavy barbettes or turrets, to lift the heavy boats, to withstand the blast from the main guns, which is no light thing, and many other features incidental to a warship which do not

exist in a merchant ship. By carefully pruning, the result of many years of experience, and the use of high tensile steel, the weight of the hull has been made remarkably small, only a little over one-third of the total weight. Warships are not built according to Lloyds or other similar rules, but are the result of many years' experience of stiffening here and lightening there.

STABILITY is a vital quality. A warship has to have more stability than a merchant ship, to allow of a fair amount of damage, but unfortunately the very factor which gives greater stability militates against a steady platform, so that it is a matter of compromise; also, in order to obtain stability, it is necessary to have more beam, which is antagonistic to speed, but the presence of so much weight due to the side armour, guns and their turrets all high up, likewise necessitates a beamy ship. Battleships and battle-cruisers for this latter reason have to be much wider in proportion to their length than the other vessels.

SPEED, as this war has shown, is of vital importance, and the main problem is to get as great a speed as possible, consistent with other requirements. With the advent of turbines, especially geared turbines, water tube boilers and oil fuel, the Naval Architect has been able to obtain much more power for a given weight than he could only a few years ago. Let us consider what are the elements affecting speed: There are three main factors, which affect this. (1) Surface friction; (2) wave making; and (3) eddy resistance; and, also, another most important factor is the form or shape of the vessel under water. At low speeds the resistance is almost entirely due to (1) *i.e.*, the friction of the underwater surface through the water, but at high speeds the main factor is (2) *i.e.*, the resistance caused by the waves created by the vessel when travelling at speed. When a surface vessel is driven through the water, waves are formed mainly of two kinds. The one set forms a group of short waves, diverging from the bows of the vessel, and travelling outwards at an oblique angle, and the second set follow the vessel with their crests travelling in the same direction as the vessel, and absorb, at high speeds, by far the greater portion of the power. Now the length of these latter waves, from crest to crest, depends entirely upon the speed of the ship, and in a vessel travelling at, say, 20 knots, the length between crests will be not far short of 20 times 20 ft., *i.e.*, 400 ft., roughly, as the square of the speed, and it is proved that if the length of the vessel is long enough to span this length, the power required will be a minimum for that speed. If the vessel was of less length than the length of this wave, the power required is very considerably more. It is this factor which necessitates such high power in small vessels, as witness the power required in destroyers, which are vessels of about 300 ft. in length. Length of ship is all essential to obtain speed for the minimum of power. The shorter the vessel relative to the speed, the more power is required to drive her at a high speed, so that we see how the tendency of modern vessels, when high speed is required, is towards greater lengths. Beam or width in moderation is not so important as length. As an instructive and concrete example, let us take the "Brisbane," whose length is 430 ft. Her economical speed for her length would be about 20½ knots. For this speed only about 9,000 h.p. is required, but to get the extra 5 knots, the power has to be increased to about 24,000 h.p. At 22 knots, she absorbs about 12,000 h.p.; therefore to obtain the extra 4 knots requires double the horse-power to what it does at 22 knots, and so far as is at present known to science, there are no means of getting over this; all that has been done is to obtain more power with much lighter machinery. I have explained how costly speed is in horse-power; unfortunately, about half the power is wasted in the screws—a serious loss, but so far no one has been able to discover a more economical means of propulsion.

At high speeds, therefore, a very large proportion of the power is absorbed in wave making. Eddy resistances may also be a serious item in a badly-designed form. Fortunately for the Naval Architect, he is able to experiment with the form he has designed by using a model on a small scale, made to exactly the same lines as the proposed ship, and he can, from these experiments, determine how the shape can be improved. These model experiments form a very important part in the present-day Naval Architect's work.

HANDINESS.—It has always been recognised that handiness is an essential quality in a warship, and this war has more than ever confirmed this point. Now, to get handiness, it is necessary to have a short ship; to cut away the ends and to have very large rudders; this latter in very high-speed ships involves considerable weight to get the necessary

Continued on page 13

THE BOY SCOUT.—SCOUTS and PUBLIC SERVICE.

By F. Danvers Power.

AUSTRALIAN PARENTS ALERT!

Have you ever realised what a Boy Scout is? Then, if not, read the Boy Scouts' page in this Journal each issue.

(CONTINUED FROM LAST ISSUE).

A missioner is really a sick nurse and is a most useful individual not only to the aged and infirm whose day is nearly run, but to others who are temporary invalids. This includes bed making when the sick person is confined to his bed, the changing of sheets so that the invalid does not catch cold: the ventilation of the sick room without causing draughts: invalid cooking, and a hundred and one other things which help bring the sick back to their normal health. This knowledge is of special value in the bush where trained nurses are not available.

The public health badge is closely allied to the two former. It requires a knowledge of infectious diseases, the period of incubation of each, the precautions to be taken, how to disinfect a room or house in which there has been a contagious disease. The necessity and method of removing and disposing of house refuse and rubbish and a good general knowledge of the laws governing dairies, dairy farms, slaughter houses and butchers' shops.

The rescuer has to be able to dive and fetch up an object from a certain depth, he must be able to undress while out of his depth in the water, and must be able to carry out the Schaefer method of resuscitation as applied to a drowned person.

The fireman learns how to handle a hose and hydrant, a fire extinguisher and ladders. He must know how to give the alarm to the fire brigade and police; how to prevent the spread of fire; how to rescue animals; how to keep back crowds; how to improvise ropes and jumping sheets, and several other things which help to make him a very useful assistant in cases of emergency. Mr. Superintendent Sparks of the Fire Brigade has kindly given instructions to his various branches to assist the Boy Scouts as far as possible, and the firemen always show themselves willing to teach those who wish to learn.

The Pathfinder is another useful individual, but the test is rather severe. He has to have a knowledge of the locality round his club room, not only the streets but also the history. The area depends on the number of inhabitants: if 20,000, the area has a radius of 2 miles: if between 20,000 and 500,000 the radius is 1 mile: if over 500,000, the radius is ½ a mile. His knowledge must include the whereabouts of fire brigades, police stations, general hospitals; post, telegraph and telephone offices; railway, tram and omnibus routes; the principal doctors, livery stables, motor garages, cycle repairers and factories. He must have a general knowledge of the district so that he can guide strangers by day or night within five miles radius of his club room and give general directions how to get to the principal suburbs or towns within 25 miles radius. Any one who visits a strange place will appreciate clear directions. When in the country and you ask your way, how often do you get a reply after this kind. "Go on for half a mile (his half mile and yours do not happen to tally), you will see a tree (you meet with dozens of trees about that part, your informant does not tell you what kind of tree, size or any peculiarity about it by which you might recognise it), don't take any notice of it, but keep right on till you come to an ant heap (you are tripping over ant heaps all the way), turn to your left....." and so on, which information is worse than useless.

What a difference it makes if you go out camping with a boy or man who is accustomed to camping and knows what to do. He knows what is necessary to take and what is best left behind: he knows how to make himself comfortable with very little more than he finds in the bush: he knows where to secure food, how to light a fire when everything around appears to be wet: he is resourceful and handy. Compare him with a boy who knows nothing about camping, who is no use to help you because he does not know what to do and it is quicker to do it yourself: he is as likely to pick up a snake as a piece of wood for the fire, he throws scraps of food about the camp to attract undesirable insects, he wastes more food than he eats by bad cooking, he leaves his things out in dew over night, and generally makes a nuisance of himself.

An interpreter has to know some foreign language or esperanto. He may or may not have an opportunity of travelling in a foreign country, but there are plenty of foreigners in Australia to whom he can be of use. If he reads the language, a new class of literature is opened to him.

MONTHLY COMPETITION.

HALF-A-GUINEA FOR TWELVE WORDS.

We invite every Juvenile Member to fill in the blanks indicated in the appended paragraph.

"It is —— no —— spirit that the Navy impresses on the —— the importance of the —— of this — inheritance. —— nations are around us ready to —— our —— If we relax our efforts. Are we —— unworthy? Have we done, are we doing, nothing to —— our —— ?"

Make your attempt on a separate sheet of paper and forward to The Editor, Navy League Journal, Royal Naval House, marking the envelope "Competition."

The effort which contains the highest number of "missing" words agreeing with the complete original paragraph will receive the prize.

Attempts must reach the Editor not later than 25TH JULY.

The correct reading of last month's "missing" word paragraph is:—

"While we think of the glorious past, with all its troubles, trials and anxieties, as well as of the inestimable benefits conferred upon the human race throughout the world, we must bear in mind that the future of the British people is largely in the hands of the men and women of to-day."

The paper sent in by John Trollope contained the greatest number of correct words and the prize has been awarded to him.

The second best was submitted by Nancy Blackman.

NAVY LEAGUE SEA CADETS

READY 1920 READY
TAYE

SNAIL'S BAY DEPÔT, BALMAIN.

The advent of the naval cutter at the depot has intensified the keenness of the Cadets to excel in their manifold duties. During the school holidays the boys were afloat daily, the Officer-in-Charge of the depôt (Mr. Hammer) accompanying them and instructing them in the art of rowing and steering.

The active strength of the Corps at the present time is 200. All the boys have been supplied free with uniforms by the Navy League.

ROUTINE.

MONDAY—8 to 9 p.m.—Band Practice.
TUESDAY—7.30 to 9 p.m.—Mechanicians Class.
WEDNESDAY—8 to 9 p.m.—First Aid.
THURSDAY—7.30 to 9.30 p.m.—Squad Drill and Physical Exercises.
FRIDAY—7 to 9.30 p.m.—Recreation.
SATURDAY—2 to 5 p.m.—Seamanship.
SUNDAY MORN—Church Parade.
SUNDAY—2 to 5.30 p.m.—Away Boats.

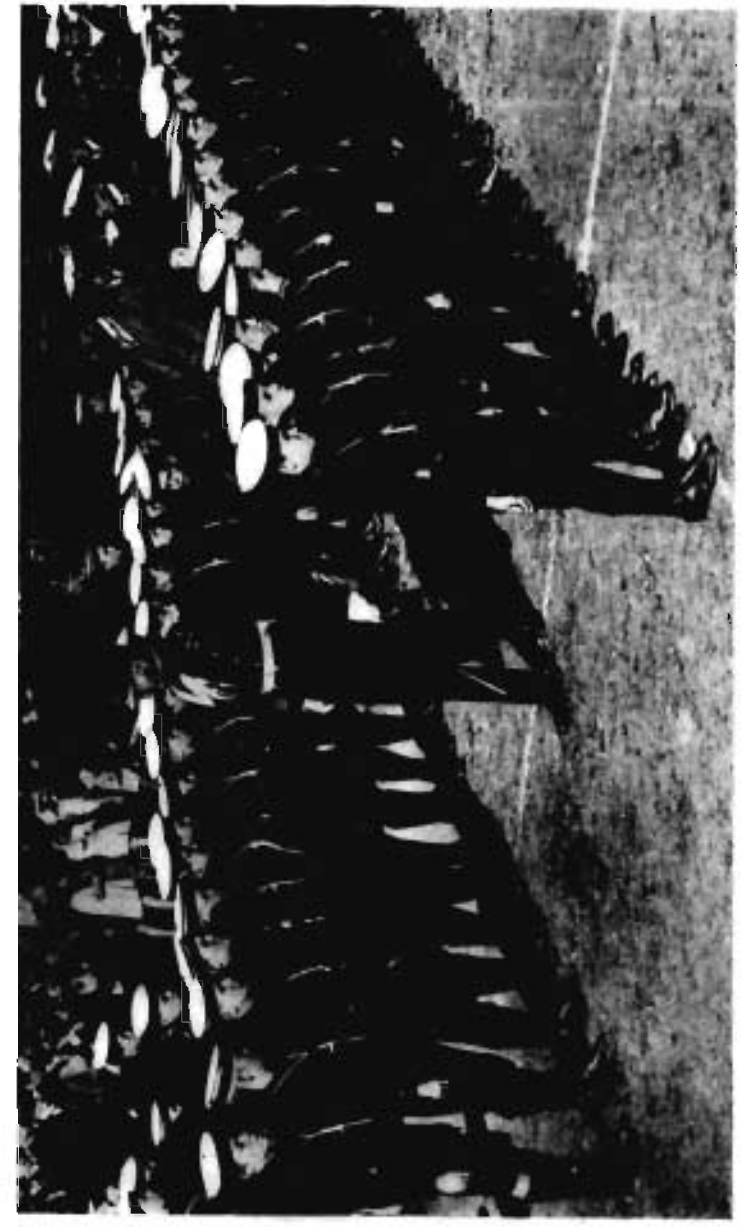
HIS EXCELLENCY THE GOVERNOR-GENERAL.

Lord Forster, accompanied by the State Governor (Sir Walter Davidson) inspected the New South Wales Navy League Sea Cadets at the Australian Naval Review recently.

THE COMMANDER OF AUSTRALIA'S NAVY.

It was Rear-Admiral Dumaresq who invited the Navy League to send 100 Sea Cadets to take part in the Review.

SCENE at the NAVAL REVIEW.



THE GOVERNOR-GENERAL PASSING DOWN THE LINES OF NAVY LEAGUE SEA CADETS.
The Cadets, under the command of Mr. W. L. Hammer, were drawn up in the rear of the Naval Battalion.

It is understood that a gentleman residing at Balmain has invited the Officer-in-Charge of the Navy League Sea Cadets to accept, on behalf of the Corps, the gift of a 12-foot dinghy. Such a boat would be immensely useful at the base in a great variety of ways and would supply a long felt want.

In response to the Navy League's appeal for funds for the purposes of providing uniforms for our Cadets and equipping a training depot, donations as shewn hereunder have been received from the following :—

Messrs. Farmer & Co., Ltd.	£10	10	0
Sir Hugh Dixson	5	0	0
Hon Dugald Thompson	5	5	0
Messrs. Sargood Bros.	5	0	0
E. S. Loveridge	2	2	0
W. Simpson	2	0	0
A. C. Stephen	1	0	0
Previously acknowledged	501	19	0
Total	£532	16	0

THE NAVY LEAGUE.

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S. J. Clarence

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L. Gordon Bain
E. J. Bayley
W. Milson Bligh
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T. S. Bradley
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W. Dinale
K. Duncan
W. H. Davies
J. Duggan
Mrs. B. Douglas
Miss P. Dean
Miss Ruby Doyle
Mrs. T. S. Dixson
Wm. Davidson
Leonard Dale
T. C. Day

THE LATE
SIR JOHN RUSSELL FRENCH, K.B.E.

AMONG the many tributes paid to the memory of this distinguished Banker and Citizen throughout the Australian Press, there still remains for this Journal to record his close connection with the Navy League, New South Wales Branch, since its inception within this State. Sir Russell filled the position of one of the Honorary Treasurers with Sir Thomas Dibbs and Mr. Kelso King and invariably took the Chair at the Monthly Meetings

SIR JOHN RUSSELL FRENCH, K.B.E.

of the Executive Committee. His absence will be much felt, for his wise counsels and able leadership proved a great source of strength to the League.

A further scene of his activities lay in his position as one of the Trustees of the Royal Naval House for many years in which capacity he willingly gave up much of his valuable time by regular attendance at the Monthly Meetings and thus gave evidence of his kindly interest in our Blue Jackets and the betterment of their welfare in their "Home on Shore."

strength, and also involves powerful engines and gear to work the rudders. It is thus seen that handiness will have to be generally sacrificed for length, or compensated for by still larger rudders, which is what is usually done.

HABITABILITY.—This speaks for itself. It is most essential that the officers and crew should have healthy quarters. Vessels with a high freeboard are naturally better for this than low ones, but high freeboard in a warship offers a greater target, incidentally it is necessary that the guns should be so far above the water level that they can be worked in all weathers; this involves high freeboard; here again we get contradictions; the want of this quality in some of the older vessels has been disastrously demonstrated in the present war. Another item affecting length is the question of ventilation and heating. As it may be not difficult to suppose, this is a most difficult problem in a ship fitted with side armour in which it is prohibitive to cut holes for scuttles, and the numerous subdivisions also greatly intensifies the problem. Recourse has had to be made to fans with long lengths of trunks, all of which add considerably to the complications. I may say, this matter has received greater attention in more recent years.

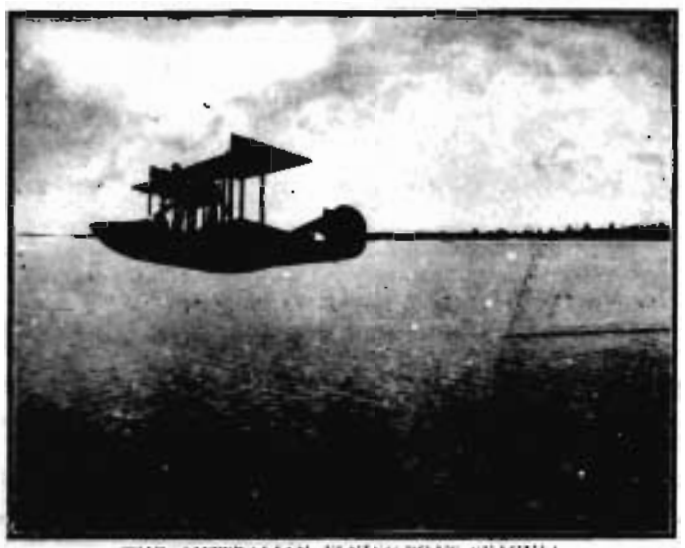
CONVENIENCE OF TRANSPORTING AMMUNITION AND FUEL.—One of the most difficult problems in a warship design is to arrange the magazines that the shells and ammunition are conveniently stowed in the magazines, and that they shall have the shortest possible passage to the guns they have to serve. The arrangements as regards this, in the ships with big guns in barbettes, is generally as perfect as it can be made, the magazine being situated right beneath the gun; but for the secondary armament, this is not so easy. Then as regards coal, which in a warship is generally bunkered on either side of the boilers and aft alongside the engine-room, for protective purposes. It is most essential that it should be readily transported to the stokeholes, but this has always been an almost insuperable problem, so that in some ships it is so far away from the boilers that it is almost impossible to use it. With oil fuel these difficulties entirely disappear, as it can flow by gravity or be pumped without any trouble.

ECONOMY OF FIRST COST AND MAINTENANCE.—This is naturally a most desirable feature in the building of a warship. Efficiency, however, cannot be sacrificed to cheapness, so that only the best of its kind of every possible article, fitting, or workmanship, is ever allowed. Economy in maintenance depends a great deal on the efficiency and quality of the fittings first installed, and the care taken in looking after them by the ship. A warship can never be a cheap article; everything in it having the best of its kind does not lead to cheapness, and when armour costs nothing less than £100 per ton, it is seen where very large sums of money can disappear. Every year the increasing number of special fittings for gunnery control and other things keep on adding to the cost, but the improvements in workshop machinery and modern methods of work have so reduced cost that it is possible to build them at a less cost per ton than previously, but naturally as the total weight increases, so the total cost must grow even up to two and a half millions and over.

ENDURANCE.—By this is meant the capacity of the vessel to carry large stocks of stores, ammunition, shell, coal or other fuel, provisions etc., the amount of weight required for ammunition and shells is a very heavy item, especially when you have such guns as 15 inch, which at every discharge throws away between 1¼ and 1½ tons in weight in powder and shell. The amount of coal or oil fuel a vessel can carry determines what is called the "radius of action," and this question is one of those that has to be very carefully considered when the type of vessel and its future duties are being considered, and with vessels with large horse-power and high speed, the amount of fuel carried is a very considerable item, if the vessel is to have a long radius of action. In a modern battle-cruiser it is between 4,000 and 5,000.

PROTECTION, or, as it is also called, "slowness of destruction," this is provided for by armour and minute subdivision. Compared with a merchant ship, a warship is always most minutely subdivided, but, unfortunately, owing to the necessity of so many compartments having to be opened in action, the value of the subdivision is a good deal lost. Greater slowness of destruction could be obtained by increasing the stability. Whether the stability has been too low is a matter which is, no doubt, receiving close attention, but as already stated, greater stability leads to an unsteady gun platform. Which item, therefore, is of the greater importance? It also means more

Continued on page 15.



THE AUSTRALIAN FLYING-BOAT SEAGULL.

AFTER AN ABSENCE OF FOUR MONTHS SPENT IN SURVEY WORK AROUND OUR COASTS THE SEAGULL HAS RETURNED TO PORT (SYDNEY)

Courtesy "Sydney Mail"

beam, and therefore either more horse-power or less speed. A warship is nothing but a huge compromise, and the balancing of all the conflicting qualities is the great problem in their design.

ARMAMENT.—The kind of armament, i.e., the guns and torpedoes, the vessel will have, will depend largely upon the class of vessel she is intended to be. If a battleship, then a very considerable proportion of her total weight has to be set aside for this purpose, whereas in a cruiser or scout or destroyer, armament has to give place to power for speed. A modern warship is a combination of great complexities, all of which have to be co-ordinated to fulfil the desired results, and carefully balanced to provide for the great multiplicity of fittings and duties which make up the ship. Electricity has entered very largely into recent ships to provide power, for auxiliaries, light, heat, telegraphs, telephones, gyro-compasses, wireless, bells, hummers, firing circuits, searchlights, and numerous other fittings, many of them of a very delicate and complicated character, necessitating many miles of electric leads of all descriptions. Experiments have been made to try and work the big guns electrically, but so far in the British Navy an hydraulic system has been proved more reliable. Some proposals have been made to drive the ship by electric motors with power generated by turbine engines, but so far in the British Navy I am not aware that this has been adopted. It may be of interest if I quote what Sir W. White, one-time Director of Naval Construction, said on the problems involved in the first stages of a design. Observing that it is the duty of the Director of Naval Construction to produce a design to meet the requirements of My Lords of the Admiralty, who say they want a ship to have such and such qualities, the Director then designs a vessel to these requirements, but he has a pretty free hand in proposing modifications or new designs. However, the following is what Sir W. White says:—

"In the preliminary stages the processes are necessarily tentative and subject to correction. The various features of the design are, to a large extent, independent. At the outset the dimensions, form, and displacement are undetermined. Yet upon them depend the power which the engines must develop to give the desired speed, the weight of the hull and the weight of certain parts of the equipment. In the finished ship the sum of the weights of the hull structures, propelling apparatus, equipment, coals, and load must equal the displacement to be specified load-line. Apart from experience, a problem involving so many unknown yet related quantities could scarcely be solved. On the basis of experience, recorded data, and model experiments, it is dealt with readily. Approximate dimensions and forms are first assumed. The weight of hull is then approximated to for the system of construction adopted, and of the type of ship. An estimate of the probable engine power is made, either on data obtained from the steam trials of previous ships or from model experiments. The weight of the engines and boilers is then ascertained for the horse-power, and the weight of coal consumption per hour calculated on the same basis, while the total weight of coal for the intended steaming distance at the desired speed is readily deduced. Adding together these first approximations to the weights of hull, equipment, machinery, and coal, and to the total adding the load stipulated to be carried, a grand total is reached which should equal the displacement provisionally assumed. If the sum total is in excess or defect of the provisional displacement, corrections must be made on the dimensions originally assumed, with a view of obtaining a balance. For these corrected dimensions a fresh series of approximations is made to the weights of hull, equipment, machinery, and coal. A balance between the grand total of weights and the displacement corresponding to the form and dimensions, is ultimately obtained. When no large departure from previous experience or precedent is made, this preliminary work is rapidly performed. Under other circumstances the selection of the most suitable dimensions and the form may involve the consideration of many alternatives."

One of the problems the Naval Architect has to contend with is the frequent request for the addition of this or that fitting, which, in themselves, do not amount to very much, taken one by one, but in the aggregate total up to large weights, and it is also generally not realised that the addition of another fitting often involves considerable increases in weight in other parts of the ship to provide for it; for instance, the substitution of two larger boats, each weighing 18 tons, in lieu of two others of 9 tons each, would involve the addition of 150 tons to the ship to provide for them.

FIGHTING SHIPS OF THE BRITISH NAVY

CONTINUED.

One of the reasons for the falling off of the speed of a warship is this continual adding of new fittings, which adds weight, and therefore sinks the vessel deeper, with a consequent loss of speed. It may not be realised how much the continued application of paint adds weight to a ship; that this is so will be evident when it is stated that the total weight of paint put into a new large ship amounts to 100-150 tons.

Finally, in order to give some idea what has to be sacrificed for speed, the following is a comparison between two similar vessels as regards size, but differing only in speed, and that by only 3¼ knots. Displacement, 3,000 tons for each vessel:—

Case 1.—Speed, 21¼ knots; h.p., 9,800; armament, 12 in. No. 4 in., 8 in., No. 3 pdrs., and 2 in No. 3orpedo tubes; protection, 2 in. and 1 in.; coal, 300 tons.

Case 2.—Speed, 25 knots; h.p., 17,000; armament, 10 in., No. 12 pdrs., 8 in., No. 1¼ pdrs., 2 torpedo tubes; protection, 1½ in. and ¾ in.; and at the same draft as the first vessel, the latter can also only carry 150 tons of coal.

GOOD SAMARITANS.

The Royal Shipwreck Relief and Humane Society of New South Wales is ever ready and willing to assist the dependents of sailormen who have lost their lives in the execution of their duty.

In connection with the recent loss of the steamers "Fitzroy" and the "Our Jack," and the resultant loss of life, the Society has interested itself in ascertaining the whereabouts of the bereaved with the object of rendering immediate assistance in tangible and welcome form where cases of a necessitous nature are unfolded.

Unobtrusively and without thought of recognition this Society has befriended many who have been left behind by those who have "gone down to the sea in ships" and have not returned.

THE FLAG OF THE PEOPLE.

The Union Jack, says a writer in the Sydney "*Sun*," has a history of the deepest significance. It was not born of revolution, nor does it perpetuate a dynasty. It is a flag of the people, developing with the growth and expansion of the race.

The word "Jack" has suffered from a false derivation. Its name has been traced to King James I. of England, who first issued the flag combining the national crosses of England and Scotland, and who signed his name "Jacques." But there were "Jacks" long before his time. The Jack is really a jacket. In the earliest days of chivalry, long before the Norman Conquest, the liege lord wore a heraldic device upon his coat of arms. It may be said that the first flag-wagger waved his coat, like the figurative Irishman, who dares anybody to tread on the tail of it. In later times that device was borne on a staff. In the interview between the heathen king Aethelberht and the Roman missionary Augustine the followers of the latter bore banners upon which silver crosses were displayed. When William the Conqueror came he carried a banner sent to him by the Pope. In the Bayeux tapestry are depicted many Saxon pennons; and it is recorded that Harold had a dragon standard placed near him at the Battle of Hastings. The modern Hohenzollern, despite his fondness for pomp and splendor, put up no standard during the war. Harold was killed, the Kaiser wasn't.

THE THREE CROSSES.

The basis of the Union Jack has been the national banner of England for centuries. The red cross of St. George, England's foreign-born patron saint, was adopted during the Crusades; and naturally acquired a religious significance. The early English kings had fought under the banners of Edward the Confessor and St. Edmund. It was from a combination of the three national "Jacks" of England, Scotland and Ireland that the Union Jack has grown to its present form, upon its basis of a plain "red cross" on a ground of white.

From 1274 onward the St. George's cross and the legend of St George and the dragon are in plain evidence in England. Under this cross Drake sailed round the world; Raleigh founded Virginia; Elizabeth's navy smashed the Armada of Spain; and it went gloriously down proudly flying on the Revenge. And to-day this single cross is happily retained in the British Navy as the Admiral's flag.

SCOTLAND'S SHARE.

Room for Scotland! St. Andrew was the patron saint of Scotland, his flag being a diagonal white cross on a blue ground. It was carried by Bruce victoriously at Bannockburn. When James I. of England united the two kingdoms a new flag was necessary. This Jack came to be known as the "Union Flagge." The form was the creation of heralds, who had to preserve the strict rules of their technical craft; one of which was that a narrow border of white or gold must be introduced where color would touch on color, for the purpose of keeping the colors separate. So the heralds, solemn and touchy birds, reduced the white ground of England's flag to a mere narrow margin of white, just sufficient to keep the red of the cross of St. George from touching the blue ground of Scotland's flag.

And, as usual, Scotland got the best of the deal. Possibly the herald was a Scot—they worm their way into all the professions. The blue ground of Scotland's flag took possession of the Jack, leaving the white ground of the English flag merely as a narrow border. This flag was known as an "additional" Jack, and it was ordered to be flown together with the national flags.

For over a century it flew, though with changes in its use. Cromwell's flag was a failure.

The first real Union Jack appeared in 1707. The white border surrounding the St. George cross became a broad white band, thus giving England back her rightful share of the Jack. It was this flag that flew over Nelson. And this was the flag that was first planted in N.S.W. It was our first Union Jack—and there was no Irish in it.

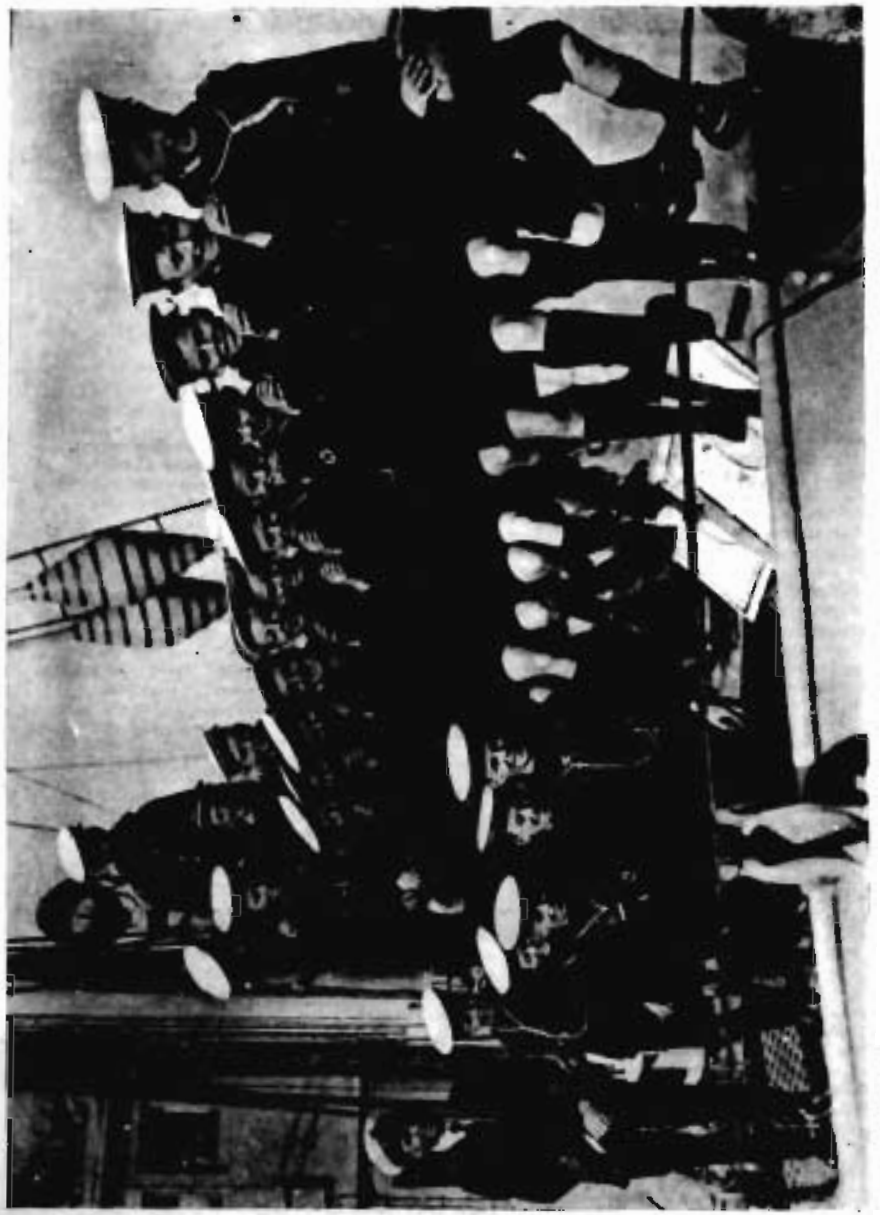
ROOM FOR ST. PATRICK.

Meantime the Irish, who had been equally subjects of James I., had had no share in the Jack. It was not till 1801, when the Irish Parliament was united with the Union Parliament of England and Scotland, that the red cross of St. Patrick was blended with the other two national crosses. As in the case of Scotland and England, it needed a union of parliaments, not the union of the kingdoms under one sovereign, before the emblem of Ireland appeared on the national flag.

This Irish Jack was a diagonal red cross on a white ground. It had not been formally recognised as the general emblem for Ireland till late in the 17th century.

So the Union Jack of to-day was formed in 1801. In it the diagonal crosses of Scotland and Ireland form the background, whilst the red cross of England surmounts them, as it were, laid upon and distinct from its background. The white border cuts it definitely off from the other crosses.

Incidently, it may be mentioned that the Union Jack is the flag on which the sun never sets—now rises.



YOUNG AUSTRALIA.

N.S.W. Navy League Cadets enjoying themselves on board H.M.A. mine sweeper "Marguerite" on the occasion of the Review of the Fleet by the Governor-General last month.

CONTENT.

Happy the man whose wish and care
A few paternal acres bound,
Content to breathe his native air
In his own ground.

Whose herds with milk, whose fields with bread,
Whose flocks supply him with attire,
Whose trees in summer yield him shade,
In winter fire.

Blessed who can unconcern'dly find
Hours, days and years slide soft away,
In health of body, peace of mind,
Quiet by day;

Sound sleep by night: study and ease
Together mixed: sweet recreation:
And innocence, which most does please
With meditation.

Thus let me live, unseen, unknown,
Thus unlamented let me die:
Steal from the world, and not a stone
Tell where I lie.

A. POPE.

THANKS.

On behalf of The Navy League, New South Wales, the Editor thanks the "SYDNEY MAIL" for the very great assistance rendered in the matter of "blocks."

Since its inception "The Navy League Journal" has relied in a very large measure on the Mother State's premier illustrated paper for its principal illustrations, and never at any time has a request from the Navy League been met with a refusal.

SUPPORT OUR ADVERTISERS.

EDITORIAL.

Contributions of a suitable nature are cordially invited, and should be addressed to the Editor.

Anonymous communications will not be entertained.

Correspondence of a business nature should be addressed to the Hon. Secretaries, Royal Naval House, Sydney.

PHONES: CITY 7786 and CITY 6817.

THE SEA AND ITS PERILS.

Australians in general never think of the sea as stretching beyond the 3-mile limit. It takes a 60-mile-an-hour tempest to blow their thoughts across that league of untamed water. Judging by the remarks one heard on ferryboat, train and tram, the recent storm accomplished the feat. It conveyed to their imaginations blurred and unreal pictures of fearful happenings beyond range of sight. The pictures did not become clear and real until the newspapers unfolded a pitiful tragedy—the sudden helplessness, destruction and disappearance of many strong human lives, with the loss of two local steamships off the coast of New South Wales on the morning of 26th June last. The vessels were but small. There are times when leviathans share a similar fate.

Wind and wave combined in their staggering strength and awful grandeur, are not the only perils the seaman knows. There is the treacherous derelict which occasionally accounts for posted as "missing, no trace." The hundred thousand ton iceberg which looms out of the fog too late—the sickening crash and crumpling bows of steel, the S.O.S., the fearful plunge, the indescribable, the cry of a gull, and—blank immensity.

Sunless days, cloudy nights, with a spell of dead reckoning and under estimated leeway, and many wind-jammers have nosed their way on to reefs out of the track of shipping. A gale comes on; the ship bumps off; some of the crew are not washed off the reef and endure agonies unutterable till death, or a God sent ship, heaves to and succours them.

Apart from perils due to man—faulty ships, insecure deck cargo, etc.—such as mentioned are some of the real dangers of the deep and faced by our sailor men.

Members of the Executive Committee are reminded that the meetings in connection with the Royal Naval House and the N.S.W. Branch of The Navy League are held at 3 p.m. and 3.30 p.m. respectively on the *second Monday* of each month.

WHOLLY SET UP AND PRINTED IN AUSTRALIA BY W. T. BURN AND CO., BRIDGE LANE, CIRCULAR QUAY SYDNEY.

THE NAVY LEAGUE.

"THE NAVY LEAGUE JOURNAL" (N.S.W.) is the property of the Navy League and is not controlled, nor in any way influenced by private capital.

Its mission is to go into the **homes** and **schools** of New South Wales and make known the gospel of "Keep Watch" and "Sacrifice and Service" as understood by the Navy League, and to invite thinking men and women and children to adopt that gospel in the interests of their country.

It is our wish that **healthy** criticisms and **constructive** suggestions in connection with the Journal will find their way from an ever increasing number of interested readers to the Editor.

Any profits that may accrue from the publication of "The Navy League Journal" will be **wholly** devoted to furthering the patriotic aims of the League. Our **advertisers** will thus see that quite apart from the question of the Journal's **value** as an **advertising** medium, they are assisting the nation to **insure** itself against possible aggression from without.

But one good turn deserves another, and every member of the League and every reader of these words is asked to extend **fullest** support to the **firms** whose advertisements appear in the pages of "The Navy League Journal."

JOIN THE NAVY LEAGUE TO-DAY.

To THE HON. SECRETARIES of
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Royal Naval House, Sydney.

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of the NAVY LEAGUE for which I enclose
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PV5—Fur Felt Hats, brims 2½ ins. with cut edges; a staple shape, correct in every detail. Colours are: Steel grey, dark gunmetal, grey, brown and fawn. Price, **25/-**

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