

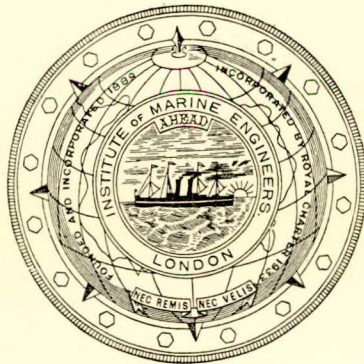
# THE INSTITUTE OF MARINE ENGINEERS

FOUNDED 1889

INCORPORATED BY ROYAL CHARTER 1933

PATRON : HER MAJESTY THE QUEEN

## TRANSACTIONS



Volume LXVI 1954



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<p>H. E. BEDFORD          H. J. WHEADON</p> <p>N. H. SWANCOAT          N. H. SWANCOAT }          A. N. SAVAGE }          J. K. W. MACVICAR }</p> <p>R. A. COLLACOTT, B.Sc., Ph.D.          A. J. MANN</p> <p>J. TURNBULL, O.B.E.          H. R. HUMPHREYS, O.B.E.          H. J. WHEADON          H. N. PEMBERTON</p> <p>S. A. SMITH, M.Sc.          P. MCKECHNIE          F. P. BELL</p> <p>J. CALDERWOOD, M.Sc.          S. A. SMITH, M.Sc.          T. D. SHILSTON</p> <p>R. M. WALLACE          J. CALDERWOOD, M.Sc.          J. ANDERSON          A. ROBERTSON, C.C.          J. ANDERSON          R. S. CADENHEAD</p>	<p>CHE/18/2 Metallic Finishes (Quality)          CHE/37 Boiler Water Tests          CHE/37/2 Methods of Sampling Waters Used in Steam Generation          CHE/37/3 Methods of Boiler Water Treatment</p> <p>ELE/1/10 Marine Motors and Generators          ELE/3/2 Ships' Cables          ELE/28 Electrical Fans          ELE/28/2 Methods of Measurement and Test of Fans</p> <p>INE/6 Pressure Gauges          INE/8 Revolution Indicators and Records          INE/6/2 Pressure Gauges (drafting)</p> <p>ISE/- Iron and Steel Industry Standards          ISE/6 Steel Castings          ISE/15 Iron and Steel for Shipbuilding          ISE/31 Wrought Steels          ISE/31/1 Gear Steels          ISE/31/2 Alloy Steels</p> <p>MEE/- Mechanical Engineering Industry Standards          MEE/6/19 Gear Hobbing Machines          MEE/11/4 Marine Flanges          MEE/12 Chains and Fittings          MEE/12/6 Anchor Cables          MEE/13 Engine Testing Fittings          MEE/17/7 Gears for Turbines and Similar Drives          MEE/21 Air Receivers          MEE/21/1 Solid Drawn Air Receivers          MEE/21/2 Riveted Air Receivers          MEE/21/3 Welded Steel Air Receivers          MEE/29 Pump Tests          MEE/32 Engineering Symbols and Abbreviations          MEE/34 Land Boilers          MEE/34/1 Cylindrical Boilers          MEE/34/2 Water Tube Boilers          MEE/34/3 Loco-type Boilers</p>	<p>J. ANDERSON          H. J. WHEADON          J. ANDERSON          P. MCKECHNIE          J. ANDERSON</p> <p>S. MATHEWS          J. K. W. MACVICAR          H. R. HUMPHREYS, O.B.E.          E. F. J. BAUGH          A. LOGAN, O.B.E.</p> <p>W. O. HAMILTON          J. CALDERWOOD, M.Sc.</p> <p>L. BAKER, D.S.C.          W. E. HOES          Lieut. Cdr. (E) A. P. MONK, D.S.C., R.N. (ret.)          Eng. Cdr. H. J. NICHOLSON, R.N. (ret.)</p> <p>A. C. HARDY, B.Sc.          R. W. CROMARTY          A. LOGAN, O.B.E.          T. D. SHILSTON</p> <p>J. L. CHALONER          R. MUNTON, B.Sc. }          J. CALDERWOOD, M.Sc. }</p> <p>R. COOK, M.Sc.</p> <p>J. STUART ROBINSON, M.A.          C. TAYLOR-COOK, B.Sc.</p>	<p>MEE/34/6 Boiler Mountings and Fittings          MEE/34/7 Boiler Accessories          MEE/34/8 Pipes and Piping          MEE/34/9 Boiler and Superheater Tubes          MEE/34/15 Corrugated Furnaces for Cylindrical Boilers</p> <p>MEE/36 Shaft Couplings          MEE/39 Compressor Tests and Definitions          MEE/43 Machine Tool Tests and Alignments          MEE/63 Ships' Side Scuttles and Frames          MEE/81 Valves for Gas, Water and Steam          MEE/81/3 General Purpose Valves          MEE/81/3/1 General Purpose Valves (drafting)          MEE/84 Ignition Equipment for Compression Ignition Engines</p> <p>MEE/88/3 Graphical Symbols for Generating Plant</p> <p>MEE/91 Jointing Materials and Compounds</p> <p>MEE/93 Lubricating Nipples Used for Grease Lubrication in Machinery and Vehicles</p> <p>MEE/102 Numbering of Cylinders on I.C. Engines          MEE/119 Plain Bearings          MEE/123 I.C. Engines for Stationary Purposes          MEE/131 Dished Ends for Tanks and Pressure Vessels</p> <p>PTC/2 Fuel Oils          PTC/5 Standard Marking of Valves, Flanges and Fittings</p> <p>SFE/- Solid Fuel Industry Standards Committee          SFE/1 Nomenclature and Definitions for Solid Fuel Burning Appliances</p> <p>UDC/269 Universal Decimal Classification Panel          USN/2/5 Part 5. Heat Engines</p>
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## The Institute of Marine Engineers Guild of Benevolence

### General Committee

*Chairman:* W. LYNN NELSON, O.B.E.  
*Vice-Presidents:* Eng. Capt. W. A. GRAHAM, O.B.E., R.N.R., J. C. LOWRIE.  
*Members of Council:* W. J. BROWN, F. D. CLARK, W. R. HARVEY.  
*Members of the Guild:* E. R. CHAMBERLAIN, B. C. CURLING, O.B.E., Eng. Cdr. H. J. NICHOLSON, R.N. (ret.), G. SPECK.  
*Hon. Treasurer:* A. ROBERTSON, C.C.

### Executive Committee

*Chairman:* W. LYNN NELSON, O.B.E.  
*Vice-Presidents:* Eng. Capt. W. A. GRAHAM, O.B.E., R.N.R., J. C. LOWRIE.  
*Members of Council:* W. J. BROWN, W. R. HARVEY.  
*Members of the Guild:* E. R. CHAMBERLAIN, B. C. CURLING, O.B.E., G. SPECK.  
*Secretary:* J. STUART ROBINSON, M.A.

# Annual Report of the Council for 1954

The Council, in presenting the Annual Report for 1954, would emphasize the following events and decisions which are of special importance and interest.

## SUPPLEMENTAL CHARTER

Her Majesty Queen Elizabeth II, Patron of the Institute, was graciously pleased to grant the Institute a Supplemental Charter on 30th August, the prime function of which was to authorize the Institute to acquire for the purposes of the Institute, property not exceeding in the whole the annual value of £60,000. Secondary matters were the removal of the definition of the classes of members and their initials from the Royal Charter to enable their inclusion in the By-Laws.

## BY-LAWS

The Privy Council's assent was received on 6th September 1954 to the adoption of new By-Laws in accordance with the resolution passed at the Annual General Meeting. It will be recalled that the major changes concerned the qualifications for membership, the new requirements for which were printed in the October issue of the *Supplement to the Transactions*. Many other minor alterations were made to remove ambiguities and various defects of a technical character.

## MEMBERSHIP

It is again possible to report that the net membership increase is greater than in any previous year. Although the total number of new elections is sixteen less than that of 1953, the loss by resignation, death and lapse is markedly lower. This makes the final net increase 736, which can be compared with satisfaction with the figure for 1953 of 590. The actual figures are given in the table on page 2. It is interesting to note that elections to the senior grades of membership, namely, Members, Associate Members, Companions and Associates, number 560 as compared with 580 last year, whereas the elections to the junior grades, namely, Graduates, Students and Probationer Students number 336 compared with 333 last year. From this negligible change it would seem that the sections have played as big a part as last year in bringing the work of the Institute to the knowledge of those who have not before been in active association. The alternative scheme for the training of sea-going engineers has also been largely instrumental in the maintenance of the rate of recruitment of junior members. It is also interesting to note from these figures that the relative increase between senior and junior members has remained practically constant in the ratio of approximately one-and-three-quarters to one.

## TRANSACTIONS

The Council has decided during the course of the year that it would be desirable to include in the *TRANSACTIONS* a number of the papers read before the Sections and furthermore to increase the coverage of the Abstracts by the inclusion of items relating to marine electrical engineering, radar and radio techniques, automatic pilot devices, cargo handling and new patents.

A better quality paper will be used beginning with the January 1955 issue and a redesigned cover will also appear for the first time on that occasion.

It is anticipated that members will have noted that with the February issue colour advertisements appeared in the *TRANSACTIONS*. These, together with additional space taken by a number of advertisers, has produced a most welcome and

useful additional income to an amount of £3,764 in excess of 1953.

Finally, the use of wrappers has been discontinued with the return to envelopes for the despatch of the *TRANSACTIONS*.

## SECTIONS

In the following areas new activities have been started as indicated.

### *Eastern Canada*

Continuing the policy of extending the sphere of active operation of the Institute considerable effort has been expended upon the inauguration of a centre of activity in Eastern Canada. To this end a Local Vice-Presidency has been created at Toronto, which city appears at the moment to have the most effective nucleus of members. Mr. T. M. Pallas has been elected the first Local Vice-President. A number of meetings have been held of an informal nature under Mr. Pallas's guidance and it is a matter of great encouragement to the Council to note this awakening interest in the Institute by Canadian members. As an encouragement to the recruitment of new members in Canada certain Canadian Certificates of Competency will be recognized for election to non-corporate grades of membership.

### *West of England*

As a result of the suggestion made by the Local Vice-President for Bristol, Mr. D. W. Gelling, a meeting took place on 18th November to inaugurate the West of England Section. As was reported in the December issue of the *TRANSACTIONS*, the meeting was a great success and the first paper will be read before the Section during the first few weeks of the New Year. It is anticipated from the interest already shown in this Section that it will be as successful as the others and will receive the same enthusiastic support.

### *Belfast*

At the suggestion of the Vice-President for Belfast, Mr. C. C. Pounder, a panel has been formed to care for the technical interests of the Belfast and Northern Ireland members. This panel will determine what papers might usefully be read in Belfast, bearing in mind the activities of other engineering associations. It is anticipated that these meetings will stimulate interest in the Institute.

### *Dublin*

Upon the request being received from several local members for some activities of the Institute in Dublin, a meeting was held on 5th November, at which Mr. A. G. Arnold read a paper on "Marine Diesel Engines". This meeting was a great success, being attended by over 100 members and visitors, and a further meeting is being arranged.

Full reports of the other Sections will be found later in the Report.

## JUNIOR SECTION

The Junior Section activities continue to command increasing support among younger members. Student lectures dealing with various items of marine machinery have been held monthly in the Institute Lecture Hall, and visits of inspection of ship and shore installations have been arranged at frequent intervals in addition to summer and winter social events.

In conclusion the Council feels certain that members, in examining the Institute's affairs will notice with pleasure and satisfaction the continuing progress of the Institute which may equally well be measured by the improvement in the financial position and the great increase in membership.

# Annual Report of the Council for 1954

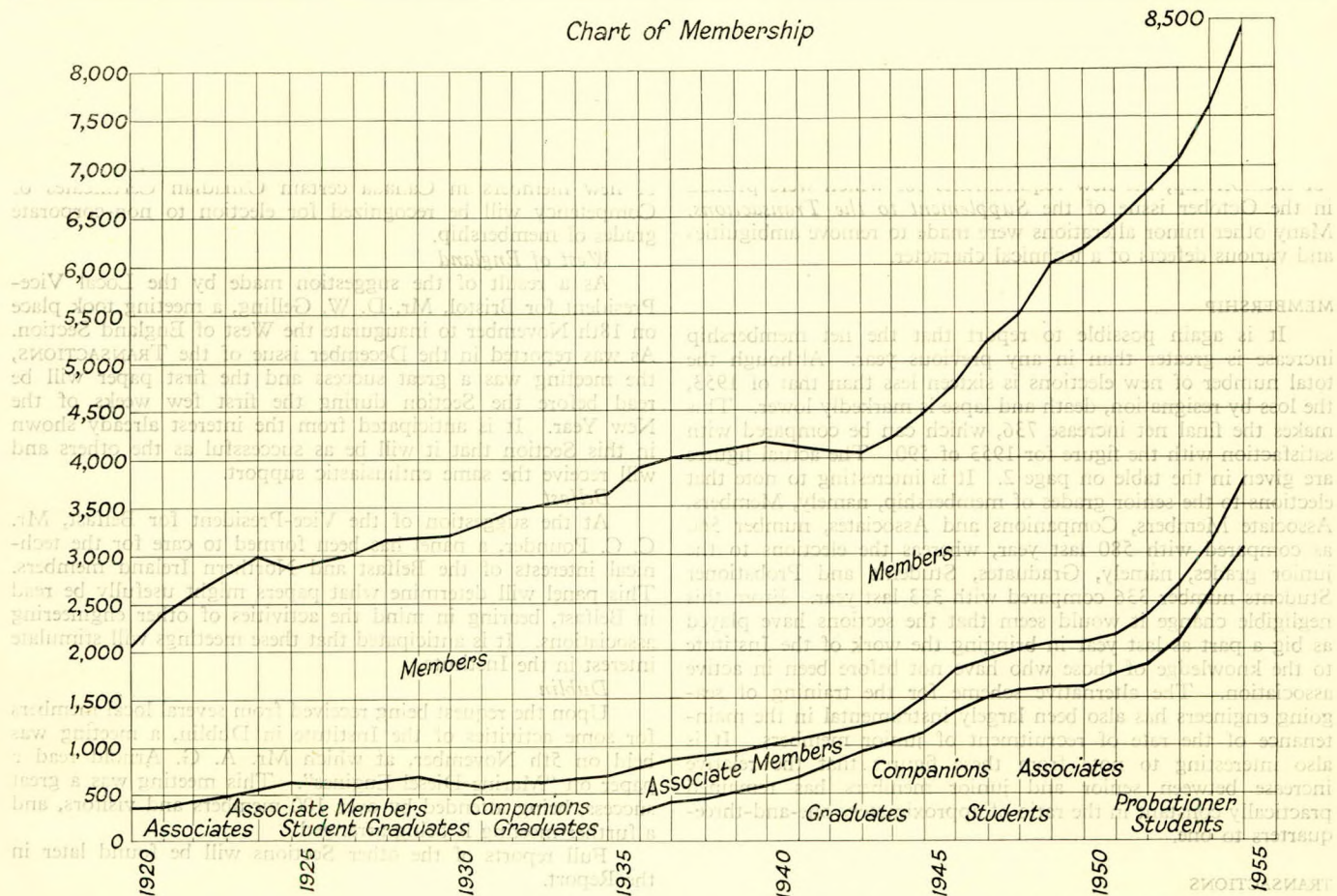
## SUMMARY OF THE YEAR'S ACTIVITIES

### MEMBERSHIP

The changes in membership are shown in the following table and chart:—

Grade	Total 31st Dec. 1953	Transfer		Elected	Died	Resigned	Lapsed	Total 31st Dec. 1954	Increase or decrease during 1954
		From	To						
Past Presidents	14			1	1			14	
Honorary Members	6			1				7	+ 1
Members	4,481		61	217	50	53	1	4,655	+174
Associate Members	578	15	57	79	5	8		686	+108
Companions	39	1		3				41	+ 2
Associates	1,841	76	10	261	5	14	2	2,015	+174
Graduates	172	31	8	41		7		183	+ 11
Students	194	13	14	88		7	3	273	+ 79
Probationer Students	360	14		207		5	1	547	+187
<b>Totals</b>	<b>7,685</b>	<b>150</b>	<b>150</b>	<b>898</b>	<b>61</b>	<b>94</b>	<b>7</b>	<b>8,421</b>	<b>+736</b>

Chart of Membership



### COUNCIL

At their meeting on 5th April 1954 the Council elected Mr. J. P. Campbell as Chairman of Council and Mr. W. J. Ferguson, M.Eng., as Vice-Chairman for the 1954/55 session. Mr. Stewart Hogg, the immediate past Chairman, remained on the Council for a further year as his period of office as Member of Council had not expired.

### LOCAL VICE-PRESIDENTS

The following appointments of Local Vice-Presidents to fill casual vacancies have been made by the Council:—

*Barrow-in-Furness:* Mr. F. P. Laurens, O.B.E., *vice* Cdr.(E) J. J. Hughes, R.N., upon his resignation.

*Bombay:* Mr. T. H. Barclay *vice* Mr. B. Hill, upon his resignation.

*Hongkong:* Mr. R. Woodward *vice* Mr. E. Ellison, upon his resignation.

*New York:* Mr. A. R. Gatewood, S.B., upon the death of Mr. J. H. King.

*Sydney:* Eng. Capt. G. I. D. Hutcheson, B.E., R.A.N.(ret.), upon the retirement of Mr. H. A. Garnett.

The Local Vice-Presidencies at the undermentioned places, which had been vacant temporarily, have now been filled as indicated:—

*Aberdeen:* Mr. A. C. West, B.Sc., Ph.D.

*Hartlepool:* Mr. S. H. Dunlop.



## Annual Report of the Council for 1954

*Middlesbrough:* Mr. E. T. Middleditch.

The Council has also created a new Local Vice-Presidency at Toronto, Canada, to which Mr. T. M. Pallas has been appointed.

### PAPERS READ AND DISCUSSED

<i>Date</i>	<i>Title</i>	<i>Author</i>
12th January	"The Manufacture of Crankshafts by the Continuous Grain Flow Process"	G. Cleghorn and I. H. Burnell
9th February	Symposium of Papers on "Some Interesting Ship and Machinery Defects, Their Investigation and Cure"	
	1. "Excessive Consumption of Lubricating Oil on Doxford Engine"	A. W. Davis, B.Sc. (Member)
	2. "Problems of a Geared Diesel Propulsion System"	D. W. Low, O.B.E. (Member)
	3. "Temporary Repair of a Cracked Diesel Engine Crankshaft"	A. R. Gatewood, S.B. (Member)
	4. "Repairs to the Fractured Cast Iron Cylinder of a Beam Air Pump"	
	5. "Temporary Repair of a Fractured Low Pressure Turbine Rotor"	
	6. "Repair of a Low Pressure Turbine Rotor"	
	7. "Thermal Straightening of Turbine Rotors"	
	8. "High Pressure Turbine Cylinder Casting Repair"	W. H. Falconer
	9. "Turbine Journals: Machining in Place in Wake of Carbon Packing"	E. Byrne, B.E.M.
	10. "An Improved Balancing Operation"	Cdr.(E) H. E. C. Hims, O.B.E., R.N.
	11. "Some Further Vibration Problems Relating to Ships and Their Associated Machinery"	T. W. Bunyan, B.Sc. (Member) and B. Hildrew, M. Sc. (Associate Member)
9th March	"Heat Exchangers for Internal Combustion Engines"	H. E. Upton, O.B.E. (Member)
13th April	"British Naval Gas Turbines"	Cdr.(E) G. F. A. Trewby, R.N. (Member)
27th April	"New Metals in Engineering"	L. B. Pfeil, O.B.E., D.Sc., F.R.S.
11th May	"The Free-piston Gas-generator Turbine as a Power Plant for Ship Propulsion"	F. A. I. Muntz, B.A., and R. Huber, Dipl.Ing.
12th October	"Some Fuel Injection Problems"	W. P. Mansfield, Ph.D.(Eng.)
9th November	"Some Operating Experience at 950 Degrees F."	L. Baker, D.S.C. (Vice-President), and W. H. Falconer (Associate)
14th December	"Fuel Features Related to Operating Experiences in Motorships Using Low Cost Fuel"	H. F. Jones, M.C., F.Inst.Pet., D. Royle, B. Sc. (Eng.), and R. G. Sayer, B.Sc. (Eng.) (Associate Member)

### PAPERS PUBLISHED

<i>Issue</i>	<i>Title</i>	<i>Author</i>
January	"The Resistance to Failure of Condenser and Heat Exchanger Tubes in Marine Service"	P. T. Gilbert, Ph.D., A.R.I.C., A.I.M.
February	"The Influence of Modern Refinery Technique on Marine Fuel Oil Quality"	C. W. G. Martin, F.R.I.C., F.Inst.Pet., M.Inst.F.
March	"The Manufacture of Crankshafts by the Continuous Grain Flow Process"	G. Cleghorn and I. H. Burnell
April	"Some Interesting Ship and Machinery Defects, Their Investigation and Cure". A Symposium of Short Papers.	
May	"Heat Exchangers for Internal Combustion Engines"	H. E. Upton, O.B.E. (Member)
June	"British Naval Gas Turbines"	Cdr.(E) G. F. A. Trewby, R.N. (Member)
July	"New Metals in Engineering"	L. B. Pfeil, O.B.E., D.Sc., F.R.S.
August	*"An Appraisal of Hydrofoil Supported Craft"	T. M. Buermann, Lt.-Cdr. P. Leehey, U.S.N., and Cdr. J. J. Stilwell, U.S.N.
September	"The Free-piston Gas-generator Turbine as a Power Plant for Ship Propulsion"	F. A. I. Muntz, B.A., and R. Huber, Dipl.Ing.
October	†"Marine Lubrication"	G. H. Clark (Member)
November	Presidential Address	H. A. J. Silley (Member)
	‡"Underwater Television"	Lt.-Cdr. J. N. Bathurst, O.B.E., D.S.C., R.C.N.
December	"Some Fuel Injection Problems"	W. P. Mansfield, Ph.D.(Eng.)
	§"Piston Rings, their Design, Functions and Manufacture"	W. A. Harrington

### PAPERS PUBLISHED IN THE SUPPLEMENT TO THE TRANSACTIONS

<i>Issue</i>	<i>Title</i>	<i>Author</i>
January	"Explosion from a Cast Iron Stop Valve Chest"	Official Report
February	"Some Interesting Machinery Breakdowns and Repairs"	
	1. Broken Low Pressure Guide Shoe	R. H. Whyte, B.E.M.
	2. Cold Air Refrigerating Machine Breakdown	R. H. Whyte, B.E.M.
	3. Feed Pump Repair	J. Hall
	4. Fracture in Combustion Chamber of Scotch Boiler	G. Harrold, M.B.E., M.I.Mech.E. (Member)
	5. Emergency Repairs to Diesel Generators after Salt Water Immersion	W. H. Colson, M.B.E.
March	1. Emergency Repairs to Evaporating Plant	Cdr.(E) A. B. Dickie, R.N.
	2. Soap and Soup	Anon.
April	1. A Quick Condenser Door Repair	Lieut.(E) L. Foster, R.N.V.R.

\* Reprinted from the Transactions of the Society of Naval Architects and Marine Engineers, New York.

† Read before the Scottish Section.

‡ Read before a Joint Meeting of the Institute of Marine Engineers and the Institution of Naval Architects.

§ Read before the Sydney Section.

## Annual Report of the Council for 1954

	2. Rotten Eggs and the Commander-in-Chief's Cap	Capt. (E) G. O. Naish, R.N.	27th October at Poplar Technical College. "Metallurgy in Marine Engineering", by J. E. Garside, Ph.D., M.Sc.(Tech.).
	3. Emergency Burning Operations	Lieut. - Cdr.(E) M. Martin, R.N.	4th November at Acton Technical College. "Gas Turbines", by J. C. Grey, B.Sc.
May	"The Basic Principles of Lubrication"—Report of a Junior Section Discussion		9th November at Falmouth Technical College. "Boilers", by W. G. Vigar (Member).
June	"Explosion from a Water Tube Boiler at South Essex Waterworks, Layer-de-la Haye, near Colchester, Essex	Official report	10th November at Plymouth Technical College. "Gas Turbines", by J. Hodge, M.A.
August	"The Application of Oxygen-Using Processes in Engineering	R. E. Doré (Associate Member)	15th November at South East London Technical College. "The Construction of a Ship", by G. Ridley Watson (Member).
September	*"Some Experiences of a Salvage Association Surveyor"	L. M. Scaife (Member)	15th November at Paddington Technical College. "Gas Turbines", by J. C. Barr, B.Sc.(Eng.).
October	†"Maintenance of Small Craft of Composite Construction"	F. W. Matthews, R.C.N.C.	30th November at Borough Polytechnic, S.E.1. "Boiler Water Treatment", by C. J. Hasler, B.Sc.
November and December	"The Steam Reciprocating Engine"	G. Yellowley, A.M.I. Mech.E. (Member)	2nd December at Kingston-on-Thames Technical College. "Marine Closed Feed Systems", by D. C. Hagen. 2nd December at South East London Technical College. "Air Conditioning of Ships", by J. K. W. MacVicar (Associate).

### JUNIOR SECTION ACTIVITIES

The following events have taken place during the year:—

- 18th January—"Turbines", by John Brown, B.Sc.
- 15th February—"Marine Feed Systems and Associated Auxiliaries", by H. Hillier, O.B.E. (Member).
- 22nd March—Film entitled "Lubrication", introduced by R. G. Sayer, B.Sc.(Eng.).
- 3rd April—Visit to r.m.s. *Loch Avon*.
- 10th April—Visit to m.s. *Rangitane*.
- 3rd May—"Marine Diesel Engines—Harland and Wolff Types", by C. C. Pounder (Vice-President).
- 8th May—Visit to British Electricity Authority Bankside "B" Power Station.
- 17th May—Films entitled "Power for Ships" and "Diesel Power on the River Thames".
- 22nd May—Visit to m.v. *Dominion Monarch*.
- 19th June—Visit to Tower Bridge.
- 3rd July—Port of London Dock Cruise followed by Social at the Institute.
- 18th October—"Watchkeeping and Sea-going Practice", by H. C. Gibson (Associate Member).
- 8th November—"The Doxford Engine", by J. A. Hardy.
- 6th December—"Steering Gear", by W. Spencer Paulin.
- 10th December—Film show at the Cinema of Babcock and Wilcox, Ltd.
- 18th December—Dinner and Dance at the Chez Auguste Restaurant.

### JUNIOR LECTURES.

The following lectures were arranged in addition to those reported by the individual Sections of the Institute:—

- 20th January at Borough Polytechnic, S.E.1. "Gas Turbines", by J. C. Barr, B.Sc.(Eng.).
- 22nd January at Wandsworth Technical College. "Boiler Water Treatment", by C. J. Hasler, B.Sc.
- 3rd February at Gravesend Technical College. "Gas Turbines", by J. Hodge, M.A.
- 10th February at Southend Municipal College. "Photoelasticity", by J. Ward, Ph.D., B.Sc. (Member).
- 24th March at South East Essex Technical College. "Gas Turbines", by J. C. Grey, B.Sc., A.I.Lg.
- 21st October at West Ham College of Technology. "Marine Diesel Engines", by A. G. Arnold (Member).

\* An amended and revised extract from a paper read before the Southern Joint Branch of the Institute of Naval Architects and the Institute of Marine Engineers.

† Read before a meeting of the Southern Joint Branch of the Institution of Naval Architects and the Institute of Marine Engineers.

### EDUCATION GROUP

An offer has been received and accepted for two scholarships at the School of Gas Turbine Technology, Farnborough.

The Annual General Meeting of the Group was held on Friday, 19th March 1954.

### INSTITUTE AWARDS

*The Denny Gold Medal* has been awarded to L. Baker, D.S.C. (Vice-President), and W. H. Falconer (Associate) for their paper "Some Operating Experience at 950 Degrees F."

*The Institute Silver Medal* has been awarded to F. A. I. Muntz, B.A., and R. Huber, Dipl.Ing., for their paper "The Free-piston Gas-generator Turbine as a Power Plant for Ship Propulsion".

*The W. W. Marriner Memorial Prize*, value £5, for the best Engineering Knowledge script written by a candidate in the Ministry of Transport and Civil Aviation's examination for the Second Class Engineer's Certificate of Competency, has been awarded, on the recommendation of the Chief Examiner of Engineers to D. S. Aris.

*Extra First Class Engineer's Certificate Examination—Institute Award.* The Institute medal for the candidate obtaining the highest marks for the examination in 1954 has been awarded to D. J. Fowler (Associate Member).

*Essay Competition Award.* The sum of £12 10s. from the Denny, Stephen and Inverforth Award Fund has been awarded to F. A. Powell (Associate) for his essay "Ship Repairing".

### *Institute Prizes for the Study of Heat Engines*

The Institute's Annual Prizes, value two guineas each, for students at technical colleges and schools in marine centres who accomplish the best year's work in heat engines, were awarded as follows:—

- G. Hume, Birkenhead Technical College.
- B. C. Fretwell, Cardiff College of Technology and Commerce.
- J. L. Hewison, City of Portsmouth College of Technology.
- J. Harris, Cornwall Technical College.
- P. J. Coyle, College of Technology, Belfast.
- G. B. Coull, Dundee Technical College.
- I. W. Binning, Hull Municipal Technical College.
- M. Kalisperas, The Polytechnic, Regent Street, W.1.
- P. H. Andrews, Poplar Technical College.
- J. W. Crighton, Robert Gordon's Technical College, Aberdeen.
- H. M. Osborne, Royal Technical College, Glasgow.
- P. C. Raymond, Rutherford College of Technology.
- S. A. Haseeb, Southampton Technical College.
- J. E. Atkinson, South-West Essex Technical College and School of Art.

## Annual Report of the Council for 1954

R. Penman, Sunderland Technical College.  
J. D. Brunt, Swansea Technical College.  
W. Robertson, Watt Memorial School, Greenock.  
R. G. Bricknell, West Ham College of Technology.  
R. D. Gibbs, Woolwich Polytechnic.  
E. R. Gowers, South East London Technical College.  
Miss J. P. Thomas, Liverpool Technical College.  
J. D'Amato, Plymouth and Devonport Technical College.  
C. Ledger, Gateshead Technical College.  
A. E. Corbett, Constantine Technical College, Middlesbrough.

*Institute awards (value two and three guineas each respectively) for the best first year and the best second year students taking the Ordinary National Diploma Course under the alternative scheme for the training of sea-going engineers were awarded as follows:—*

R. E. Shields (first year) and G. L. Markin (second year), Acton Technical College.  
A. S. M. Scott (first year) and N. H. McConochie (second year), Birkenhead Technical College.  
B. E. French and P. A. Gosling (first year) and G. J. Hawkesley (second year), Bolton Technical College.  
B. G. Stead and J. G. Curzons (first year) and J. E. Barnes (second year), Cardiff College of Technology and Commerce.  
R. T. H. Hayton (first year) and J. C. Clutterbuck (second year), Gateshead Technical College.  
D. M. Tree (first year) and W. Siddle (second year), Hull Municipal Technical College.  
R. A. A. Gibbons and R. Paveley (first year) and K. N. Bexon (second year), Kingston on Thames Technical College.  
P. R. White (first year) and J. Leak (second year), Constantine Technical College, Middlesbrough.  
P. J. Pope and C. R. Meyer (first year) and J. V. James (second year), Poplar Technical College.  
D. Keith (first year), Portsmouth Municipal Technical College.  
R. H. Chadburn (first year) and J. C. Anders and R. T. Fairclough (second year), Riversdale Technical College, Liverpool.  
R. C. F. Thomas (first year) and J. O. Coloron (second year), South East London Technical College.  
W. D. Cherry (first year) and R. W. Finlay (second year), Stow College of Engineering.  
G. J. Oxenbury (first year) and M. T. Best (second year), Swansea Technical College.  
D. P. O'Leary (first year) and P. J. Everett (second year), Wandsworth Technical College.

*Thames Nautical Training College—H.M.S. Worcester*

The Institute's annual prize, value two guineas, for excellence in marine engineering, was awarded to Cadet R. I. Cape.

### INSTITUTE EXAMINATIONS

*Associate Membership Examination.* Twenty-one candidates entered for the examination. B. M. Clark and P. C. Bhattacharjee completed the requirements for Associate Membership; C. P. S. Kakra, M. N. de la Harpe and H. A. Andrews passed Section A.

*Common Preliminary Examination.* All Students elected during the year were admitted by exemption.

*National Certificates and Diplomas in Mechanical Engineering.* The following have been issued and signed by the President during 1954: Ordinary National Certificates 721; Endorsements 43; Higher National Certificates 233; Endorsements 25; Ordinary National Diplomas 16; Ordinary National Diploma—Alternative Entry for Sea-going Engineers 179; Higher National Diplomas 16.

### INSTITUTE PUBLICATIONS

There has been an increased demand for two of the Institute's publications, namely, "Electricity Applied to Marine

Engineering" and "Naval Architecture and Ship Construction", while the third publication, "Running and Maintenance of Marine Machinery", as mentioned in the last Annual Report, is out of print but it is hoped that the revised edition will be available shortly.

Mr. B. C. Curling, O.B.E. (Honorary Member), who, upon his retirement from the Secretaryship of the Institute, was commissioned to write a History of the Institute, has now completed this work, but the manuscript has not yet been placed in the hands of the printers.

Two new booklets have been published during the year. One deals with the Institute, giving details of its formation, activities and requirements for membership, and the other, written by Mr. Stewart Hogg (Member of Council) is entitled "Some Notes on Marine Engineering as a Career". There has been a very considerable demand for both these booklets.

### HONOURS

The Council offer an apology (for omitting to report last year) and its congratulations to Rear-Admiral Robert Cobb (Member) who was promoted to Commander of the Order of the British Empire in the Coronation Honours.

The Council also congratulates the following members upon whom Her Majesty Queen Elizabeth II conferred honours during the year:—

Knight Bachelor—Donald F. Anderson (Companion).  
Knight Commander of the Order of the Bath—V. G. Shephard (Member).  
Commander of the Order of the British Empire—  
F. J. Colvill (Member of Council).  
B. P. Ingamells (Member of Council).  
Eng. Capt. G. Villar, R.N.(ret.) (Member).  
Officer of the Order of the British Empire—W. H. Purdie (Member).  
Member of the Order of the British Empire—Lieut.(E)  
E. C. Webb, R.N. (Member).

### DEATHS

Amongst the losses by death recorded throughout the year were those of the following who will be remembered particularly for their services to the Institute:—

His Grace The Duke of Montrose, K.T., C.B., C.V.O.  
(Past President).  
A. E. Crighton (Honorary Vice-President).  
John Clark (former Member of Council).  
A. E. Garratt, O.B.E. (former Member of Council).

### REMEMBRANCE DAY

The Institute was represented by Mr. J. P. Campbell, Chairman of Council, at the service in Westminster Abbey on Sunday, 7th November 1954, and Mr. Stewart Hogg, immediate past Chairman of Council, laid a wreath on the Mercantile Marine War Memorial, Tower Hill, London, E.C.3.

### STAFF

The Council records with much regret the untimely death on 19th March of Miss O. T. Wood.

The following alterations in the staff have taken place during the year:—

Resigned: Miss D. Stafford.  
Engaged: Miss B. Almeroth.

### SOCIAL EVENTS

The following functions have been held:—

Annual Dinner, at Grosvenor House, London, W.1, on 12th March.  
Summer Golf Meeting, at Hadley Wood Golf Club, on 27th May.  
Autumn Golf Meeting, at Hadley Wood Golf Club, on 29th September.  
Annual Conversazione, at Grosvenor House, London, W.1, on 4th December.

J. P. CAMPBELL (*Chairman of Council*)

J. STUART ROBINSON (*Secretary*)

## THE NATIONAL WAR MEMORIAL BUILDING: OUR NEW HEADQUARTERS

### Report by the Honorary Treasurer and Chairman of the Building Committee

After many months of negotiation to obtain a lease of the site at 56/59, Fenchurch Street, we started the year (1954) full of hope that progress with the building would quickly proceed.

On the 16th January 1954, we received a building licence to proceed with work to the value of £400,000, the Home Office at the time asking us to see that a Grade A Shelter was provided in the basement. This involved constructing the floor and all the walls surrounding the basement of 2 feet thick reinforced concrete. Obviously our Council could hardly do otherwise than acquiesce though it meant additional building costs.

Quickly the City Corporation got to work to clear the site of debris and materials which had been used to level the site after the bombing and fire which took place on the 10th May 1941. Immediately afterwards, in March 1954, we had men on the site sinking boreholes to discover the condition of the subsoil for the foundations and loading.

Three holes were sunk and a strong layer of ballast was found, varying from 8 feet to 17 feet thick. Blue clay was reached at depth of 35 to 45 feet. It had been discovered that there had been a sub-basement over the greater part of the site and that the basement in places ran under London Street and Fenchurch Street. On our architects' advice we concluded it would be advisable to incorporate a sub-basement over the whole of the site, which our agents, Messrs. Jones, Lang, Wootton and Sons, assured us could be let to bring in revenue, rather than fill in the area at great expense and get nothing for it. This unforeseen discovery is adding to the cost of the building but the income from the lettings will more than meet the interest on the additional capital cost.

It was at the end of 1953 when our solicitors advised us that under our then existing Charter they questioned our legal position in entering into a lease with the City Corporation for such a property, as the Charter limited us to a value of £20,000. Accordingly it was decided to apply for a supplemental Charter whereby this figure was raised to £60,000. Negotiations took place with the Privy Council resulting in the supplemental Charter being granted in August 1954.

Our architects, Messrs. Ronald Ward and Partners, were anxious from the beginning to use materials for the facing of the elevation which, while perfectly sound, lasting, and of good architectural appearance would be more economical in saving some thousands in construction. The material proposed to be used was Mineralite, a Norwegian product, which had been in use in Norway for the last thirty years. Our then Chairman of Council, Mr. Stewart Hogg, Mr. Ronald Ward, and I went to Norway to investigate the use of Mineralite and came back perfectly satisfied. We were able to persuade the City Corporation to allow us to use it, but unfortunately the London County Council stepped in and negated our proposals and forced us to use natural Portland stone for the greater part of all of our elevations.

It was August 1954 before our architects' plans were known as having been passed by the City Corporation and approved by the L.C.C. although it was not until 30th September that the L.C.C. finally notified our architects of

approval, after having been passed by the various departments, such as the Fire Department, the Petroleum Officer to the City Corporation, the L.C.C. re restriction of ribbon development, etc. After the 30th September our architects had to notify all owners of property, lessees and tenants within a radius of fifty yards of our intention to erect a building higher than that allowed by the London Building Acts to enable anyone to raise an objection if they considered their day-lighting infringed on the grounds of Ancient Lights under Common Law. No objection was pressed at the time but a little later when the City Solicitors were preparing the lease, an old agreement was discovered which necessitated the setting back of the Fenchurch Street elevation by about 2 feet above the fifth floor, and the rearrangement of the staircase giving access to the offices above this level. This meant the resubmission of plans to the City Corporation and the L.C.C., but I am glad to be able to report that the Building Agreement and Form of Lease were duly signed and sealed by both parties and exchanged on the afternoon of 17th February 1955.

It may interest members to have the architects' description of the materials which have been agreed with the L.C.C. and the City Corporation for the elevations.

Fenchurch Street elevation  
Natural Portland stone.  
Polished golden quartzite to ground and first storey window surrounds.  
Green quartzite to panels between ground and first floor.

Mark Lane elevation  
Ground and first storey feature light grey granite.  
Natural Portland stone elsewhere.

London Street elevation  
As Mark Lane.

Railway Place  
Ground and first storey feature light grey granite.  
Above third floor, silver-grey bricks to be used between window heads and cills.  
Mullions to be faced with faience.  
Remainder natural Portland stone.

Northern elevation of tower  
As Railway Place, excepting that faience is to be used as facing to external wall of main staircase to offices.  
Plinths of all elevations in black granite.  
All the panels on the south and north sections of the tower will have continuous vertical mullions faced with faience, with panels below windows of brick-work, as specified.

The contract for the foundations, retaining walls and all reinforced concrete structures from sub-basement level to roof, has been placed with Twistee Reinforcement, Ltd., dating from 7th March 1955, to be completed in eighteen months from that date. Naturally the remainder of the building work will be proceeding at the same time, and it is anticipated that the general building contract will be signed about September.

# Annual Report of the Council for 1954

## STATEMENT BY AUDITORS

14th March 1955

To the Members,

THE INSTITUTE OF MARINE ENGINEERS,  
85/88, THE MINORIES, E.C.3

Gentlemen,

We have to report that we have examined and checked the Accounts of your Institute for the year ended 31st December 1954, and we set out our observations below.

(1) The Revenue Account shows a surplus of £3,889 as compared with £3,163 last year, an increase of £726.

(2) The Gross Revenue was £22,977, an increase of £979 made up as follows:—

	Decrease	Increase
Subscriptions ... ..	—	884
Entrance Fees ... ..	—	9
Examination Fees ... ..	6	—
Reprints of Papers ... ..	—	45
Hire of Hall and Library ... ..	31	—
Guild of Benevolence ... ..	—	9
Interest on Investments ... ..	—	69
	£37	£1,016
<i>Deduct: Decreases</i> ... ..	...	37
		£979

(3) Expenditure charged to Revenue Account was £19,088, an increase of £253, made up as follows:—

	Decrease	Increase
General Expenses ... ..	—	1,336
Rent, Rates, etc. ... ..	—	14
House Expenses ... ..	—	25
Repairs ... ..	186	—
Insurance ... ..	7	—
Transactions ... ..	902	—
Depreciation of Furniture ... ..	16	—
Prizes ... ..	—	58
Local Branch Expenses... ..	69	—
	£1,180	£1,433
<i>Deduct: Decreases</i> ... ..	...	1,180
		£253

(4) The Increase in the Surplus is arrived at as shown below:—

Increase in Revenue ... ..	£979
<i>Less: Increase in Expenditure</i> ... ..	253
	£726

(5) Transactions

The new policy of handling the advertisements in the Transactions with the Institute's own staff has, since its inception in 1952, had the effect of reducing the net cost of producing the Transactions from £3,706 in 1951 to £25 in 1954.

(6) Sales of Handbooks

The following profits have been made during the year:—

“Electricity Applied to Marine Engineering” ... ..	£355
“Naval Architecture and Ship Construction” ... ..	341

The third handbook, “Running and Maintenance of Marine Machinery”, has been out of print, but a fresh edition is in course of production and sales will be resumed in 1955.

(7) Investments

£1,000 3% National Defence Loan 1954/58 has been redeemed during the year. The proceeds have been placed on Deposit with the Institute's bankers, the balance on this account having been increased to £12,000.

(8) National War Memorial Building Fund

The total receipts of this Fund amount of £119,440, including £2,500 from the Social Events Account not actually received until 1955. Now that building operations have commenced, we have set out the account so as to show the total building expenditure to date as a cumulative asset. The investments, which remain unchanged, have appreciated during the year by £4,488 and had a market value at 31st December 1954, of £64,659. Recent receipts have been placed on Deposit Account as being more readily available for meeting further building costs.

(9) We have verified the Investments, Bank Balances, Insurance Policies and Title Deeds by means of banker's certificates and we have obtained all the information we have required. In our opinion, the Balance Sheet of your Institute has been properly drawn up so as to exhibit a true and correct view of the Institute's affairs according to the information and explanations given to us, and as shown by the books of the Institute.

Yours faithfully,

WEST AND DRAKE,

*Chartered Accountants.*

Sardinia House,  
52, Lincoln's Inn Fields,  
London, W.C.2

## BALANCE SHEET, 31st DECEMBER 1954

1953 £		£ s. d.	£ s. d.	1953 £		£ s. d.	£ s. d.
1,599	<b>Sundry Creditors</b> ... ..		6,621 15 7		<b>Cash at Bank and in Hand</b>		
3,431	<b>Unexpired Subscriptions</b> ... ..		2,104 18 7	3,540	Current Account ... ..	4,132 16 0	
	<b>Denny Gold Medal</b>			4,000	Deposit Account ... ..	12,000 0 0	
250	Capital Fund ... ..	250 0 0		1,188	Social Events Account ... ..	2,602 0 9	
66	Accumulated Income ... ..	67 2 7		4	Social Events Account, Junior Section ... ..	—	
10	Interest at 4% per annum ... ..	10 0 0		204	Post Office Savings Bank Account ... ..	209 3 4	
76		77 2 7		1,086	London Trustee Savings Bank Account ... ..	1,114 15 2	
9		7 12 0		100	In Hand ... ..	70 7 11	
67	<i>Less: Reserve for Award</i> ... ..	7 12 0		10,122		20,129 3 2	
317		69 10 7			<b>Sundry Debtors</b>		
	<b>Denny Award (£100)</b>		319 10 7	1,737	For Advertisements ... ..	2,769 12 6	
100	Capital Fund as at 31st December, 1953 ... ..		100 0 0	658	Sundries ... ..	821 9 4	
	<b>Stephen Legacy (£100)</b>			687	Payments in Advance ... ..	1,050 14 1	
100	Capital Fund as at 31st December, 1953 ... ..		100 0 0	3,082		4,641 15 11	
	<b>John I. Jacobs Award (£200)</b>				<b>Investments—</b>		
119	Capital Fund as at 31st December, 1953 ... ..		119 0 0		<b>At Cost less Bonus</b>		
	<b>D. F. Robertson Award (£100)</b>				£2,500 3½% War Loan ... ..	2,570 14 6	
100	Capital Fund as at 31st December, 1953 ... ..		100 0 0		<b>At Cost</b>		
	<b>Murdoch Legacy (£100)</b>				£10,700 3½% War Loan ... ..	10,065 2 10	
62	Capital Fund as at 31st December, 1953 ... ..		62 0 0		£2,500 3½% Conversion Loan ... ..	2,668 0 0	
	<b>Lord Inverforth Award (£100)</b>				£1,000 3% Defence Bonds ... ..	1,000 0 0	
100	Capital Fund as at 31st December, 1953 ... ..		100 0 0		£1,834 3% Savings Bonds "A" 1955/65 ... ..	1,816 14 0	
	<b>Akroyd Stuart Award (£700)</b>				£1,000 3% Savings Bonds "B" 1955/65 ... ..	1,000 0 0	
700	Capital Fund ... ..	700 0 0			£9,000 3% Savings Bonds 1960/70 ... ..	9,000 0 0	
206	Accumulated Income ... ..	188 3 11			£5,500 3% Savings Bonds 1965/75 ... ..	4,705 3 3	
32	Interest on Investment ... ..	32 0 6			£800 3% Treasury Stock ... ..	703 17 0	
238		220 4 5		40,937	£6,000 British Transport 3% Guaranteed Stock 1978/88 ... ..	5,917 14 6	
50	<i>(Less: Award)</i> ... ..	—			£500 Australia 3¼% Registered Stock 1956/61 ... ..	491 6 0	
188		220 4 5				39,938 12 1	
888		920 4 5			(Market Value at 31st December, 1954, £37,739).		
	<b>W. W. Marriner Prize (£166)</b>				<b>Investments (Awards)</b>		
166	Capital Fund ... ..	166 0 0			Akroyd Stuart Award		
4	Accumulated Income ... ..	3 14 5			£915 3½% Conversion Loan at cost ... ..	698 4 11	
5	Interest on Investment ... ..	5 0 0			John I. Jacobs Award		
9		8 14 5			£200 2½% Consols as valued at 31st January, 1919 ... ..	119 0 0	
5	<i>Less: Award</i> ... ..	5 0 0			Lord Inverforth Award		
4		3 14 5			£100 3½% War Loan at par ... ..	100 0 0	
170		169 14 5			W. W. Marriner Prize		
	<b>Adam Girdwood Award</b>				£166 3% Savings Bonds "A" 1955/65 at cost ... ..	166 0 0	
15	Capital Fund ... ..	15 0 0		1,098	Adam Girdwood Award		
1	Accumulated Income ... ..	1 8 6			Uninvested Cash ... ..	15 0 0	
1	Interest ... ..	15 0 0		14,650		1,098 4 11	
16		2 3 6			<b>City Premises at Cost</b> ... ..	14,650 0 5	
	<b>Awards Combined Income Account—Sir A. Denny, J. Stephen and Lord Inverforth</b>		17 3 6		<b>City Premises Redemption Policies</b>		
37	Balance at 31st December, 1953 ... ..	35 9 3			Single Premiums to:—		
11	<i>Add: Combined Interest for the year</i> ... ..	11 0 0			Royal Exchange Assurance Company		
48		46 9 3			to secure the payment on		
13	<i>Less: Awards</i> ... ..	12 10 0			1st November, 2011 of ... ..	£10,000 *	
35		33 19 3			10th June, 2012 of ... ..	£2,000 †	
		33 19 3			10th June, 2012 of ... ..	£1,000 †	
		33 19 3			10th June, 2012 of ... ..	£1,000 †	
		33 19 3			10th June, 2012 of ... ..	£1,000 †	
		33 19 3			10th June, 2012 of ... ..	£5,000 **	

		<b>Awards Combined Income Account—John I. Jacobs, W. Murdoch and D. F. Robertson</b>			
50		Balance at 31st December, 1953	... ..	61 13 3	
12		Add: Combined Interest for the year	... ..	11 10 0	
<u>62</u>					73 3 3
		<b>“Running and Maintenance of Marine Machinery”</b>			
1,389		Balance at 31st December, 1953	... ..	1,521 11 3	
133		Add: Profit on Sales during the year	... ..	—	
<u>1,522</u>					1,521 11 3
		<b>“Electricity Applied to Marine Engineering”</b>			
672		Balance at 31st December, 1953	... ..	960 10 2	
289		Add: Profit on Sales during the year	... ..	354 12 6	
<u>961</u>					1,315 2 8
		<b>“Naval Architecture and Ship Construction”</b>			
1,051		Balance at 31st December, 1953	... ..	1,323 19 5	
273		Add: Profit on Sales during the year	... ..	341 8 0	
<u>1,324</u>					1,665 7 5
1,188		<b>Social Events Account</b>	... ..	102 0 9	1,950
		(Social Events Account—Junior Section)	... ..	—	889
<u>4</u>					2,839
<u>1,192</u>				102 0 9	283
12,000		<b>Reserve for Renewal of Premises</b>	... ..	15,000 0 0	2,556
1,086		<b>Pension Fund</b>	... ..	1,955 2 4	302
		<b>Capital Account</b>			
46,346		Balance at 31st December, 1953	... ..	49,646 15 9	—
138		Add: Life Subscriptions received during year	... ..	267 5 0	946
		Profit on Redemption of Investment	... ..	1 3 0	711
3,163		Balance of Revenue Account for the year ended 31st December, 1954	... ..	3,889 3 0	1,657
<u>49,647</u>				53,804 6 9	427
					2,084
					£74,831
					£74,831

Canada Life Assurance Com- pany to secure the payment on 10th June, 2012 of	... ..	£1,000
Atlas Assurance Company to secure the payment on 10th June, 2012 of	... ..	£1,000 †
Sun Life Assurance Society to secure the payment on 10th June, 2012 of	... ..	£1,000 ‡
		<u>£23,000</u>

\*\*Premiums paid out of Revenue  
\* Premiums paid out of Capital  
† Premiums paid out of Life Subscriptions  
‡ Premiums paid partly out of Revenue and  
partly out of Life Subscriptions  
(The present surrender value of the above  
Policies is £3,580)

<b>Furniture at Cost, less Depreciation</b>					
Balance at 31st December, 1953	... ..	2,556 0 0			
Additions during the year	... ..	110 13 6			
		<u>2,666 13 6</u>			
Less: Depreciation	... ..	266 13 6			
					2,400 0 0
					302 2 0
<b>Books in Library at Cost</b>					
<b>Stocks on Hand—Publications</b>					
“Running and Maintenance of Marine Machinery”	... ..	—			
“Electricity Applied to Marine Engineering”	... ..	492 0 0			
“Naval Architecture and Ship Construction”	... ..	363 0 0			
		<u>855 0 0</u>			
Paper for Transactions	... ..	2,190 2 3			
					3,045 2 3
					<u>£86,205 0 9</u>

Table showing extracted items of the Accounts on a comparative basis over ten years.

	1945		1946		1947		1948		1949		1950		1951		1952		1953		1954	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Receipts from Subscriptions	7,872	1 1	8,379	4 3	8,876	1 10	11,639	4 0	12,829	0 3	13,261	17 10	14,186	11 4	17,495	3 5	19,192	7 8	20,114	3 1
Entrance Fees	591	5 0	759	10 0	725	4 6	828	1 11	698	15 0	685	15 0	731	11 0	703	0 0	935	5 0	943	15 0
Advertisements	2,006	15 10	2,918	18 5	2,966	15 7	3,839	17 10	4,891	7 7	5,327	2 4	5,598	16 11	8,870	0 8	10,054	5 0	13,818	13 3
Total Income	11,436	6 4	13,133	11 8	13,694	17 8	17,453	19 3	19,748	19 6	20,921	19 11	22,040	17 4	28,633	10 11	33,375	1 4	37,977	12 4
General Ex. A/c.	4,273	8 7	4,940	0 5	6,390	15 7	7,242	16 5	7,340	13 10	8,025	9 9	8,864	18 2	8,650	18 1	10,685	13 11	12,021	11 9
Rent, Rates and Taxes	551	13 3	522	15 10	650	1 3	686	2 4	746	7 2	740	6 6	776	4 1	810	19 3	890	18 10	905	7 11
House A/c.	719	11 1	960	9 8	977	14 9	943	6 6	1,166	6 9	1,593	14 9	1,520	12 11	1,605	9 2	1,610	17 11	1,635	11 11
Repairs and Redecorations	236	11 11	5	11 1	80	11 1	63	4 1	834	9 5	724	17 1	78	9 11	518	9 7	290	9 3	105	7 1
Transactions	2,702	19 8	4,176	14 9	4,632	12 3	6,042	0 3	6,207	1 9	8,812	12 8	9,273	3 2	11,397	0 1	12,304	8 11	15,025	15 10
Sundry Creditors	902	3 10	1,300	9 3	1,119	5 1	1,267	2 11	1,898	4 2	1,148	14 11	1,375	0 7	3,545	8 11	1,599	10 3	6,621	15 7
Capital A/c.	36,675	9 0	37,859	5 10	38,533	9 8	38,884	1 4	40,785	19 3	42,200	6 5	44,646	5 10	46,345	16 11	49,646	15 9	53,804	6 9
Reserve for Renewal of Premises	4,000	0 0	5,000	0 0	5,000	0 0	6,000	0 3	7,000	0 0	7,000	0 0	7,000	0 0	9,000	0 0	12,000	0 0	15,000	0 0
Balance on Revenue A/c.	1,553	2 0	1,183	16 10	584	1 4	478	16 0	1,901	17 11	427	7 2	986	5 5	2,945	17 1	3,162	15 13	3,889	3 0

## REVENUE ACCOUNT Year ended 31st December, 1954

1953 £	General Expenses	£ s. d.	£ s. d.	1953 £	Subscriptions	£ s. d.	£ s. d.	£ s. d.
					Received	Unexpired	Net	
4	Cheque Books ... ..	5 0 0			Members ... ..	15,239 9 9	1,156 13 3	14,082 16 6
716	Postage and Telegrams ... ..	806 9 6		13,690	Associate Members ... ..	1,891 3 6	295 13 5	1,595 10 1
26	Engrossing Certificates ... ..	26 12 6			Associates ... ..	4,401 7 9	495 16 11	3,905 10 10
	Examination Expenses:—			3,573	Graduates ... ..	240 6 6	78 3 0	162 3 6
35	Common Preliminary Examination ... ..	42 11 3		201	Students ... ..	214 4 6	41 16 0	172 8 6
250	Associate Membership ... ..	267 8 9		111	Probationer Students ... ..	97 10 2	—	97 10 2
35	Junior Lecture Expenses ... ..	98 6 4		38	Companions ... ..	104 9 6	6 6 0	98 3 6
1,651	Stationery and General Printing ... ..	1,824 10 2		135				
	Staff Salaries, National Insurance and							
6,163	Clerical Assistance ... ..	6,500 18 1		19,230		22,188 11 8	2,074 8 7	20,114 3 1
150	Audit Fee ... ..	150 0 0						
	Professional Fees ... ..	312 14 4						
215	Telephones ... ..	271 16 6		935	Entrance Fees ... ..			943 15 0
28	Affiliation Subscriptions and Contributions				Examination Fees ... ..			27 4 0
	to Institutions for Research ... ..	30 14 6		33	Profits from Reprints of Papers, etc.			
601	Sundries ... ..	972 8 6			Sales ... ..		445 16 11	
387	Staff Pension Insurance ... ..	287 1 4		110	Less: Cost of reprinting ... ..		393 0 1	62 16 10
425	Superannuation ... ..	425 0 0	12,021 11 9	92	Hire of Hall and Library ... ..			88 15 0
10,686				18	The Guild of Benevolence			
	<b>Rent, Rates, Light and Heat</b>			120	For Office Facilities and Clerical Assistance			192 2 3
118	Ground Rent ... ..	118 0 6			Interest on Investments			
576	Rates ... ..	576 3 10			3½% War Loan ... ..	462 0 0		
146	Gas and Electricity ... ..	161 5 6			3½% Conversion Loan ... ..	87 10 0		
51	Water ... ..	49 18 1	905 7 11		3% National Defence Loan ... ..	34 0 6		
891					3% Defence Bonds ... ..	30 0 0		
	<b>House Expenses</b>			462	3% Savings Bonds 1955/65 ... ..	85 0 0		
711	Staff Wages and National Insurance ... ..	666 0 11			3% Savings Bonds 1960/70 ... ..	270 0 0		
183	Coal ... ..	204 5 3		88	3% Savings Bonds 1965/75 ... ..	165 0 0		
511	Window and General Cleaning ... ..	515 0 0		30	3% Treasury Stock ... ..	24 0 0		
206	Sundries ... ..	250 5 9	1,635 11 11	74	Australia 3½% Registered Stock ... ..	16 5 0		
1,611				85	British Transport 3% Stock 1978/88 ... ..	180 0 0		
291	<b>Repairs</b> ... ..		105 7 1	270	Post Office Savings Bank Account ... ..	5 2 0		
74	<b>Insurance</b> ... ..		67 3 8	165	London Trustee Savings Bank Account ... ..	28 9 8		
	<b>Transactions</b>			24	Interest on Deposit Account ... ..	161 2 4	1,548 9 6	
6,701	Printing ... ..	7,082 12 10		16				
111	Binding ... ..	71 2 6		180				
420	Abstracting ... ..	461 13 4		5				
176	Reporting ... ..	160 19 5		25				
1,060	Postage ... ..	1,245 3 5		55				
357	Wrappers and Addressing ... ..	644 9 8		1,479				
8,825		9,666 1 2						
	<b>Less:</b> Sales ... ..	984 15 5						
1,057	Sales of Bound Volumes	196 18 0						
266	Advertising							
	Income 13,818 13 3							
	Less:							
	Expenses 5,359 14 8	8,458 18 7						
6,575			9,640 12 0					
7,898								
927	<b>Interest</b>		25 9 2					
	Denny Gold Medal ... ..	10 0 0						
	Sir Archibald Denny Award ... ..	5 0 0						
	Stephen Legacy ... ..	2 10 0						
	D. F. Robertson Award ... ..	4 0 0						
	Murdoch Legacy ... ..	2 10 0						
	Adam Girdwood Award ... ..	15 0 0	24 15 0					

ATX

Annual Report of the Council for 1954



263	<b>Purchases and Binding of Library Books</b>	263	0		
283	<b>Depreciation of Furniture</b> ... ..	266	13		
	<b>Prizes</b>				
53	Heat Engines Prizes ... ..	54	12	0	
2	H.M.S. Worcester Prize ... ..	2	2	0	
15	Silver Medal ... ..	13	13	2	
	Alternating Scheme for the Training of				
29	Seagoing Engineers ... ..	87	3	0	
99					157 10 2
685	<b>Local Branch Expenses</b> ... ..	615	12	6	
3,000	<b>Reserve for Renewal of Premises</b> ... ..	3,000	0	0	
	<b>Balance, Excess of Income over Expenditure</b>				
3,163	for the year, carried to Balance Sheet ...	3,889	3	0	
<u>£21,998</u>		<u>£22,977</u>	<u>5</u>	<u>8</u>	<u>£21,998</u>
					<u>£22,977 5 8</u>

### NATIONAL WAR MEMORIAL BUILDING FUND

1953				1953			
£	£	s.	d.	£	£	s.	d.
	<b>Accumulated Fund</b>				<b>National War Memorial Building</b>		
70,203	Receipts to 31st December, 1953	...	91,675 17 0		Expenses to date		
	Received during the year:				Year to 31st December, 1953		
19,421	Donations ... ..	25,575	11 0	4,000	On Account of Architects Fees ... ..	4,000	0 0
2,052	Investment Income ... ..	2,188	4 4		Year to date		
<u>21,473</u>			<u>27,763 15 4</u>		Trial Holes to determine		
					former building line ... ..	7	1 2
91,676			119,439 12 4		Sample Borings ... ..	201	11 11
	Less: Cost of Appeal Booklet ... ..		511 10 3		Insertion of Notices ... ..	20	12 3
			<u>118,928 2 1</u>	4,000		229	5 4
							<u>4,229 5 4</u>
					<b>Investments at Cost</b>		
					£2,500 2½% Defence Bonds 1957 ... ..	2,500	0 0
					£33,000 2½% Savings Bonds 1964/67 ... ..	33,285	7 0
					£19,000 3% Savings Bonds 1955/65 ... ..	18,980	10 10
					£3,750 3% Savings Bonds 1965/75 ... ..	3,777	3 0
					£4,000 3½% War Loan ... ..	4,109	17 8
					£3,000 British Transport 3% Guaranteed		
					Stock 1978/88 ... ..	2,960	13 0
					Post Office Savings Bank Deposit Account	1,820	4 0
				67,390			<u>67,433 15 6</u>
					(Market Value at 31st December, 1954, £64,659)		
					<b>The Institute of Marine Engineers</b>		
					Donation from Social Events Account received		
					in 1955 ... ..	2,500	0 0
					<b>Cash at Bank</b>		
				17,000	Deposit Account ... ..	32,000	0 0
				750	Current Account ... ..	7,303	13 10
							<u>39,303 13 10</u>
					<b>Income Tax Recoverable</b> ... ..		<u>5,461 7 5</u>
<u>£91,676</u>			<u>£118,928 2 1</u>	<u>£91,676</u>			<u>£118,928 2 1</u>

### SOCIAL EVENTS ACCOUNT

1953				1953			
£	£	s.	d.	£	£	s.	d.
4,456	Payments ... ..	4,548	11 4	2,400	Balance at 31st December, 1953	1,188	4 7
2,000	Donation to the National War Memorial			5,244	Receipts ... ..	5,962	7 6
	Building Fund ... ..	2,500	0 0				
1,188	Balance at 31st December, 1954	102	0 9				
<u>£7,644</u>		<u>£7,150 12 1</u>	<u>£7,644</u>			<u>£7,150 12 1</u>	

Sections' Annual Reports

KINGSTON UPON HULL AND EAST MIDLANDS

*Expansion of Section.* Since the last Annual General Meeting in September 1953, the total number of members of all grades in this Section has increased from 228 to 287 and the number of registrations from 97 to 131. The percentage increase in registration is from 42.5 to 45.6.

The number of 131 registered members is made up as follows: 69 in Kingston upon Hull, 14 in Leeds, 9 in Grimsby, 5 in Bradford, the remaining 34 coming from the widely scattered area extending from Skipton in the west to Scarborough in the east, from Pickering in the north and Brigg in the south.

In view of the fact that a considerable number of these members are sea-going engineers, the difficulties of travelling, and that almost impassable barrier, the River Humber, it will be agreed that the attendance at the various lectures is reasonably good.

During 1954 six meetings were held, including one at Leeds and a junior lecture. These were:—

- 20th January. Joint lecture with the Hull Association of Engineers: "Oil Winning", by R. K. Dickie.
- 18th February. "The Insulation of a Refrigerated Cargo Liner", by K. C. Hales, B.A. (Associate Member), and J. D. Farmer, O.B.E. (Member).
- 18th March. "Oil in Industry", films with a commentary by T. M. Green (Associate). Meeting held in Leeds.
- 21st October. "British Naval Gas Turbines", by Cdr.(E) G. F. A. Trewby, R.N. (Member).
- 18th November. "Applying Theory in Electric Welding", by A. R. Old. Meeting held in conjunction with the Institute of Welding.
- 2nd December. "The La Mont Watertube Boilers", by W. C. Carter (Member). Junior lecture at the Municipal College, Kingston upon Hull.

There was an average attendance of forty-nine at these meetings.

The annual dinner was a great success: 163 members and friends sat down to dinner. Following this dinner the Committee decided to donate ten guineas to the Institute's National War Memorial Building Fund out of the small fund that has been accumulated as an insurance against a dinner failure. As a result of the success of the past two dinners, the Committee feel that the insurance fund can be dispensed with.

The deaths of two members during the year is reported with regret. first, Mr. A. C. Gooder (Member), a member of the Section Committee and, second, in tragic circumstances, Mr. W. O. Butler (Associate Member), who was well known to most of the local members.

G. H. M. HUTCHINSON (*Chairman*)  
F. T. MORRIS (*Honorary Secretary*)

MERSEYSIDE AND NORTH WESTERN

*Membership*

The interest shown by members on the formation of the Merseyside and North Western Section in 1953 has been continued during 1954, and the number of members registered with the Section has steadily increased.

Membership now stands at 519, made up as follows:—

Members ... ..	281
Associate Members ... ..	46
Associates ... ..	100

Graduates ... ..	7
Students... ..	25
Probationer Students ... ..	60

The number of Students and Probationer Students is particularly gratifying and includes a large number of apprentices studying under the new scheme for the training of Mercantile Marine engineers at technical colleges in the area. Interest has been stimulated in these colleges by the large number of junior lectures being presented locally. The Committee acknowledge with gratitude the assistance that is received from the principals of these colleges.

*Meetings and Papers*

Five senior papers have been presented at Liverpool and, in addition, seven junior lectures have been given in the North Western area.

The full list of meetings is as follows:—

*Senior Lectures*

- 4th January. "Marine Boiler Surveys", by J. H. Milton (Member).
- 11th January. Annual General Meeting.
- 1st February. "Marine Refrigeration", by Edward Elliott, M.Inst.R. (Member).
- 1st March. "Some Aspects of Mathematics in Relation to Everyday Practice in Marine Engineering", by G. Keenan (Associate Member).
- 4th October. "British Naval Gas Turbines", by Cdr. (E) G. F. A. Trewby, R.N. (Member).
- 1st November. "Fire Fighting Appliances", by G. Keenan (Associate Member).

*Junior Lectures*

- 3rd February. "Marine Diesel Engines", by A. G. Arnold (Member), at Riversdale Technical College, Liverpool.
- 14th October. "Fuel Oil Burning", by R. B. Cooper, M.B.E., B.Sc., at Riversdale Technical College, Liverpool.
- 29th October. "Marine Diesel Engines", by A. G. Arnold (Member), at Old Swan Technical College, Liverpool.
- 8th November. "Air Conditioning of Ships", by J. K. W. MacVicar (Associate), at Liverpool Technical College.
- 11th November. "Gas Turbines", by A. W. Pope, at Bolton Technical College.
- 17th November. "Marine Diesel Engines", by A. G. Arnold (Member), at Birkenhead Technical College.
- 26th November. "Air Conditioning of Ships", by J. K. W. MacVicar (Associate), at Barrow Technical College.

The average attendance was ninety-three.

*Committee*

This was constituted as follows:—

- T. McLaren, B.Sc. (Chairman)
- C. G. Binks (Vice-Chairman)
- L. Baker, D.S.C. (Vice-President)
- E. Elliott
- G. Keenan
- R. H. Dickinson
- G. Kenworthy-Neale
- C. W. Reed
- R. F. Capey
- T. Snowden

## Annual Report of the Council for 1954

G. Pickering (Past Chairman, co-opted 1954)  
 G. H. Cornish, B.Eng. (Honorary Secretary)  
 J. E. Shields (Honorary Treasurer)

Mr. G. H. Cornish retired from the Honorary Secretaryship in October and was succeeded by Mr. G. Kenworthy-Neale.

### Social Events

A Dinner Dance was held at the Exchange Hotel, Liverpool, on 8th October. This again proved to be a great success and it is hoped that the event will be repeated next year. It was attended by the President, H. A. J. Silley, the Chairman of Council, the Secretary, and their ladies.

### Visits

At the invitation of Mr. John Lamb, 140 members and seventy students visited the gas turbine-propelled tanker *Auris* at Cammell Laird's shipyard, Birkenhead, on Thursday, 6th May. The gas turbine set was running light during the visit. Members were chiefly impressed by the quietness and smooth running of the plant and by the combustion equipment. Mr. R.M. Duggan, B.A. (Associate Member) was in charge of the demonstration. He, together with the chief engineer and his staff, devoted much time to answering members' questions.

Mr. R. W. Johnson, managing director of Cammell Laird and Co., Ltd., welcomed the members and entertained them to tea in the mess before the visit to the ship. The visit of such a large number of people to the ship in the short time available was only made possible by excellent organization both on board the ship, and by Cammell Laird's staff ashore.

T. McLAREN (*Chairman*)  
 G. KENWORTHY-NEALE (*Honorary Secretary*)

### NORTH EAST COAST

The Committee presents the following report on the activities of the Section during the year 1954 and on its present position.

The interest and enthusiasm of the registered members has been steadily maintained and the following meetings have been held for the presentation of papers.

- \*26th February. "Operation of a Marine Gas Turbine under Sea Conditions", by J. Lamb, O.B.E. (Member), and R. M. Duggan, B.A. (Associate Member), at Middlesbrough.
- \*1st March. The above paper repeated at Newcastle upon Tyne.
- 25th March. "The Heart of a Tanker", by H. Nicol (Associate Member), at Sunderland.
- 22nd April. "Water Treatment", by J. T. Aynsley, at West Hartlepool.
- 21st October. "Some Fuel Injection Problems", by Dr. W. P. Mansfield, at Newcastle upon Tyne.
- 25th November. "Automatic Boiler Controls", by Lloyd Young, at Middlesbrough.

In addition to these meetings, two junior lectures have been given at technical colleges within the Section area.

- 21st October. "Marine Diesel Engines", by A. G. Arnold (Member), at Gateshead Technical College.
- 12th November. "Marine Closed Feed Systems", by D. C. Hagen, at Sunderland Technical College.

The average attendance at these meetings was sixty.

The attention of members is drawn to the fact that meetings are now generally scheduled to commence at 6.15 p.m. and, when possible, refreshments will be served during the half-hour preceding the meeting.

The first Annual Dinner and Dance, held on 5th February, at the Royal Station Hotel, Newcastle upon Tyne, was a great success and is partly responsible for the increase in the number of registered members.

\* Joint meetings with the North Eastern Branch of the Institution of Mechanical Engineers.

The strength of the membership as at 31st December 1954 is:—

	Registered	Not registered
Members ... ..	221	116
Associate Members ...	42	16
Associates ... ..	103	73
Companions ... ..	—	3
Graduates ... ..	12	9
Students ... ..	15	7
Probationer Students ...	28	28

Great satisfaction has been felt at the appointment of Mr. S. H. Dunlop and Mr. E. T. Middleditch respectively to the Local Vice-Presidencies of West Hartlepool and Middlesbrough.

The Committee wish to record their thanks to the lecturers who have presented papers to the Section and also to express their sincere appreciation of the interest shown and the time devoted to the affairs of the Section by the Chairman, Mr. Harold White.

H. WHITE (*Chairman*)  
 A. W. JONES (*Honorary Secretary*)

### SCOTTISH SECTION

A review of the first full year of activity reveals that the Section continues to prosper and may now be considered to be firmly established in the Scottish engineering community. This, in no small measure, is due to the enthusiastic support of the members and the Chairman and Committee are most grateful to those who have taken part in the Section activities.

Two new features were introduced this year. One was the Dinner which was attended by Messrs. H. A. J. Silley (President), W. J. Ferguson, M.Eng. (Vice-Chairman of Council), and J. Stuart Robinson, M.A. (Secretary). This function received very generous support and will become in future, it is hoped, an annual event. The other was a joint meeting with the Dundee Institute of Engineers. This occasion was also successful and indicates the means to be adopted to reach members who cannot normally take part in our activities.

Registered membership shows a substantial increase of 154 since December 1953. The total number of members resident in Scotland is now 803, consisting of 517 registered and 286 non-registered members.

Since the Annual General Meeting in February, the following members have been in office:—

- Vice-President for Glasgow: G. R. Grange, D.S.O., M.C. (ex-officio)
- Vice-President for Leith: Sir William Wallace, C.B.E. (ex-officio)
- Local Vice-President for Greenock: M. McAffer (ex-officio)
- Chairman: D. W. Low, O.B.E. (Glasgow)
- Vice-Chairman: G. J. Thomas (Glasgow)
- Committee Members: T. A. Crowe (Glasgow)
- A. W. Davis (Glasgow)
- R. Dunshea (Glasgow)
- W. C. Grant (Glasgow)
- J. H. King (Edinburgh)
- G. S. Mead (Glasgow)
- R. Hunter Miller (Edinburgh)
- T. M. Murdoch (Glasgow)
- E. Norton, B.E.M. (Glasgow)
- J. Robson (Glasgow)
- E. H. Smith (Glasgow)
- J. G. Thomas (Glasgow)
- Honorary Secretary: J. D. B. Mundie (Glasgow)
- Honorary Treasurer: K. V. Taylor, B.Sc. (Glasgow)

### Programme for 1954:—

- 15th January. "The Apprentice and Junior Engineer's First Trip to Sea". Students' meeting, at which Stewart Hogg (Chairman of Council) presided and was assisted by T. McLaren, J. W. Walters, R. Barton, and R. Cresswell, at Glasgow.

## Annual Report of the Council for 1954

24th February. Annual General Meeting, followed by a lecture on "The Application of Oxygen-Using Processes in Engineering", by R. E. Doré (Associate Member), at Glasgow.

24th March. "The Denny-Brown Ship Stabilizer", by Sir William Wallace, C.B.E., combined with a visit to Brown Brothers' works, at Edinburgh.

22nd September. "The Condensing Gas Turbine", by J. F. Field, B.Sc., at Glasgow.

13th October. Informal Dinner—"Presidential Address", by H. A. J. Silley (President), at Glasgow.

10th November. "Marine Refrigeration", by D. A. Coull (Associate). This paper was read by T. P. G. Brown on behalf of the author, at Glasgow.

8th December. "Problems on Machinery Space Ventilation", by W. H. Glass, O.B.E., at Glasgow.

10th December. "Problems on Machinery Space Ventilation", by W. H. Glass, O.B.E. Joint meeting with the Dundee Institute of Engineers, at Dundee.

The average attendance at the meetings held in Glasgow and Edinburgh was 103.

D. W. Low (*Chairman*)

J. D. B. MUNDIE (*Honorary Secretary*)

### SOUTH WALES

In presenting the annual report for the South Wales Section, it is a pleasure to note that substantial progress is being made; the Section is becoming increasingly known and respected, the lectures have an excellent and keen following, and the social gatherings are much sought after.

The last Annual General Meeting was held at the South Wales Institute of Engineers on the 15th February 1954, when Messrs. T. C. Bishop, F. F. Richardson, P. L. D. Thomas, and J. Wormald were elected to the Committee to replace those members retiring after the usual three years' service.

At the first meeting of the new Committee Mr. J. H. Evans, M.B.E., was elected Chairman, with Mr. H. S. W. Jones as Vice-Chairman. Several later Committee meetings for the discussion of business arising have all been held in the Examination Room at the Ministry of Transport Offices in Cardiff, and thanks was due to Captain Theyer for the use of these rooms.

The Section activities during the year consisted of a golf meeting, the annual dinner, and two senior lectures.

#### Golf Meeting

The golf meeting was held on the 11th June 1954, at the Glamorgan Golf Club. There were forty-eight members and guests competing; the weather was fine and the sport good. After the competitions, all the players plus sixteen latecomers sat down to supper, following which the prizes were presented by Mr. D. Skae (Vice President).

#### Annual Dinner

The Annual Dinner was held on the 12th November 1954, in the Royal Hotel, Cardiff. There were 207 members and guests present, the maximum capacity of the room. Many notables attended from all parts of the country, and all were unanimous in their view that it was a tremendous success. As in the past, the Section was indebted to Mr. T. G. Thomas and the Dinner Committee for organizing this event.

Not only was it an enjoyable evening, but it showed, as in other years, a slight profit. This profit has been accumulating, and it was proposed by Mr. T. G. Thomas (and carried) at the last Committee meeting, that a donation of £25 be sent to the Memorial Building Fund.

#### Senior Lectures

On 15th March 1954, Mr. H. S. W. Jones (Vice-Chairman) presented his lecture on "A Review of Ship Propulsion Methods". It was delivered in a masterly manner, and dealt chiefly with the merits of the propeller and the paddle throughout the ages. It created much interest and there was a lively discussion. The meeting was well attended.

The first of the 1954-55 Session lectures was given by Mr. J. E. Church (Member of the London Council). His paper, entitled "Marine Machinery of the Immediate Future from a Shipowner's Point of View", was read in the South Wales Institute of Engineers, on the 29th November 1954. This was an excellent paper, dealing with geared Diesel and gas turbines, etc., which is to be re-presented in London on 12th April 1955, and the full text will then appear in the TRANSACTIONS.

#### Death

The death is reported of Mr. William Patton (Member), who was Secretary of the Marine Engineers' Association in Cardiff, and Honorary Secretary of the Cardiff Section of the Institute from 1951-1953. Mr. Patton worked hard for the good of marine engineers and he will be greatly missed.

#### Kindred Societies

The connexion with kindred societies in the area has been maintained, and during the year their members have been invited to be present at Section lectures.

#### Committee

The Committee has met as required, to conduct the business of the Section, and special thanks are due to Mr. W. Gracey, Honorary Secretary from October 1953 until December 1954, for the valuable assistance he gave to the Section. He was compelled to resign on leaving the district to take up an appointment in London.

J. H. EVANS (*Chairman*)

R. G. TURNBULL (*Honorary Secretary*)

### SOUTHERN JOINT BRANCH I.N.A. AND I.M.A.R.E.

The following meetings and social events were held in 1954:—

#### Lectures and Visits

13th January. "Ships' Stabilizers", by Sir William Wallace, C.B.E.

1st March. "The Salvage Association", by L. M. Scaife.

30th March. Annual General Meeting, followed by a paper entitled "The Survey of Wood Craft", by J. M. Robertson.

10th April. Visit to the works of J. Samuel White and Co., Ltd., of Cowes, and a lecture "The Prefabrication of Welded Structures", by R. Cousland.

29th May. Visit to the Reserve Fleet, Portsmouth.

28th September. "The Ministry of Transport Construction Rules", by H. E. Steel.

19th October. "The Admiralty Experiment Works, Haslar", by R. W. L. Gawn, O.B.E., D.Sc., R.C.N.C.

16th November. "The Development of the Napier Deltic Engine", by C. D. Carmichael, B.Sc.

7th December. "British Naval Gas Turbines", by Cdr.(E) G. F. A. Trewby, R.N.

#### Social Events

5th February. First Annual Ball.

29th October. Annual Dinner.

The year 1954 was the first complete year of Branch activities since the inauguration in October 1953, and the interest shown in the eight papers read, the two visits and the social events fully justifies the change in status of the Branch from a junior organization to one embracing all grades of membership of the two parent societies. The President and Branch Council thank all those who contributed papers during the year. The average attendance of over one hundred members is considered to be very satisfactory in view of the large area covered by the Branch.

Enrolled membership has risen from 385 in 1953 to 440 in 1954, an increase of fifty-five. A good proportion of these are newly elected members of the parent societies.

## Annual Report of the Council for 1954

### WEST MIDLANDS

#### Election of Committee

At the Annual General Meeting held on the 18th February 1954 the following Members were elected to serve on the Committee for the ensuing year:—

Chairman: H. E. Upton, O.B.E.  
Vice-Chairman: G. A. Plummer  
B. W. Thompson  
M. W. T. Rees, B.Sc.  
J. A. Forrest, B.Sc.  
C. H. G. Hayward  
R. J. Welsh  
D. K. Lynn

Honorary Secretary: E. G. Webb

Honorary Treasurer: F. Wilson

At a later meeting H. E. Muckley was co-opted to the Committee.

The Committee arranged meetings which were held as follows:—

On Thursday, 18th February, at a General Meeting attended by twenty-five members and visitors and in the absence of Capt.(E) W. Gregson, Mr. Hayward (Member) read his paper entitled "The Search for Economic Marine Propulsion". The paper outlined the improvements made in propelling machinery during this century and touched on future design, which included the gas turbine and atomic power.

On the 18th March the first Annual Dinner was held at the Imperial Hotel, the principal guest being the President, Sir Gilmour Jenkins, K.C.B., K.B.E., M.C., who received all members and guests. Other prominent guests included Mr. Stewart Hogg (Chairman of Council), Capt.(E) Lefroy, R.N., and Mr. J. Stuart Robinson, M.A. (Secretary of the Institute). The evening was a great success although the accounts showed a loss of 19s. 6d., which the Committee made good.

On Thursday, 8th April, at a General Meeting attended by eighty members and visitors, Mr. H. E. Upton, O.B.E., presented his paper entitled "Heat Exchangers for Internal Combustion Engines". The paper outlined the various types of heat exchangers and the design considerations were also dealt with.

On Thursday, 10th June, twenty-two members visited the works of the British Thomson-Houston Co., Ltd., Rugby, where they were conducted round the works by members of the marine department and entertained to luncheon and tea.

On Thursday, 14th October, at a General Meeting attended by over one hundred members and visitors, Cdr.(E) G. F. A. Trewby, R.N. (Member) presented his paper entitled "British Naval Gas Turbines". The paper gave a comprehensive factual report of various gas turbine projects undertaken by engine builders on behalf of the Admiralty.

On Thursday, 11th November, at a General Meeting attended by twenty members and visitors, Mr. A. R. Bowen, co-author with Dr. J. D. Morgan, presented a paper entitled "Patents for Inventions". The paper dealt with the patent rights and law and present-day procedure was also explained.

On Thursday, 9th December, at a Junior General Meeting attended by one hundred members and visitors, films entitled "As Old as the Hills", "Distillation", and "Atomization", were presented by Shell Mex and B.P., Ltd.; and "The Houseman Service", which dealt with boiler water treatment, was shown by Houseman and Thompson, Ltd.

On Thursday, 6th January, at a General Meeting attended by forty-five members and visitors, Mr. M. W. T. Rees, B.Sc. (Member) read his paper entitled "Electric Propulsion of Ships". The paper dealt with steam and gas turbo-electric, Diesel-electric propulsion, referring both to D.C. and A.C. systems.

#### Membership

The membership of the Section at the last Annual General Meeting was 140, of which 100 were registered with the Section. It is pleasing to note that the membership has now increased to 172, of which 137 are registered members.

### General

During the course of the year the Committee has been concerned largely with the detailed work of organization necessary to keep the Section really alive and active. Now, after the second year, the Section is running smoothly. The Committee will continue to arrange lectures which are not too technical and which are of general interest. By so doing and by welcoming visitors to our meetings, we have stimulated interest in marine engineering in the Midlands.

This last year has seen the formation of a Committee known as "The Midlands Scientific and Technical Societies' Programme Committee", the main purpose of which is to produce a small booklet for the benefit of members, which contains the programmes of the various technical bodies in the Midlands. This idea originated with the Midlands Chemists' Committee, and it is hoped that in the not too distant future all the scientific and technical societies in the Midlands will join. The Committee consists of the honorary secretaries of the various bodies taking part and the cost of the booklet is borne by the societies.

Also, this last year a new centre known as the Birmingham Exchange and Engineering Centre has opened in Stephenson Place and has accommodation for meetings with all facilities, free of cost. As this promises to be an ideal place to hold meetings, a reservation was made for the second Thursday in the month for next session, commencing in October 1955.

H. E. UPTON (*Chairman*)

E. G. WEBB (*Honorary Secretary*)

### BOMBAY

The Bombay Section was officially inaugurated at a General Meeting of the local members on 26th February 1954, when there was an attendance of twenty-four. A local Committee of ten members, an honorary secretary and honorary treasurer were elected. The meeting recommended the financing of the activities of the Section by periodic contributions of about 10s. per member as and when the funds required to be replenished and not by regular subscriptions. The Committee met later and decided on the nature of the activities at a meeting held on 9th April 1954. It was then decided to obtain technical films of instructional value on loan for exhibition to the members, while at the same time members were to be encouraged to contribute papers on matters of interest.

A meeting of the Section was held at the Nautical and Engineering College premises at Bombay on 30th August 1954, when a film entitled "Search Unending" was exhibited; fifteen members and six visitors were present, also sixty apprentices from the Marine Engineering Training Scheme.

There has been a feeling amongst those closely connected with Indian shipping that the formation of a society embracing all the technical branches of shipping and shipbuilding would be beneficial to India and would assist the local shipbuilding and marine engineering industry which, though still in its infancy, is being rapidly developed in the country. As a result the Institute of Marine Technologists has been founded by Indian officers and includes in its membership marine engineers, navigating officers, radio officers, naval architects, senior technical staff from dockyards, etc. Being the first institution of its kind in India, and since its aims and objects in the marine engineering field are similar to those of the Institute of Marine Engineers, a good many of the local members of the Institute are also members of the Indian organization, which had made independent activity of the two institutions rather difficult. It was therefore decided by the Section Committee that the Bombay Section should take part in joint meetings with the Institute of Marine Technologists, the first occasion being on 20th September 1954, when a lecture entitled "Alternative Fuels for Diesel Engines" was delivered by B. Sen Gupta, M.I.Mech.E., who has done considerable research on the subject. The attendance at this meeting was 175, of which twenty-five were members of the Bombay Section of the Institute, forty were deck and engineer cadets from the local Nautical and

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Engineering College, and the rest were either members of the Institute of Marine Technologists or visitors. Quite a number of the Section members contributed to the discussion that followed.

The Section Committee intends to co-operate with the Indian society in arranging further joint meetings but also to organize Section meetings for the presentation of papers by Institute members.

### CALCUTTA

The following meetings were held by the Calcutta Section during 1954:—

2nd March. Annual Meeting. The programme for the year was outlined, the committee elected and the financial affairs of the Section discussed.

A film on "Research in Engineering", produced by Metropolitan-Vickers and Co., Ltd., and loaned by the British Information Services, was then shown.

7th April. A meeting was held for the presentation of the paper by J. Lamb, O.B.E. (Member), and R. M. Duggan, B.A. (Associate Member), on "The Operation of a Marine Gas Turbine under Sea Conditions"; the paper was read by Mr. S. Kasthuri (Member) after the showing of a film entitled "The Marine Gas Turbine Goes to Sea", and the paper was then discussed.

17th November. A lecture on "Modern Ship Design" was given by Dr. Voelker, Head of the Department of Naval Architecture, Indian Institute of Technology, Kharagpur.

15th December. A paper on "The Fundamentals of Boiler Water Testing and Analysis", prepared by the staff of the Directorate of Marine Engineering Training College, was read, and a demonstration of sample boiler water testing was carried out in the laboratory of the college; then the paper was discussed.

In addition to these meetings, an informal meeting sponsored by the English Electric Co., Ltd., was addressed by Rear-Admiral(E) W. G. Cowland, C.B. (ret.) (Member), on "The Deltic Engine".

### SYDNEY

The Committee has much pleasure in presenting the Sixth Annual Report reviewing the proceedings of the Sydney Section of the Institute of Marine Engineers during the year 1954.

#### Membership

The Section continues to grow; during the year there has been a net gain of six members and the total is now 116. In addition, enquiries regarding membership have been received from eleven prospective members.

#### Local Committee

The following were elected members of the Local Committee for 1954, viz.:—

Chairman: H. A. Garnett (Local Vice-President)  
Honorary Secretary: Eng. Capt. G. I. D. Hutcheson,  
R.A.N.(ret.)  
Honorary Treasurer: N. A. Grieves  
Committee: W. G. C. Butcher  
B. P. Fielden  
H. W. Lees  
J. Munro  
J. C. Sundercombe  
H. P. Weymouth

In June Mr. Garnett returned to England and resigned his

appointments as Local Vice-President and Chairman of the Committee.

Engineer Captain G. I. D. Hutcheson was appointed Local Vice-President by the Council and was elected Chairman of the Committee; Mr. N. A. Grieves succeeded him as Honorary Secretary and Mr. H. Gerrard was appointed Honorary Treasurer.

In August Mr. Gerrard resigned from the position on account of his transfer to Brisbane, and was replaced by Mr. J. S. Renfrew, who also resigned in December in order to take up an appointment in Brisbane.

#### Meetings

Four general meetings were held during the year and, in addition, there was a meeting for students and apprentices; also a farewell luncheon for Mr. H. A. Garnett, and the Annual Dinner.

The Annual General Meeting was held on 3rd March and at the conclusion of formal business Mr. K. R. Longes gave a lecture entitled "Automatic Control Equipment for Application to Marine Boilers".

On 1st June, Engineer Captain G. I. D. Hutcheson delivered a paper on "The Manufacture of Modern Marine Steam Turbines in Australia".

The sixth annual meeting for students and apprentices was held on 29th June when Mr. L. Bateman presented a paper on "Marine Diesel Engines".

On 15th July, Mr. N. H. Hicks lectured on "Electronic Equipment and Its Application to Industry".

The final technical meeting of the year was held on 30th September and was addressed by Mr. W. R. Evans on "The Fundamentals of Petroleum Refining".

The thanks of all members of the Section are due to those who have provided such interesting lectures during the year.

The Annual Dinner was held at the Wentworth Hotel on the 4th November, and was attended by forty-six members and thirty-four guests, a total of eighty.

#### Students

The authorities at the Sydney Technical College, who are responsible for the marine engineering course, have co-operated to the fullest extent, and the Committee are most grateful to them.

#### Finance

The accounts have been audited and show a credit balance of £40 14s. 10d.; this year again the current subscriptions have been used to provide service to members.

#### National Building Fund

In response to an appeal from the President, members contributed the sum of £43 2s. 0d. (sterling) and this was sent to London by the Local Committee.

Additional donations exceeding a total sum of £100 (sterling) were forwarded to London by individual members.

#### 1955 Programme

The Annual General Meeting will be held on 29th March 1955 and, at the conclusion of the formal business, Mr. J. A. Carson will address members on "Workshop Practice in Connection with the Manufacture of Modern Steam Turbines".

The Committee would be grateful for any further suggestions regarding papers during the current period.

#### Conclusion

The Council continues to take a very keen interest in the activities of the Section, whose members are most grateful for their encouragement.

The Committee is also grateful to the local members for their continued support, as it is only through their interest that the Section is able to function successfully.

G. I. D. HUTCHESON (*Chairman*)

N. A. GRIEVES (*Honorary Secretary*)

## Representatives' Reports

### *British Shipbuilding Research Association, Research Board.*

Representative: S A. Smith, M.Sc.

In April 1954, the Association reached the tenth anniversary of its incorporation. During the ten years of its existence it has been actively engaged on investigations of a wide range of items on a research programme covering most aspects of ship research. The experimental investigations have been undertaken in various establishments throughout the country and also by the staff of the Association, particularly as regards full scale investigations in ships and their machinery.

The work of the Association during this period has been much appreciated by its member firms as a vital contribution towards the design and construction of more efficient ships and machinery. Many investigations have led to results with very practical applications and have been of great value. The work is well supported by the firms in the shipbuilding and marine engineering industry and is also highly regarded by the Government who, during the past year, have renewed arrangements for giving financial support to the work through the Department of Scientific and Industrial Research.

During 1954 progress has been maintained on existing items of research in all sections of the programme and work has been commenced on some new items. An instance of this, in the machinery section, is an examination of existing practice in the production and fitting of propeller shaft liners, bushes and bearings. Investigations being carried out at the Royal Technical College, Glasgow, into the causes of failures of built-up crankshafts and rig tests with an hydraulic mechanism for applying fluctuating loads to a model web have been completed; the results have proved satisfactory. Another interesting item concerns the descent of smoke on to decks. Following work on models in a wind tunnel, full scale tests have been carried out on a cross-Channel steamer to obtain photographic evidence of the correlation between ship and model. A report is to be issued to member firms giving the results which have justified the model technique used. Also a systematic series of model tests have been completed, using blocks of various shapes and sizes, representing typical superstructure features.

The Imperial College of Science and Technology, London, are carrying out investigations for the Association, the aim of which is to provide fundamental information on heat transfer for marine applications. A report, dealing with the correlation of current data on heat transfer and pressure drop, in segmentally baffled oil and tube heat exchangers, is to be issued to members.

The Association carries out certain of its researches in conjunction with other research associations, where there is mutual interest in a subject. An example of this is an investigation in conjunction with the British Cast Iron Research Association of the factors affecting the life of cast iron propellers. The aim is the improvement of cast iron propellers. Two reports have been issued to members; the first discusses factors affecting the life of cast iron propellers, and the second, the nature of pitting attack on cast iron propellers and preliminary experiments on its prevention by cathodic protection.

In the hydrodynamics field, work is still continuing on ship/model correlation and in conjunction with the National Physical Laboratory, Teddington, a study of this subject is in hand. The loaded ship trial arrangements are made by the Association, who provide the necessary observers and apparatus on the trials. The corresponding model tests and ship/model comparisons are carried out by the N.P.L. In all cases special

model tests are made to correspond with the condition of the ship on trial. Much valuable information is gained from this work. Work is proceeding actively on other items in the field.

Progress on the structures section has continued throughout the year. The staff of the Association are collecting and analysing existing information on launching with a view to providing the industry with data, and full scale and laboratory investigations have been undertaken. It is now possible, as satisfactory techniques have been developed, to carry out many structures investigations on the model basis. It is most important, however, that such observations should be correlated with the stresses experienced and observed on actual ships. The Association is therefore conducting full scale tests to investigate the stresses experienced by different types of ships under all conditions of weather and service. Ships have been fitted out with strain gauges and readings are being taken during voyages.

The final section of the research programme deals with Ships' Performance. During the past year extensive measurements were made on board a ship during a round trip in the North Atlantic and a large variety of instruments were carried to record the performance of the ship and machinery, the wind's speed, the rolling and pitching of the ship and the waves encountered.

It is not possible in a report of this nature to cover completely the whole field of research but from this necessarily brief review it can be seen that the Association has continued to do most valuable work for the industry.

### *Engineering Joint Examination Board.* Representatives: F. H. Reid, B.Sc., Wh.Ex., and F. S. Gander, B.Sc.

The Common Preliminary Examinations were held from 6th to 9th April and from 5th to 8th October 1954.

The Annual General Meeting of the Board was held on 18th June 1954, to receive the report for the year 1953-54, the statement of accounts for the year ending December 1953, and the reports of the Committee of Moderators on the results of the examinations.

There were 226 candidates (home) and 106 (overseas) for the October 1953 examination, of whom 198 and 88 respectively sat the examination. Of these a total of 51 (home) and 62 (overseas) sat for the whole examination, of whom 17 and 23 (33 and 37 per cent) passed, 9 and 12 (18 and 19 per cent) were referred, and 25 and 27 (49 and 44 per cent) failed. Of the 166 candidates who had been referred in one or two subjects in a previous examination, or who were permitted to make good deficiencies in recognized exempting certificates 92 (55 per cent) passed, 5 (4 per cent) were referred in one subject, and 69 (41 per cent) failed.

For the April 1954 examination there were 252 (home) and 129 (overseas) candidates, of whom 231 (home) and 94 (overseas) sat, and 64 (home) and 84 (overseas) took the whole examination. Of the 64 (home) candidates, 13 (20 per cent) passed, 9 (14 per cent) were referred, and 42 (66 per cent) failed; and of the 84 (overseas) 24 (29 per cent) passed, 32 (38 per cent) failed, and 28 (33 per cent) were referred.

Of the 167 (home) candidates who had been referred, or entered for one or two subjects, 72 (43 per cent) passed, 85 (57 per cent) failed, and 10 (6 per cent) were referred; whilst of 10 (overseas) candidates 3 passed and 7 failed.

At the Annual General Meeting the Board agreed:—

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"That the three set books in English for the April and October 1956 examination be:—

Shakespeare: "Merchant of Venice".

Conrad: "Lord Jim".

Palgrave: "Golden Treasury, Book III".

That the General Certificate of Education covering passes at the Ordinary level in (i) English; (ii) Elementary Mathematics; (iii) and (iv) either two approved science subjects or one approved science subject, and a foreign language, be continued to be accepted as exempting from the Common Preliminary Examination.

That Dr. S. B. Hamilton be appointed Chairman for the year 1954-55.

That the 1955 examinations be held on 19th-22nd April and 4th-7th October".

*Institution of Electrical Engineers: Ship Electrical Equipment Regulations Committee.* Representative: N. H. Swancoat.

A considerable amount of work has been done by this committee, particularly with regard to the new International Regulations.

*Joint Committee on Materials and Their Testing of Technical Institutions and Societies in Great Britain.* Representative: R. Cook, M.Sc.

At the Sixteenth Annual Meeting of the Joint Committee on the 30th March 1954, the Chairman, Mr. C. W. Glover, retired. He was succeeded by Mr. T. M. Herbert, M.A., M.I.Mech.E., the representative of the Institute of Metals.

During the year further negotiations have been carried on with the Institution of Mechanical Engineers regarding the International Conference on Fatigue. The Joint Committee had suggested a list of institutions who might be approached to provide representatives on the Organizing Committee. The list included the Institute of Marine Engineers. The Institution of Mechanical Engineers expected that the conference would take place in 1956. They had ascertained that the Swedish Conference in May 1955 would not conflict with their plans.

Steps have been taken to promote a symposium on non-destructive testing under the sponsorship of the Iron and Steel Institute. Recently announced conferences in this field may mean, however, that a reconsideration of this project is necessary.

*Poplar Technical College, Board of Governors.* Representative: W. Sampson.

Mr. Sampson attended all meetings of the Board of Governors during the year, as also did Mr. Stewart Hogg, a co-opted member of the Board.

*Royal Naval Reserve (General Service) General Committee.* Representative: F. D. Clark.

There was one full meeting of the R.N.R. (G.S.) General Committee during 1954 and the next meeting is scheduled to take place in May 1955.

At the last meeting it was mentioned that the engineer officer recruitment had greatly improved, the numbers borne having been practically doubled over those of the previous year. In the report for 1953 it was mentioned that of an allowed establishment of 200 engineer officers, the strength was then fifty. It is a pleasure to report that, as at 31st December 1954, this strength had risen to seventy-two, a large percentage of whom are members of the Institute.

Admiralty approval has now been given for the initial training period for engineer officers (of six weeks) to be performed, if required, in two periods of three weeks within two years of entry, and for the biennial training periods of twenty-eight days to be performed, if desired, in two periods of fourteen days. It was considered that these concessions would be appreciated particularly by engineer officers employed ashore.

The R.N.R. News Letter is now being distributed to all Active List R.N.R. Officers, and also to retired officers of the

rank of captain and commander who report their whereabouts annually, in accordance with regulations.

Following Admiralty approval, regulations have been drafted for the rank of Midshipman(E) R.N.R. Such officers should be recruited from trainees under the Ministry of Transport and Civil Aviation alternative scheme. However, it was felt that since this scheme is still in its early stages, no further development should take place at the moment to recruit trainees and before any action is taken A.C.R. would consult with the shipping companies concerned and with the Ministry of Transport and Civil Aviation.

During the course of the year Mr. Clark has acted as liaison with A.C.R. staff to deal with queries about R.N.R. matters raised by members of the Institute, and would be quite willing to continue this service should any member desire it. He also attended the Reserve Engineer Officers two-week refresher course at Manadon to see at first hand the training given to engineer officers of the Royal Naval Reserve.

Finally, Admiral Commanding Reserves has given his blessing to the Royal Naval Reserve Officers (London) Club, which was formed during the course of the year and founded by several members of this Institute.

*Lloyd's Register of Shipping Technical Committee.* Representatives: A. Logan, O.B.E., and H. J. Wheadon.

Two meetings were held during 1954, one on 10th February and the other on 9th December.

The business discussed during these meetings included the following:—

### *Design and Construction of Modern Cargo Ships*

The Committee had before them the record of a Special Panel which was formed to consider amendments to the Construction Rules in view of structural damage sustained by vessels during heavy weather. This was generally discussed under two headings:—

Minimum standard of strength of longitudinal scantlings.

Welded construction.

A number of amendments to the "Rules for Steel Ships" were proposed and approved for submission to the General Committee.

### *Rules for Quality and Testing of Materials*

Amendments were made concerning boiler steel, short link chain cable and steel wire ropes. An amendment was also made to paragraph P.403 in connexion with wholly or partially welded ships.

### *Steel Manufactured by the "Oxygen Blown" Basic Converter Process*

Approval was given to the use of this type of manufactured steel in accordance with the Rules and subject to various safeguards.

### *Boilers and other Pressure Vessels*

In view of advances in steam pressures and temperatures, a review of the Rules for Water Tube Boilers was made and certain proposed amendments were adopted.

### *Rules for Electrical Equipment*

Various amendments to the Rules were discussed and generally approved.

### *Rules for Refrigerated Cargo Installations*

A complete revision of the chapter relating to the Construction of New Refrigerated Cargo Installations was considered and approved.

### *Rules for Pumping and Piping*

In view of the advanced steam conditions in modern steam turbine ships, proposed alterations were submitted dealing with pipe thicknesses. These were approved.

### *British Standards Institution Committees*

*CHE/18/2 Metallic Finishes (Quality).* Representative: H. E. Bedford.

No further meetings of this committee have been held since



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the final draft of B.S. 1224:1945 was approved; this Standard has now been re-issued as B.S. 1224:1953 "Electro-plated Coatings of Nickel and Chromium".

*CHE/37/2 Methods of Sampling Waters Used in Steam Generation.* Representative: H. J. Wheadon.

A panel was elected in 1953 to draft a revision of B.S. 1328:1946 "Methods of Sampling Water Used in Steam Generation" for consideration by the full committee. The work undertaken by this panel is nearing completion.

*CHE/37/3 Methods of Boiler Water Treatment.* Representative: H. J. Wheadon.

A panel was elected in 1953 to draft a revision of B.S. 1170:1947 "Treatment of Water for Marine Boilers" for consideration by the full committee. The work undertaken by this panel is still progressing.

*ELE/1/10 Marine Motors and Generators.* Representative: N. H. Swancoat.

Although no meetings have been held by this committee a certain amount of work has been done with regard to preparation of new standards for marine motors and generators and a meeting has been arranged for 8th February 1955.

*ELE/3/2 Ships' Cables.* Representatives: N. H. Swancoat and A. N. Savage.

Very little has been done by this committee except that minor modifications have been noted in connexion with the preparation of a new standard.

*INE/6/2 Pressure Gauges (drafting).* Representative: A. J. Mann.

There was only one technical committee meeting during 1954. This committee investigated suggestions for amendments to B.S. 1780, the majority of which were either impracticable or arose from a misunderstanding of the scope and contents of the Standard.

Some of the suggestions were, however, acceptable, particularly one relating to the dimensions of tailpipes and union nuts in Tables 8 and 9. These changes were accepted because the dimensions shown in the Standard were found to give rise to certain weaknesses.

A further meeting will be held in the early part of 1955 to finalize the matters under discussion, to review various other suggestions, and to decide whether any alterations will be advised in the form of an amendment slip or an entirely new edition of the Standard.

*ISE/— Iron and Steel Industry Standards.* Representative: James Turnbull, O.B.E.

During the year a "Glossary of Terms Relating to Iron and Steel" has been published. This defines the many terms commonly used in the iron and steel industry and should be of great value also to the users.

Of the specifications in preparation, probably that for broad flange beams is the most important. This will include long legged tee bars and heavy flange tee bars, sections which are useful for welded construction. The specification should be published at an early date.

Plans are in hand for co-ordinating the numerous standard specifications for steel.

*MEE/6/19 Gear Hobbing Machines.* Representative: S. A. Smith, M.Sc.

The work of this committee was completed in 1953 and a new Standard, B.S. 1498:1954, was published in May 1954. Since then the committee has not started any new work.

*MEE/34/2 Water Tube Boilers.* Representative: J. Anderson.

Panel MEE/34/2/1 met in December to consider the question of amending and redrafting B.S. 1113:1951 "Water

Tube Boilers and their Integral Superheaters", and a further meeting has been arranged.

*MEE/34/6 Boiler Mountings and Fittings.* Representative: J. Anderson.

Several meetings of this committee were held and draft specifications CT(MEE) 8095, for "Valves, Gauges and other Safety Fittings for Land Boilers" (Revision of B.S. 759:1950) was prepared and finally circulated for comments during October.

*MEE/34/8 Pipes and Piping.* Representative: J. Anderson.

Panel MEE/34/8/2 was responsible for the preparation of a draft specification CR(MEE) 8648, for "Non-Ferrous Pipes and Piping Installations for and in Connection with Land Boilers" (Revision of B.S. 1306 (Part 1): 1946). This draft was circulated in January for comments and at a meeting held in October it was agreed that certain amendments should be made to the draft.

*MEE/34/15 Corrugated Furnaces for Cylindrical Boilers.* Representative: J. Anderson.

No meetings of this committee have been held. A new B.S. Specification, No. 1971 "Corrugated Furnaces for Cylindrical Boilers" (superseding B.S. 3023:1926), was published in 1953.

*MEE/39 Compressor Tests and Definitions.* Representative: J. K. W. MacVicar.

As the revised functions of this committee involved the testing of fans for general purposes, also mine fans, a meeting was held on 5th October 1954, when two additional sub-committees were formed, as follows:—

MEE/39/4 Fans for General Purposes.

MEE/39/5 Mine Fans.

In view of the size of the two sub-committees, it was decided that the drafting of the testing clauses should be undertaken by a special panel which was duly formed under the heading:—

*MEE/39/4/1 Fans (drafting)*

This drafting panel held its first meeting on 10th November 1954, but so far has not issued any reports to the sub-committees.

*MEE/81 Valves for Gas, Water and Steam.* Representative: A. Logan, O.B.E.

The British Standard 2060:1953 "Copper Alloy Globe Valves for General Purposes" was printed and issued in January 1954. The third draft of the Standard for "Copper Alloy Gate Valves for General Purposes" has been received for comment. The twelfth draft of the Glossary for "Valves and Valve Parts (for Fluids)", Part 1, has been received for comment.

*MEE/81/3 General Purpose Valves.* Representative: A. Logan, O.B.E.

Various meetings have been held throughout the year to deal with "face-to-face" dimensions of copper alloy globe valves, which is to form the addendum to B.S. 2060:1953, and also the draft Standards for Check and Gate Valves.

Other matters raised by sections of the industry in connexion with these specifications were also dealt with.

*MEE/84 Injection Equipment for Compression Ignition Engines.* Representative: J. Calderwood, M.Sc.

The general principles to be considered by this committee were established some time ago and a sub-committee has been meeting periodically over the last two years; its report is awaited by the main committee.

*MEE/91 Jointing Materials and Compounds*

*MEE/91/2 Compressed Asbestos Fibre Jointing.* Representatives: W. E. Hoes and Lieut.-Cdr.(E) A. P. Monk, D.S.C., R.N.(ret.).

Technical Committee MEE/91 was originally set up in January 1946 to prepare British Standards for jointing materials

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and compounds for low pressures up to 30lb. per sq. in., but in July 1953 its terms of reference were enlarged to make it responsible for all future specifications for jointing materials and compounds, and especially for one on similar lines to B.S. 1737:1951, but relating to materials for high pressures and temperatures.

B.S. 1737 covers many different types of materials and compounds for low pressures, but at a meeting of MEE/91 held in November 1953 it was decided that it would not be practical to deal with widely differing types of gaskets for high pressure in a single specification, and that a series of separate specifications for each class should be prepared by drafting sub-committees. Up to the present the only sub-committee which has been formed for this purpose is MEE/91/2, which was originally required to deal with all types of jointings containing asbestos, but which, at its first meeting, decided to concentrate initially on the preparations of a specification for Compressed Asbestos Fibre Jointing.

It was decided that the specification should cover two grades of material, Grade A for service ratings up to 950lb. per sq. in., and 950 deg. F. temperature, and Grade B for service ratings up to 250lb. per sq. in., and 450 deg. F.

The draft specification was prepared very rapidly and was circulated for comment in September 1954. The comments were considered in December and the revised draft is now ready for printing and issuing as a new British Standard.

At a meeting of the Technical Committee in December it was decided that there was no call for a specification for spiral wound gaskets, of for metal jacketed asbestos-filled gaskets and that no steps would be taken at present to deal with corrugated metal gaskets, solid flat metal gaskets, or ring joints. It therefore looks as if the new specification for compressed asbestos jointing will be the only specification for high pressure jointing materials to be produced by this committee.

A more valuable decision made at the same meeting was that to set up a new sub-committee MEE/91/4, to prepare a dimensional specification for gaskets, non-metallic and metallic, for use with British Standard flanges, and this should eventually prove to be really useful to both gasket users and manufacturers.

The terms of reference of Technical Committee MEE/91 have been further enlarged to include all types of gland packings, and the first step in this direction has been the formation of a sub-committee, MEE/91/3, to deal with the dimensions of packings for the glands of reciprocating and rotary pumps.

In the opinion of the Institute representative the new specification for asbestos jointing will ensure a fairly good quality material but not necessarily the best obtainable for a specific application. It is inevitably somewhat of a compromise in order to embrace a number of reputable and widely used proprietary brands, also to cover a generous field of applications and usages.

When manufacturing compressed asbestos jointing, certain properties can be enhanced by making sacrifices in others, and there exist differences of opinion as to which of these properties

are the most important. For example, tensile strength can be increased at the expense of heat resistance, and *vice versa*, while a high comprehensive strength may lead to less flexibility and ability to bed down easily on an uneven surface. The best of the proprietary brands are not identical in composition and properties, and any specification which will cover them all must be drawn round the lowest common figure in each respect. These figures have been set sufficiently high to exclude an unsuitable material, but the best brands available exceed the specification in most respects although not in all.

*MEE/119 Plain Bearings.* Representative: R. W. Cromarty.

A meeting has been held to finalize draft specifications for submission to the Mechanical Engineering Standards Committee with a view to publication. These have now been published as B.S. 1131:1955, Parts 1-5, "Plain Bearings (Metal)".

*MEE/123 I.C. Engines for Stationary Purposes.* Representative: A. Logan, O.B.E.

This committee is now dealing with proposed amendments to B.S. 649:1941, "Reciprocating Internal Combustion Engines", also with a proposal for the de-rating of turbo-charged engines with and without after coolers.

*PTC/2 Fuel Oils.* Representatives: J. L. Chaloner and R. Munton, B.Sc.

In accordance with instructions from the Petroleum Industry Standards Committee to the PTC/2 sub-committee, consideration is being given to the revision of Specifications B.S. 209 and B.S. 742, both of which were last revised in 1947.

*SFE/— Solid Fuel industry Standards Committee.*

*SFE/1 Nomenclature and Definitions for Solid Fuel Burning Appliances.* Representative: R. Cook, M.Sc.

Two meetings of the Industry Standards Committee have been held during the B.S.I. year, April 1954 to March 1955, and during that time a new Code of Practice dealing with the Installation and Maintenance of Underfeed Stokers, and a revision of B.S. 1764, "Log Sheets for Steam and Hot Water Boiler Plants", have been prepared. Under the Committee's direction active work has proceeded under ISO/TC 27, the international committee dealing with standardization of methods of test for coal and coke, of which the B.S.I. holds the Secretariat. In this connexion progress has been made in the revision of B.S. 1016 dealing with the analysis of coal and coke, and several sections of this standard will shortly be issued for comment.

With regard to the work of SFE/1, no meetings have taken place, but it is likely that its work will soon be recommenced as a result of proposals made by the Gas Industry Standards Committee of the Institution. That committee has suggested that it would be useful to have a glossary prepared dealing with terms covering raw materials such as coal and coke. For example, definitions for coal rank, vitrain, doubles, etc., would be most useful. Accordingly, it is hoped soon to form a sub-committee under SFE/1 to deal with this work project.

# Minutes of Proceedings of the Sixty-sixth Annual General Meeting

Tuesday, 26th April 1955

The President, MR. H. A. J. SILLEY, was in the Chair.

## *Minutes*

The Minutes of the preceding Annual General Meeting were confirmed and signed.

## *Introductory Remarks by the Chairman*

The CHAIRMAN said it was indeed a very great pleasure for him to be occupying the Chair on this occasion, which was the Sixty-sixth Annual General Meeting of the Institute. It had been a year of great activity, as members were aware, and at this meeting they would be asked to adopt the Report and agree to some amendments to the By-Laws which had received the approval of the Privy Council at the end of the summer.

It was also a great pleasure, on behalf of the Institute, to present the awards for the year to a number of gentlemen who were present. There were a number of other recipients to whom awards would be posted.

This was also the occasion for dealing with new appointments to the Council and new office bearers.

## *Examination of Voting Papers*

On the invitation of the CHAIRMAN, the Scrutineers retired in order to examine the voting papers.

## *Presentation of Annual Report*

The SECRETARY (Mr. J. Stuart Robinson) presented the Annual Report of the Council for 1954.\*

## *Presentation of Annual Financial Statement*

The HONORARY TREASURER (Mr. A. Robertson, C.C.) presented the Annual Financial Statement for the year ended 31st December, 1954.

“Mr. President and Gentlemen,

The Auditors' report reads as follows:—

“We have verified the investments, bank balances, insurance policies and title deeds by means of banker's certificates and we have obtained all the information we have required. In our opinion, the balance sheet of your Institute has been properly drawn up so as to exhibit a true and correct view of the Institute's affairs according to the information and explanations given to us, and as shown by the books of the Institute.”

Members may note a slight alteration in the wording of this certificate. It is due to the fact that Barclay's Bank now hold all our securities and certify for them annually; previously we used to keep them in deed boxes and inspect them yearly.

## *Revenue Account Income*

Subscriptions, all grades, are increased, with the exception

\* This report appeared in the March 1955 Transactions, pages v—xxiv.

of Graduates', the total increase being from £19,230 to £20,114, i.e. £884.

Entrance fees are up by only £8 from £935.

Investment income is £1,548 and represents an increase of £69.

The total revenue increase from all sources is £979 and stands at £22,977.

The income from the advertisements in the TRANSACTIONS is not included in this total. This represents a total of £13,818. As pointed out by the accountants, this offsets the cost of the TRANSACTIONS, including binding, abstracts, postages and wrappers, almost entirely, leaving a debit balance of only £25 9s. 2d.

## *Expenditure*

General expenses are up by £1,335, the main items of increase being Postages and Telegrams from £716 to £806, viz.: £90. Junior Lecture expenses increased by £62 to £98, Stationery and General Printing from £173 to £1,824 and Staff Salaries by £337 to £6,500.

Professional fees, a fresh item, covers legal expenses in connexion with the Supplemental Charter and accountants' fees for recovery of income tax.

Sundries shows a substantial increase of £374 to £972. This includes staff bonuses, Christmas gratuities, Secretary's expenses and expenses connected with the Transactions due to the National War Memorial Building Fund.

Rent, Rates, Light or Heat and House expenses are only up by £38.

## *Transactions*

I have already referred to this matter, showing a small debit balance of £25 9s. 2d.

## *Prizes*

We have been able to distribute prizes to a value of £157 10s. 2d. against only £99 the previous year.

## *Section Expenses*

The Section expenses account stands at £615 against £685 the previous year.

## *Renewal of Premises*

You will note that £3,000 has been placed to the Renewal of Premises, leaving a credit balance of £3,889, an increase of £726.

## *Balance Sheet*

You will note that the item for creditors is very high at £6,621 15s. 7d. against £1,599 last year. This is due mainly to the fact that large orders were outstanding for paper and covers for the TRANSACTIONS and were unpaid at the time.

The three technical books show a credit balance of profit of £4,502 1s. 4d. over the several years of publication.

## Minutes of Proceedings of the Annual General Meeting

The stocks remaining are now quite low and are shown in the last item on the credit side of the Balance Sheet as :

"Running and Maintenance of Marine Machinery	Nil
"Electricity Applied to Marine Engineering" ...	£492
"Naval Architecture and Ship Construction" ...	£363

Reprints of all three publications have had to be dealt with and in fact orders have now been put in hand.

There is an increase from Reprints of Papers of £44 to £62 16s. 10d.

Receipts from the hire of the premises is reduced by £32.

On the credit side you will note we have increased our Deposit Account from £4,000 to £12,000 rather than invest in gilt-edged securities which at the present time show substantial fluctuations in prices, sometimes from day to day.

Of the investments, £1,000 3 per cent. National Defence Loan has been redeemed.

Stocks of paper held at the end of the year are valued at £2,190 2s. 3d.

A very pleasing feature is that Life Subscriptions taken out during the year amount to £267 5s. 0d. These are placed to Capital Account and when added to the Balance on revenue account totals £4,157 11s. 0d., showing a final total capital of £53,804 against £49,647 in the previous year, and this is after placing £3,000 to Building Renewal reserve.

This is the appropriate time to give some details about the progress of the building.

We took possession of the site on 21st February and the reinforced concrete contractors, The Twisteel Concrete Company took possession on the same day although their contract to complete their work in eighteen months dates from 7th March. We have the site on a peppercorn rent for thirty-three months as from 21st February. Our architects are aiming to complete the building by September 1957.

Whilst referring to this I should like to make a passing suggestion that there will be many items of furnishing required, the fitting out of the Library for one, the Council Chamber for another. I am quite sure some of our members would like to be associated with some of these furnishing details.

The foundations were commenced on the date already stated; this is the part of the work that cannot proceed fast. Unfortunately, on inspecting the site today I find that in excavating for the lift-well they have struck water at 35 feet. Pumps are on the job and it is not serious.

May I end with just one word—let us all display the maximum enthusiasm in collecting monies to pay for the scheme in spite of the fact that the cost has risen from £460,000 to £625,000—staggering perhaps but not to the marine engineer with such a worthy object as we have in view, to perpetuate the memory of many of our personal relatives and friends, and our own kith and kin.

### *Guild of Benevolence*

The Annual General Meeting was held on Wednesday, 6th April, when the accounts were passed. They showed an increase in capital of £1,297, from £91,735 to £93,032.

The balance of income over expenditure amounted to £613 11s. 3d.

The total income was £3,842 4s. 8d., of which £2,933 15s. 3d. was distributed in relief.

The General Account of the Institute is debited with the sum of £192 2s. 3d. to cover cost of administration.

### *National War Memorial Building Fund*

The importance of this fund, as every member realizes, is supreme; its progress under our President, Mr. H. A. J. Silley, has been excellent. There has been an increase in the accumulated fund of £27,763, from £91,676 to £119,439. The cost of the appeal booklet has to be deducted from this, leaving £118,928.

This is a fine effort but it does not reflect the true position because we have to credit the fund with all the subscriptions which will be received in the future as the result of covenants already entered into, some of which have already been received.

The total value of covenants to the end of the year 1954, when grossed up over the period of seven years and allowing

for recovery of income tax, would be approximately £79,000, of which about £17,000 had then been recovered. This leaves approximately £60,000 to come, as at December 1955, and will ultimately increase the figure of £118,928 by this amount, bringing the anticipated total as at the end of 1954 to just under £188,000.

Covenanted subscriptions form a very lucrative way of raising revenue and we must keep them going. A member promises a small amount per annum, tells his bank, forgets all about it, and then has to be told he is an annual subscriber.

A complete list of subscribers both for donations and covenants is now being prepared and will shortly be in print.\*

I must make special reference to the fact that our President set himself a target to raise £50,000 during his year of office; the commencing date was fixed as the date when the Appeals Committee first met on 29th April 1954. By the end of the year the amount raised and promised totalled approximately £56,000, donations were £10,390 and the balance in covenants. Since the end of the year over £10,000 has been added to these figures.

I do not propose to refer to individual contributions, large and small, but I should like to say how much the President and Council appreciate the receipt of contributions of members abroad from all parts of the world on this side of the Iron Curtain; it is surprising how many we have received from abroad.

The Appeals Committee met again on the 14th March; they surveyed the whole position and decided to set a target to raise at least another £85,000 by the time the building is opened towards the end of 1957. This requires the continued help and assistance and drive of all our members.

May I sincerely thank, on behalf of our President and Council, all our numerous members and friends who are helping in this Memorial Building Fund for their liberality and generosity."

The CHAIRMAN observed that the Honorary Treasurer, with his usual eloquence, had told members where their duty lay. It should in particular be noted how easy it was to give one's Banker instructions and then forget all about them.

### *Adoption of Annual Report and Financial Statement*

MR. W. McCLIMONT, B.Sc. (member) in proposing the adoption of the Annual Report and Financial Statement, pointed out that they were once again in the clear, concise and self-explanatory form which had been appreciated by members in past years. Before formally proposing their adoption, he would like to review some of the points which appeared to be high lights.

The figures for membership were again very satisfactory. One point which might be worthy of note was the continuing high ratio of Associates to Associate Members. The figure was still almost three to one. However, by the end of 1954 the effect of the revision made to the qualifications for the various grades had not had much time to make itself felt, and everyone would look forward with interest to the position at the end of 1955.

The decisions taken by the Council regarding the TRANSACTIONS were welcome and had in fact enhanced this valuable publication. One slight note of criticism might, however, be inserted here. The removal of the titles of the main papers from the outside cover was an unfortunate step. It might be an aesthetic advance, but it was very convenient to locate a paper by the title on the outside when all one could recall was that the paper was read "some time early this year."

The continuing expansion of activity in the Sections was most gratifying. One noted with particular interest the extension of the areas of activity. The initiation of papers in the Sections was of great value and had led to the decision of the Council to include a number of these papers in the TRANSACTIONS. He trusted he would not make himself unpopular with authors or with the Papers and Transactions Committee, or with the Secretary, if he suggested that some of the discussions in the Sections should also be included in the TRANSACTIONS, particularly those concerning papers first

\* See page xxxvii

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presented in London and later repeated in the Sections. Perhaps it might put on record discussion on a practical plane, which many of these papers deserved but which was rather lacking sometimes in London.

The Balance Sheet and the statement by the Honorary Treasurer had drawn attention to the healthy financial position. There was again an increase in general expenses, fortunately not so great as was noted a year ago. But when considering this, one must keep in mind the increased subscription revenue, implying an increase in the expenses incurred in maintaining the services of the Institute to an increased membership.

There was a further decrease in the net cost of producing the TRANSACTIONS of £902. As this reduction was due partly to the activities of the Institute's own staff, some of the cost incurred formerly in connexion with the production of the TRANSACTIONS might now have found its way into the category of general expenditure. However, although one might speculate about such points, one always came back to the nice solid comforting fact that 1954 had shown an increase in the surplus of £726.

He was sure members would wish to express their appreciation to the Honorary Treasurer. This was, he believed, the thirty-fifth account he had given them of his stewardship.

The HONORARY TREASURER: The thirty-sixth.

MR. McCLIMONT, continuing, said that those who were in frequent contact with the Institute were appreciative of the excellent work of the Secretary and his staff. That attitude of personal attention to each member as an individual which was so noticeable in the Secretary and his staff was a major factor, he thought, in the prosperity and the congenial atmosphere of the Institute. It was a great pleasure to him to express appreciation of their efforts.

He had pleasure in proposing the adoption of the Annual Report and Accounts.

Mr. C. P. HARRISON (Member), in seconding the adoption of the Annual Report and Financial Statement, said that for his part he liked the Report. He liked the form of it. He thought everybody would be satisfied with the contents but this was for them to say. He liked the brevity of the introductory remarks and he would take a tip from it and be brief himself.

He had no critical remarks to make but he wanted to draw attention to and emphasize one or two points.

Firstly, he would like to support Mr. McClimont's suggestion that some of the Section discussions, particularly discussions on headquarters papers, should appear in subsequent issues of the TRANSACTIONS with the author's reply to that discussion.

He thought there should be a special word of praise of the Junior Section Committee on this occasion. The extent of their activities and keenness was evident from the details given on page viii of the March Transactions and he hoped they would receive all the support they deserved from the Council.

Secondly, he thought it was worth noting that nearly half the contents of the Annual Report represented reports from the Sections and reports from the representatives on outside bodies. These were set out in detail and were worthy of study. This was the clearest evidence of constant activity, and no small part of the work done by Members of Council and others in the interests of the Institute and of the profession was shown in this representation on outside bodies. At least twenty-four organizations were mentioned, ranging from the British Shipbuilding Research Association to Examination Boards and many British Standards Committees.

He had pleasure in seconding the motion.

MR. R. S. BRETT (Associate Member) said he would like, after paying due deference to the previous speakers, to express his appreciation and the appreciation of a number of his provincial friends of the present high quality of the TRANSACTIONS.

He noticed that membership was now well over the nine-thousand mark, and he felt that a very large number of the members were prevented by their location from attending either headquarters meetings or local meetings. Their only link

with the Institute was through the TRANSACTIONS. Most members would agree with him that the TRANSACTIONS in the past year had reached a very high standard, a most excellent standard.

He would also like to express his appreciation of the new cover. Possibly, as had been suggested, the æsthetic appeal was outweighed by a number of more necessary qualifications, but he still felt this was a first-class cover.

Another small point was the new system of sending the TRANSACTIONS out in envelopes rather than rolled up in wrappers, which gave a lot of trouble and distorted the books, producing a certain distaste for going through them as assiduously as one might have done if the thing had unrolled more flatly.

He would like to say once more that members of the Institute staff and all who had been connected with the publication of TRANSACTIONS had in his opinion done a very good job indeed.

*The motion was carried unanimously.*

### *Presentation of Awards for 1954*

The CHAIRMAN presented the following Awards for 1954:

Denny Gold Medal: Mr. L. Baker, D.S.C.

Institute Silver Medal: Mr. F. A. I. Muntz, B.A.

Extra First Class Engineer's Certificate Examination: Mr. D. J. Fowler.

Essay Competition Award: Mr. F. A. Powell.

### *Report of the Scrutineers*

MR. J. P. CAMPBELL (Chairman of Council) said it gave him great pleasure to announce that Mr. H. A. J. Silley had accepted the Presidency for next year.

The CHAIRMAN announced the results of the voting, as follows:

#### *Vice-Presidents:*

##### *London:*

R. K. Craig

J. C. Lowrie

W. Sampson

S. A. Smith, M.Sc.

J. Turnbull, O.B.E.

##### *Southampton:*

Eng. Capt. W. A. Graham, O.B.E., R.N.R.

##### *Hull:*

F. C. M. Heath.

#### *Honorary Treasurer:*

Alfred Robertson, C.C.

#### *Members of Council:*

D. G. Alcock.

Rear-Admiral(E) F. E. Clemitson, C.B. (ret.).

R. W. Cromarty.

R. Munton, B.Sc.

G. M. Sellar, B.Sc.

#### *Associate Member of Council:*

A. C. Hardy, B.Sc.

### *Reappointment of Scrutineers for 1955-56*

MR. STEWART HOGG (Member) said it was a pleasure to him to be asked to propose a vote of thanks to the Scrutineers for work done, and to propose their election for next year. These gentlemen were not on view behind the footlights of the Institute's activities throughout the year. Nor did they find a place on the platform on occasions like this. He would not be surprised if a number of those present did not know them by sight. The results of the poll were even conveyed to the Chair by an attendant.

The work of the Scrutineers was not merely to count the votes. They must first scan the voting papers and reject those papers which did not comply with the By-Laws before summing up the poll. Their work, therefore, was an important feature of the running of the Institute.

This year, he was informed, there had been a heavy poll, due to the amendment of the By-Laws last year and to the increase in membership. He did not know what the poll was, but he was told it was very heavy, so heavy, in fact, that the reserve Scrutineers had to be called in to assist in the count.

## Minutes of Proceedings of the Annual General Meeting

He would therefore like to include these gentlemen in the vote of thanks.

Before moving it formally, however, he would like members to show their continued faith in the integrity of the Scrutineers and to propose that Mr. G. Hayes Garner and Mr. C. J. Hampshire be re-elected and that Mr. L. J. Fulford and Mr. E. R. Hall be re-elected as reserves.

He now had pleasure in formally proposing a vote of thanks to these gentlemen.

*The motion was carried unanimously.*

### Special Business

The CHAIRMAN drew attention to the Resolution on amendments to the new By-Laws. He explained that they fell into three categories.

The first amendment related to By-Law 4, clause (ii), and the words "the rank of Lieutenant (E)" became "a rank not lower than that of Lieutenant"; in other words, three-and-a-half years as Lieutenant and one-and-a-half as Lieutenant Commander.

The second amendment, relating to the dropping of the suffix (E), was in accordance with recent Admiralty instructions.

The third and fourth amendments related to the Honorary Treasurer. The retirement and re-election of the Honorary Treasurer were omitted from the complete revision of the By-Laws and this item was now added to By-Law 47. This necessitated a change also in By-Law 51.

The amendment of By-Law 55 was necessitated by the postponement of the Annual General Meeting by one month. Its object was to ensure that there was adequate time to issue the Annual Report and Accounts to members three weeks before the meeting. The whole programme of the issue of nomination papers, voting papers and so on had been postponed for one month. As the nomination paper was specifically mentioned in By-Law 55 and the date was referred to, an amendment was required.

In the final sentence, authority was asked at this meeting for the Council to deal directly with the Privy Council in regard to any further amendments which might be required by that body, in order to avoid further delay.

Members had had ample time to consider these amendments and he therefore formally moved the adoption of the Resolution.

MR. J. P. CAMPBELL (Chairman of Council) seconded the Resolution, which *was carried unanimously.*

### Vote of Thanks to the President

MR. J. P. CAMPBELL (Chairman of Council) said that it was his very pleasant privilege to propose a vote of thanks to the President, who was very well known to all of them for many years.

Since the inception of the Institute there had been many famous Presidents, all of great eminence in their particular sphere in the shipping industry. Mr. Silley was the Chairman of one of the world-famous shiprepairing firms, and the proud bearer of a name which in international shipping circles was synonymous with integrity and efficiency. It was unlikely that previous holders of this onerous office were of such international repute.

On accepting the Presidency, Mr. Silley's first action was to launch an appeal for £50,000 for the National War Memorial Building. Members had already heard with gratification of the success he had achieved. His Presidential Address was a classic on shiprepairing and would be referred to very often in the days to come, especially in regard to conditions existing in this country in 1954 after a great war.

His valuable contacts in the great City of London had been responsible for giving the Institute an introduction to the City's banking circles, whereby they had been able to arrange very advantageous terms for financing payments for the new building.

He had given ungrudgingly of his valuable time and experience to the Institute. His wise guidance and generous counsel, which had at all times been available, had been accepted and greatly appreciated and good use had been made

of them, particularly by the Honorary Treasurer and himself.

It was extremely pleasing to members who were aware of the great diversity of Mr. Silley's business interests that he had been able to make time available to take such a keen interest in the Institute. He had been a member for a very long time and had throughout the years done much personally and materially to further the interests of the Institute, and of its members, greatly assisting the Institute to reach its eminence in engineering circles.

He would ask the President to convey to Mrs. Silley the thanks of the Institute for the gracious way in which she had performed all the duties the President's lady had to attend to—sometimes, he had no doubt, at very considerable inconvenience.

He had very much pleasure in proposing a vote of thanks to the President on behalf of 8,421 members for the great service he had rendered them.

MR. W. J. FERGUSON, M.Eng. (Vice-Chairman of Council), who seconded the motion, said that after hearing the Scrutineers' report members might feel it would be more appropriate to say Grace. They were very conscious of the great work their President had done during the past year, and the Institute was fortunate in having him as President for the year to come. They did not overlook the fact that Mr. Silley was the second generation to hold this high office in the Institute. It might become a tradition in the Silley family.

It gave him great pleasure to second the motion.

*The motion was carried unanimously.*

The CHAIRMAN: Thank you very much indeed.

### Vote of Thanks to the Council and Officers

MR. S. G. CHRISTENSEN (Member), in proposing a vote of thanks to the Council and Officers, said he thought he would like to say something different on behalf of the members for whom he was speaking. He had therefore taken the opportunity to look back through the Minutes of the Annual General Meeting for the past fifty years. Many things came to light. The first was that many people more capable than he had proposed this vote of thanks in the past. Although he was only a dilettante, perhaps, he would ask the Council to believe that what he lacked in words he made up for in sincerity.

The real purpose of the Institute was to disseminate knowledge, and in going back through the Minutes of past meetings he had found that the number of papers read in the course of the year had gradually increased as the years went on. The subject matter had become far more diverse. In fact, the titles of some of the papers read fifty years ago would have no place today, just as the engine room of yesteryear had no resemblance to the engine room of today.

He would like to reiterate what Mr. H. N. Pemberton said some years ago when performing this pleasant duty: that the word 'Ahead' on the crest really meant something. If they referred back to the papers read and the work done by the Council years ago, they could definitely say that that word was well chosen and well implemented by their Councillors today.

It was perhaps worthy of note that fifty years ago the papers read numbered about eight. They were distributed among something less than one thousand members, whereas the papers today formed a far greater number of titles and were distributed to nearly 9,000 members.

The Annual Report gave some idea of the work done and being done by the Council. The curve of membership was what the mathematicians described as asymptotic. It was going up nearly straight, so the membership figures could be likened to the work done by the Council and Officers. Taking work done as the ordinate and leaving it on the same time base or abscissæ, one could say that the shape of the curve of the graph, or the differential  $dw/dt$  was a very high figure, a figure which had never been achieved before.

He would also like to mention in passing the Year Book. This was a new edition, and twenty years ago, when he was a Student of the Institute, there was a list of members similar to that published in the Year Book today. He for one, and many more members, he thought, hoped that the Year Book would

## *Minutes of Proceedings of the Annual General Meeting*

continue to be published. They had many contacts and they could see where their friends were from the Year Book. He did not know whether other people would agree with him but the advertising matter was almost as good as a list of addresses of firms one did business with, or as good as a trade directory.

He would like to mention something that Mr. McClimont had already mentioned—the good work done by the Secretary and his staff. He would like to couple the name of Mr. Robinson and his staff with the vote of thanks.

Commander H. T. Meadows mentioned last year the visits made by the then Chairman of Council, Mr. Stewart Hogg, to the local Sections; it was pleasing to note that this good work was being carried on by Mr. J. P. Campbell. As an ex-member of the Merseyside and North Western Section, he knew these visits to the Sections and the contact that was made must be most heartening to the local members.

That was all he proposed to say: he did not intend to give a history of the Institute. But he did feel that what he had said might help the Members of Council to realize that members were conscious of the work they and the Officers had done and were very grateful to them for doing it.

He would like to mention in the vote of thanks the office-holders and presidents and honorary secretaries of the local Sections. They must put in a lot of work.

He had great pleasure in formally proposing a vote of thanks to the Councillors and Officers.

MR. R. W. CROMARTY (Member) seconded the motion, which *was carried by acclamation.*

### *Reply by the Chairman of Council*

MR. J. P. CAMPBELL (Chairman of Council) said that it was his privilege to reply on behalf of the Council to the vote of thanks so ably proposed and seconded by Messrs. Christensen and Cromarty. Their generous tribute was greatly appreciated. On taking on the pleasurable duty of Chairman of Council, he had made a gentleman's agreement with the Vice-Chairman, that he would attend to the social side and Mr. Ferguson would do all the work. Under these conditions, it would be quite in order for him to dissociate himself from the working side of the Council, as his conscience would not permit him to accept this tribute, on his own behalf. He could say without fear of contradiction that the thanks which had been so eloquently given were fully merited.

The number of official meetings held last year totalled 130 and at all of these some members of Council were present. If spread over the operative part of the year, nine months, these averaged three-and-a-half meetings per week. At our meetings it was customary to have a number of Vice-Presidents from the various ports and he would like to confirm what he had said previously as to how much their presence and advice was appreciated. The Vice-President for Southampton, Eng. Capt. W. A. Graham, who was unfortunately not present that evening, had been a member of the Institute for over fifty years and probably held the record for regular attendance.

The work of the Council was, of course, greatly facilitated by their extremely competent Secretary, Mr. J. Stuart Robinson, and his very efficient staff. (Hear! Hear!). Much work was performed carried out by committees and, as members were aware, committees were alleged to "make Minutes and waste hours", but these meetings were such that the Council members had to work speedily to get their self-imposed duties completed in the time available.

At the risk of meeting with the displeasure of some of his Council colleagues at the next meeting, he was going to mention one or two names, because he must pay them and their committee members a slight tribute.

Through the years, the Institute had had two outstanding personalities. The first was the late Mr. James Adamson, whose personal friendship he was privileged to enjoy; he was Founder Member and Honorary Secretary for many years. The second was Mr. Alfred Robertson, their Honorary Treasurer, who might be said to have taken over from Mr. Adamson in making his life work the furthering of the interests of the Institute.

The services he had undertaken during the many years he had been Honorary Treasurer and the work achieved as Chairman of the National War Memorial Committee, exceeded any personal service which anyone had heretofore given to the Institute. He was a man of "lofty ideals", because he was engaged in "raising the standard from three storeys to thirteen"!

As far as he knew, Mr. Robertson was the only man in the country who was disappointed with the budget! His first thought was that he was going to suffer a considerable reduction on covenanted subscriptions to the Building Fund through the reduction on income tax. On second thoughts, he felt members might have a little more money available and might give more generously to this Fund. He himself hoped those second thoughts were correct.

The rapidly growing membership was partly due to the work of the various sections throughout this country and in the Commonwealth. It was also due to the extremely interesting papers which were read in this building and published in the TRANSACTIONS, which had already been mentioned. These were of the highest standard and were kept on a practical level, so that every member could fully comprehend the information given. Abstruse academic theories on engineering problems, of interest only to a few University professors, were no longer published.

Everyone must appreciate the work done by the Vice-Chairman, Mr. Ferguson, as Convener, and the members of the Papers and Transactions Committee.

One of the busiest committees was the Membership Committee, under the chairmanship of Mr. Longmuir. Although committee work was usually done in the evening, he had been in the building on one or two occasions in the afternoon and had found them busily engaged on Institute business.

He must also comment—although Mr. Harrison had already done so—on the valuable work which the Junior Section Committee was doing under their Convener, Mr. Clark, which was so well worth while. Quite a number of the members were not so young as they used to be, at least, he himself was not, and anyone who was doing his utmost to encourage those whom they hoped would follow on, deserved thanks and encouragement.

The Guild of Benevolence, he was pleased to say, was able to take a more generous view in assisting colleagues or their relatives who had fallen on hard times. He must pay a tribute to Mr. Lynn Nelson, the Chairman of the Committee, and his colleagues. He was pleased to learn that Mr. Lynn Nelson was rapidly recovering his health and strength after undergoing a very serious operation.

There were a number of committees where the work was not spectacular and possibly not particularly interesting, though very essential. The Council had done quite a lot of useful work. He had thoroughly enjoyed visiting Sections and meeting their colleagues in the various ports and cities.

In conclusion, he would like to thank Messrs. Christensen and Cromarty for the vote of thanks to the Council and Officers. (*Applause.*)

### *Closing Remarks by the Chairman*

The CHAIRMAN said that the President, who took the Chair on this occasion, was usually in the happy position of terminating the proceedings by introducing the President for the ensuing season. This year, for reasons best known to themselves, they had decided that this pleasure should be denied him. He could only say that he was indeed honoured in no uncertain fashion by being asked to act as President for the second year. When one had had a new job for a year and had been associated with a great many people, one knew whether one could possibly go on a little bit longer or whether one wished to retire as quickly as possible. He must confess that this year, with the help and friendship of the Council and so many of the members, it had been no arduous task for him but a very great pleasure.

He was delighted to carry on for a further year and he only hoped that the obvious confidence shown in him would be justified when they met together again this time next year.

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He would like particularly to thank the Chairman of Council, Mr. Campbell, and the Vice-Chairman, Mr. Ferguson, for their help to him personally.

During the year the Honorary Treasurer, Mr. Robertson, and the Secretary, Mr. Robinson, had carried a very considerable burden with the finances of the Institute. There had been a great deal of detail in connexion with the new building in particular. He was not sure Mr. Robertson had not made himself almost ill with the strain of overwork, and he hoped

that he would conserve his strength. The years ahead would certainly be very busy ones. Mr. Robertson would see his life ambition achieved in the starting of the erection of the new building.

He thanked them all very much for their kindness to him and their confidence in appointing him once more as President. He thanked members for their attendance and for their patience in listening to the proceedings.

*The proceedings then terminated.*

# Fifteenth Annual General Meeting of the Education Group

Tuesday, 22nd March 1955

The Fifteenth Annual General Meeting of the Education Group of the Institute was held on Tuesday, 22nd March 1955. The Chair was occupied by Mr. A. T. Lindley, B.Sc. (Associate Member), the retiring Chairman, and afterwards by Mr. H. N. Pemberton (Member of Council), the newly elected Chairman.

The Minutes of the preceding Annual General Meeting held on 19th March 1954, which had been circulated, were approved as a correct record and were signed.

The CHAIRMAN, reporting on the past year's work of the Executive Committee, said that as he ran through the work of the past year in his mind, it seemed that they had had a busy time at their five meetings. Most of it had been spent on routine business and business delegated to the Committee by the Council, or business the Secretary had thought appropriate to the Education Group.

It was agreed that exemption from Section C of the Associate Membership Examination be granted to students who passed the Engineering Administration Examination of the University of Durham.

With regard to the Associate Membership Examination, negotiations were being carried on with the Institutions of Mechanical, Electrical, and Civil Engineers with a view to arranging that their Sections A and B should cover Parts A and B of the Institute's examination in most subjects. There were exceptions where it was felt undesirable that the Institution of Mechanical Engineers should have the same examination.

Power Jets, Ltd., had offered the Institute two scholarships for men to attend their three-week design course. The offer of these scholarships had been accepted, and a decision was awaited as to which applicants had been successful.

This year it had been decided to rest some of the lectures and lecturers in the Junior Lecture programme, while five more subjects had been added. It was being left to the sectional committees to decide which ones they wanted in their areas.

He thanked all the members of the Committee who had helped him throughout the year. As Chairman he had learned a great deal; he had appreciated each of the meetings and had

enjoyed attending them. He wanted it to be put on record how much the past year had meant to him.

On the nomination of the Executive Committee, Mr. H. N. Pemberton was elected Chairman for the 1955/56 session.

*Mr. A. T. Lindley then vacated the Chair, which was taken by Mr. H. N. Pemberton.*

The CHAIRMAN (Mr. Pemberton) said he was not an educationist, and he was afraid he would have quite a lot to learn in the next twelve months.

On the nomination of the Executive Committee, Mr. F. S. Gander, B.Sc., was elected Vice-Chairman for the 1955/56 session.

MR. A. T. LINDLEY said Mr. Gander had apologized for his inability to be present.

The CHAIRMAN said there were certain vacancies on the Executive Committee caused by resignation, Cdr.(E) F. Roberts, O.B.E., D.S.C., R.N.(ret.), and retirement, Mr. D. M. Reid, co-opted, who was now eligible for re-election; Mr. J. Calderwood, Mr. A. T. Lindley, who would continue to serve in a co-opted capacity for one year as immediate past Chairman, and Mr. H. N. Pemberton (who would also be co-opted for one year to serve as Chairman).

The Executive Committee nominated Messrs. C. H. Taylor-Cook, B.Sc., Stewart Hogg, D. M. Reid and H. C. Gibson.

*Messrs. Taylor-Cook, Stewart Hogg, Reid and Gibson were unanimously elected to fill the vacancies on the Executive Committee.*

*It was agreed to hold the next Annual General Meeting on Tuesday, 20th March 1956.*

The proceedings then terminated.



# The Institute of Marine Engineers Guild of Benevolence

## Minutes of Proceedings of the Twenty-first Annual General Meeting

The Annual General Meeting of the Guild of Benevolence was held at 85 Minories, London, E.C.3, on Wednesday, 6th April 1955. In the absence of Mr. W. Lynn Nelson, O.B.E., Chairman of the General Committee, the Chair was occupied by the Honorary Treasurer, Mr. A. Robertson, C.C.

The Minutes of the preceding Annual General Meeting, which had been published, were confirmed and signed.

The CHAIRMAN said that as he had not anticipated taking the Chair he had not prepared any introductory remarks. He did not know whether Mr. Nelson had sent any comments.

The SECRETARY: No.

The CHAIRMAN said that Mr. Nelson had had an operation about ten weeks ago and had had rather a trying time in hospital. He was back home now and no doubt the meeting would wish to send him a message saying how sorry they were to hear of his indisposition and wishing him a speedy recovery.

*This was agreed.*

The SECRETARY, Mr. J. Stuart Robinson, presented the Annual Report (see page xxxiv).

The CHAIRMAN, speaking as Honorary Treasurer, presented the Annual Financial Statement, as follows:—

“Mr. Chairman and Gentlemen,

I commence as usual by reading the auditors’ certificate concerning our accounts for the past year as follows:—

“We have examined the above Balance Sheet with the books and vouchers of the Guild and have obtained all the information we have required. In our opinion it is properly drawn up so as to exhibit a true and correct view of the state of the Guild’s affairs according to the information and explanations given to us and as shown by the books of the Guild”.

(Sgd.) WEST and DRAKE,  
*Chartered Accountants.*

23rd March 1955.

In presenting the accounts to you from year to year it is my duty to point out the variations that occur annually. They seem now to have reached almost a standard type and differ very little periodically. Certainly, the Guild’s finances are in a very flourishing state.

### *Revenue Account*

Members’ subscriptions show an increase of £23 from £337 to £360.

The investment income shows a small increase of £165, from £3,316 to £3,481.

The J. H. Silley Memorial Fund remains the same, whilst the J. M. Dewar Memorial Fund is increased by £91.

General Investments are increased by £59.

Income from ground rents is higher by £14. This is due to the fact that it includes an item for arrears of ground rent collected from the West Ham Corporation of £20 on the Bull Road property. We have sold 29 Bredown Road during the year, whereby the income is actually reduced. We are negotiating the sale of other ground rents at the present time as follows:—

22 Bull Road, West Ham ... ..	for £150
11 Langdale Road, Thornton Heath ... ..	,, £250
27 Bredon Road ... ..	,, £125
1 and 2 Bull Road, West Ham—by compulsory purchase.	
Rochdale Ground Rent being purchased by compulsory purchase by the Rochdale Corporation.	

The following is the table showing the sources of the Guild’s income, similar to the one I have given for the last two years:—

	1951	1952	1953	1954
	£	£ s. d.	£ s. d.	£ s. d.
John H. Silley Memorial Fund	919	918 16 0	918 16 0	918 16 0
James M. Dewar Memorial Fund	934	1,036 5 11	1,051 7 11	1,142 15 5
General Investments ... ..	734	879 18 10	965 7 7	1,024 7 10
Bank Interest ... ..	48	3 14 6	3 16 6	3 18 6
Ground Rents ... ..	389	382 7 6	376 14 2	391 15 5

Relief distributed has risen from £2,536 to £2,933, an increase of £397, with a correspondingly lower surplus of £613 carried to Balance Sheet. You will notice we are gradually approaching the point when we shall be spending all our income on relief.

### *Balance Sheet*

#### *General Investments*

During the year we have purchased £1,200 3½ per cent Conversion Loan, costing £1,048 16s., and £1,000 3½ per cent War Loan, costing £878 6s. 6d. (part of this—£263 10s. was credited to the J. M. Dewar Memorial), our funds under this heading being increased by £1,663, from £29,142 to £30,805.

The John H. Silley Memorial Fund is the same as last year and the James M. Dewar Memorial Fund is increased by £94, covering the value of post-war credits cashed during the year.

The market values of our investments by comparison with the previous year are as follows:—

General Investments ... ..	from £25,663 last year to £29,119
John H. Silley Memorial Fund ... ..	from £25,292 last year to £26,172
James M. Dewar Memorial Fund ... ..	from £23,238 last year to £26,350
Donations actually show	an increase of £133, from £297

## Minutes of Proceedings of Guild of Benevolence Annual General Meeting

to £430. A very pleasing feature is the amount standing to the credit of Life Membership subscriptions, viz. £159.

During the year a bequest was received from the estate of the late Mr. W. E. Todd of Edinburgh, amounting to £101 9s. 4d. after legal charges had been paid. This is included in donations.

### *Relief to Children*

We are now paying the school fees of two children. We have also partly helped with fees for two other children, one of whom has now left school. During the year we had forty-four cases on our books, and we have only turned down one applicant, after very severe investigation.

The final balance sheet totals are £93,032 5s. 6d., an increase above the previous year of £1,297, made up of the total amount standing in the accounts for Life Membership, donations, balance of income over expenditure, and an amount of £94 placed to the credit of the James M. Dewar Memorial Fund, being the value of post-war credits already referred to.

Members will note with interest that the inclusive cost of administration is  $7\frac{1}{2}$  per cent on the total annual income, or 10 per cent of the amount distributed in relief."

CDR. H. T. MEADOWS, D.S.C., R.D., R.N.R., who moved the adoption of the Report and Financial Statement, said that it was gratifying that members' subscriptions showed a slight increase over last year. It was also satisfactory that these subscriptions covered the administration of the Guild, although they were not as high as some people felt they should be. It was nice to note that the income from investments had all been distributed and none of it had gone to administering the Guild. In this respect, it was pleasing that administration cost only 10 per cent of the money distributed. This was highly creditable to all those concerned.

The increased income from the James M. Dewar Memorial Fund reflected great credit on Mr. Robertson, the Honorary Treasurer. He had shown foresight and wisdom in leaving these stocks and shares as they were, because it must have been a great temptation in the past year to capitalize some of that money. After all, as had been pointed out, the Guild depended on income rather than capital.

Finally, he was pleased that Mr. Longmuir's suggestion made at the last Annual General Meeting had been carried out. Members would recall that he had proposed that the notice of the Guild of Benevolence subscription be incorporated with that of the Institute's notice of subscriptions due. He personally welcomed this reminder, and found it no extra effort to make payment, as heretofore.

He formally moved the adoption of the Report and Financial Statement and called upon Mr. Christensen to second the motion.

MR. S. G. CHRISTENSEN seconded the motion and endorsed the remarks made by Commander Meadows.

The CHAIRMAN put to the meeting the motion

THAT the Report and Financial Statement be accepted and entered on the Minutes.

*The motion was carried.*

The CHAIRMAN said it was proposed

THAT the Regulations contained in the document laid upon the table and signed for identification by the Chairman be and they are hereby adopted as the Regulations of the Institute of Marine Engineers Guild of Benevolence to the exclusion of all existing Regulations.

This might sound impressive and seem likely to require care for consideration, but the old By-Laws had been examined carefully and modified in one or two small directions. There were no very serious changes.

The SECRETARY said that the main alterations, as he had already indicated, were in the constitution of the Committee. He thought he was right in saying that ever since the Guild

was constituted, there were two committees—the General Committee and the Executive Committee. It had recently become apparent that there was really no need for these two committees. One committee could perfectly well administer the affairs of the Guild quite adequately. Furthermore, it would simplify the problems of administration.

The arrangement of the Rules had been altered slightly to make the document more logical, and one or two alterations of an editorial nature had been incorporated. The fact that the alterations, small as they were, went more or less throughout the Rules necessitated the presentation of the document *in toto* to the meeting for approval.

*The Rules were considered page by page.*

Page 1

No comments.

Page 2

The CHAIRMAN pointed out that the qualifications for membership and the persons entitled to benefit remained the same.

Page 3

The CHAIRMAN said that while it was a fact that since the inception of the Guild there had been two committees in existence, they had met at one and the same time. Sometimes there was not a quorum when they met separately, but at combined meetings there was always a quorum. For this reason, it was thought preferable to have one committee and to rely upon that one committee to carry out the executive duties of the Guild.

The SECRETARY pointed out that there had always been the problem that the Committee was tied up with the constitution of the Council of the Institute. As members would doubtless remember, committee members were drawn from Vice-Presidents of the Institute, Members of Council, and Members of the Guild, the ratio of retirement being one-third each year. This was out of step with the one-quarter four-year rotation of the Council. It was almost guesswork who was due to retire and who was not. In amending the Rules, they had taken the opportunity to bring these rotations in step with those of the Council to avoid the problem.

Pages 4 and 5

The CHAIRMAN pointed out that five members would constitute a quorum. One word had been altered in (c) which did not affect the meaning.

With regard to investment, the Guild was tied and there could be no alteration. Members would have heard from his report on the James M. Dewar Memorial Fund that Mr. Dewar was very shrewd. He and his wife selected their investments very carefully. Out of twenty-four or twenty-five only one could have been termed bad, or at least not up to a good standard. The Guild, however, was barred from investing money in any but gilt-edged securities and could not take advantage of other securities which would undoubtedly return higher dividends, furthermore preventing the loss of capital value. The Guild had certainly lost in capital value on its gilt-edged securities though the income remained the same. He had spoken to Mr. A. Mackintosh, who was a Companion of the Institute and treasurer of a benevolent institution, and they were considering the same question—whether it might be possible to put forward a clause which might be accepted by the Inland Revenue authorities and which would allow of investments in sound securities. This was simply an idea at the moment; no present action on these lines was intended.

MR. E. G. TAYLOR asked whether it was clear that the Guild was empowered to hold the investments under the James M. Dewar Memorial Fund.

The CHAIRMAN thought they were empowered to do so.

## *Minutes of Proceedings of Guild of Benevolence Annual General Meeting*

There was nothing to say they must be sold. These investments were left to the Guild by will.

MR. E. G. TAYLOR said that he had it in mind to suggest the addition of the words "subject to investments held to date".

The CHAIRMAN said he did not think this was necessary. The Guild was entitled to hold what was given to it. There was no stipulation in the will that the securities must be realized. He would be sorry, for instance, to have to realize shares such as those in Barclay's Bank. They were really gilt-edged in themselves.

MR. E. G. TAYLOR said the point was whether it was clear that the Guild should not be made to realize them.

The CHAIRMAN said there was no reason why the words suggested should not be added, if that was the wish of the meeting.

The SECRETARY said he felt the point was made in that the rule merely stipulated how monies should be invested, not how investments should be received. The issue was avoided and was therefore avoidable.

The CHAIRMAN thought they were pretty safe in the circumstances. Probably the best course would be to leave things alone.

*Pages 6 to 8*

No comments.

*The motion agreeing to the revised Regulations in toto was then put to the meeting and carried unanimously.*

The CHAIRMAN said it gave him great pleasure to move the re-election of Mr. Lynn Nelson as Chairman for the ensuing year.

MR. JAMES TURNBULL, O.B.E., said it was a great pleasure and a privilege to have been asked to propose a vote of thanks to the Committee. It was indeed a pleasure to thank good men for performing good deeds. He had known each member of the Committee for many years, and was not at all surprised to see their names together as they were without exception kindly men with very generous natures.

During the year they had had a busy time. One could see that from the amount of money that had been distributed and the number of cases that had been dealt with. But these things did not just happen without effort. A considerable amount of time must have been given to the work by the

Committee and he was sure everyone would feel that the Committee properly merited a very hearty vote of thanks.

MR. P. S. ROSSITER endorsed these remarks and seconded the motion.

The motion was put to the meeting by Mr. Turnbull and was carried unanimously.

MR. TURNBULL said he would like to associate with the motion the staff of the Institute, particularly Mr. Robinson and Miss Howard, who had made a most valuable contribution to the success of the work.

Mr. Nelson had taken a very keen interest in the work of the Guild. He had plenty of time to do it, as they told him, but none the less it was not always that a man became keenly interested, even though he had the time.

He had been very unfortunate in being debarred for nearly three months from taking an active interest in the Guild, but he was understood to be getting on satisfactorily and should be able to resume his duties in the near future.

*The motion was carried unanimously.*

There being no further nominations, the following members nominated by the Committee were elected for the ensuing session:

Vice-President Mr. J. C. Lowrie.

Member of Council Mr. W. R. Harvey.

Member of Guild Mr. B. C. Curling, O.B.E.

The CHAIRMAN, in expressing thanks on behalf of the members of the Committee, said there was no 'kudos' attached to the job. It might be termed a labour of love, and from his long knowledge of the Committee he knew that every member took it seriously to heart. Every case had to be carefully investigated and one had obviously to be on guard that one was not being 'spruced' at any time. As guardians of the finances which had been subscribed for a specific purpose they had to be careful how they spent them. He did not think anyone had ever had cause to complain of harshness at the hands of the Committee. On the other hand, he did not think anybody had been able to say that they had got away with something which they ought not to have had.

He thanked Mr. Turnbull and Mr. Rossiter for the way in which they had proposed the motion and reiterated, on behalf of the Committee, their expressions of satisfaction with the work of the staff. Mr. Robinson and Miss Howard had both concentrated on and watched the affairs of the Institute very carefully in the administration of this work. It was growing day by day and to be well served by the staff was a very important feature.

On the proposal of the Committee, *it was agreed* that the date of the next Annual General Meeting should be 11th April 1956.

# Twenty-first Annual Report of the Committee

The Committee's report of their work during the twelve months ending 31st December 1954, is again an account of continuing demands on the Guild for the relief of financial hardships among those qualified for such help.

## MEETINGS OF COMMITTEE

Since the date of the preceding report there have been twelve Committee Meetings.

## APPLICATIONS FOR RELIEF

A summary of the cases dealt with during 1954 is given below. In thirty-five of the cases relief was continued from the preceding year, and letters of appreciation are continually received from the recipients.

## MEMBERSHIP

Thirteen Life and eighteen Subscribing Members were elected during the year and, allowing for losses by death and resignation, the total membership of the Guild at the 31st December 1954 was 234 Life Members and 414 Subscribing

Members. Of the latter, 105 covenanted to continue their subscriptions for seven years, thus supplementing the Guild's income without extra cost to themselves.

## REGULATIONS OF THE GUILD

During the year consideration has been given to the Regulations of the Guild, mainly appertaining to the constitution of the Committee, also to the qualification for membership and persons entitled to benefit. Regarding the first-mentioned alteration, if this is adopted by this meeting, the affairs of the Guild will be governed by one Committee instead of a General and an Executive Committee as heretofore.

In connexion with qualifications for Membership of the Guild and persons entitled to benefit, this will cover not only the Ministry of Transport and Civil Aviation Certificate of Competency but also its equivalent.

W. LYNN NELSON,  
*Chairman of Committee*

J. STUART ROBINSON, *Secretary.*

## PARTICULARS OF THE CASES ASSISTED BY THE GUILD

from 1st January to 31st December 1954

<i>Case No.</i>	<i>Age</i>	<i>Qualification</i>	<i>Amount of Relief Granted</i>			<i>Case No.</i>	<i>Age</i>	<i>Qualification</i>	<i>Amount of Relief Granted</i>		
			£	s.	d.				£	s.	d.
1	76	Widow of former member of the Institute ... ..	80	0	0	150	89	Member of the Institute ... ..	28	0	0
6	73	Daughter of marine engineer ... ..	67	0	0	156	70	Widow of marine engineer ... ..	67	0	0
13	58	Widow of former member of the Institute ... ..	127	0	7	158	56	Widow of former member of the Institute ... ..	57	0	0
44	76	Widow of marine engineer ... ..	34	10	0	159	65	Marine engineer ... ..	44	0	0
47	74	Widow of marine engineer ... ..	41	0	0	160	5 and 12	Children of former member of the Institute ... ..	140	3	8
51	75	Widow of former member of the Institute ... ..	36	6	0	168	17	Child of member of the Institute ... ..	25	0	0
71	63	Marine engineer ... ..	57	0	0	169	66	Member of the Institute and Guild ... ..	98	2	0
80	75	Sister of former member of the Institute ... ..	80	0	0	170	60	Widow of former member of the Institute ... ..	57	0	0
85	81	Widow of marine engineer ... ..	67	0	0	173	58	Widow of former member of the Institute ... ..	5	0	0
101	88	Widow of marine engineer ... ..	83	18	0	176	85	Marine engineer ... ..	69	12	0
103	56	Widow of marine engineer ... ..	49	4	0	178	69	Member of the Institute ... ..	189	0	0
114	79	Widow of marine engineer ... ..	52	0	0	183	39	Widow and children of former member of the Institute ... ..	25	0	0
120	65	Marine engineer ... ..	119	0	0	184	83	Former member of the Institute ... ..	42	6	0
123	20 and 16	Children of former member of the Institute ... ..	128	0	0	185	81	Former member of the Institute ... ..	77	19	0
125	57	Member of the Institute ... ..	15	0	0	186	78	Member of the Institute ... ..	161	0	0
131	61	Widow of marine engineer ... ..	59	10	0	187	50	Member of the Institute ... ..	22	17	0
133	65 and 75	Daughters of former member of the Institute ... ..	96	5	0	188	27	Widow and children of former member of the Institute ... ..	112	6	0
134	85	Widow of former member of the Institute ... ..	67	0	0	190	54	Widow of former member of the Institute ... ..	37	8	0
138	51	Widow of marine engineer ... ..	53	15	0	191	64	Widow of former member of the Institute ... ..	50	0	0
141	58	Daughter of marine engineer ... ..	18	13	0	192	47	Widow of former member of the Institute ... ..	30	0	0
143	46	Widow of former member of the Institute ... ..	83	0	0	193	78	Widow of former member of the Institute ... ..	25	0	0
144	62	Widow of former member of the Institute ... ..	70	0	0	194	40	Daughter of former member of the Institute ... ..	50	0	0
145	68	Widow of former member of the Institute ... ..	31	0	0						

# THE INSTITUTE OF MARINE ENGINEERS GUILD OF BENEVOLENCE

## Balance Sheet, 31st December 1954

1953 £	£ s. d.	£ s. d.	1953 £	£ s. d.	£ s. d.		
<b>Capital Account</b>			<b>General Investments</b>				
28,586	Balance at 31st December, 1953 ...	28,882 8 2	29,142				
—	Life Membership Subscriptions ...	159 0 0					
297	Donations ... ..	430 6 1					
28,883		29,471 14 3					
<b>Revenue Account</b>			<b>Current Assets</b>				
9,454	Balance at 31st December, 1953 ...	10,299 2 5	8,968				
845	Surplus for the year ... ..	613 11 3	38,110				
10,299		10,912 13 8					
<b>Sundry Creditors</b>			<b>The John Silley Memorial Fund Investments</b>				
28	Subscriptions received in advance ...	23 1 6	493				
214	Expenses ... ..	218 17 9	572				
242		241 19 3	93				
39,424		40,626 7 2	156				
			1,314				
			39,424				
<b>The John Silley Memorial Fund</b>			<b>The James M. Dewar Memorial Fund Investments</b>				
29,008	Balance at 31st December, 1953 ...	29,008 6 0	28,986				
<b>The James M. Dewar Memorial Fund</b>			<b>Government Securities</b>				
23,303	Balance at 31st December, 1953 ...	23,303 8 4	(Market Value £26,172)				
—	Received during the year ... ..	94 4 0	22				
23,303		23,397 12 4	29,008				
<b>REPORT OF THE AUDITORS TO THE MEMBERS OF THE INSTITUTE OF MARINE ENGINEERS GUILD OF BENEVOLENCE</b>			<b>Uninvested Cash</b>				
<p>We have examined the above Balance Sheet with the Books and Vouchers of the Guild and have obtained all the information we have required. In our opinion it is properly drawn up so as to exhibit a true and correct view of the state of the Guild's affairs according to the information and explanations given to us and as shown by the books of the Guild.</p> <p style="text-align: right;">WEST &amp; DRAKE, Chartered Accountants.</p> <p>SARDINIA HOUSE, 52, LINCOLN'S INN FIELDS, LONDON, W.C.2. 23rd March, 1955.</p>			(Market Value £26,350)				
			11,748				
			11,529				
			26				
			23,303				
£91,735		£93,032 5 6	£91,735				
				£93,032 5 6			

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Annual Report of the Guild of Benevolence

## REVENUE ACCOUNT for the year ended 31st December 1954

1953	£	£ s. d.	£ s. d.	1953	£	£ s. d.	£ s. d.
2,536	Relief Distributed	...	...	2,933	15	3	
<b>Administration Expenses</b>				<b>Members Subscriptions</b>			
183	Office Facilities and Clerical Assistance	...	192 2 3	337	...	...	360 11 6
22	Printing and Stationery	...	30 15 4	<b>Investment Income</b>			
17	Postage	...	17 13 2	Interest and Dividends			
26	Audit Fee	...	26 5 0	919	John Silley Memorial Fund	...	918 16 0
8	Legal and Professional Charges	...	12 7 7	1,051	James M. Dewar Memorial Fund	...	1,142 15 5
16	Sundries	...	15 14 10	965	General Investments	...	1,024 7 10
				4	Bank Interest	...	3 18 6
				377	Ground Rents	...	391 15 5
272			294 18 2	3,316			3,481 13 2
845	Surplus for the Year carried to Balance Sheet	...	613 11 3				
<u>£3,653</u>			<u>£3,842 4 8</u>				<u>£3,842 4 8</u>

Table showing extracted items of the Account on a comparative basis over ten years

	1945		1946		1947		1948		1949		1950		1951		1952		1953		1954	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Interest on Investments	723	13 6	796	17 4	1,083	1 7	1,219	1 3	1,433	2 10	2,222	16 8	2,635	15 6	2,838	15 3	2,939	8 0	3,089	17 9
Ground Rents	404	11 9	405	10 10	400	5 10	408	1 1	365	18 10	381	8 2	388	15 10	382	7 6	376	14 1	391	15 5
Members' Subscriptions	380	10 0	355	15 9	688	0 11	481	18 3	426	5 8	397	19 10	378	6 5	365	11 11	337	6 9	360	11 6
Total Revenue	1,797	5 9	1,866	18 11	2,194	11 5	2,148	8 8	2,275	12 10	3,002	4 8	3,402	17 9	3,586	14 8	3,653	8 10	3,842	4 8
Donations	340	14 3	307	15 4	358	12 2	348	13 11	385	19 10	337	2 7	724	5 6	348	0 8	296	11 11	430	6 1
Expenditure	1,693	11 10	1,734	5 5	1,643	12 9	1,735	8 2	1,884	19 0	1,918	0 4	2,340	15 10	2,595	15 3	2,808	1 7	3,228	13 5
Investments	24,931	2 8	25,631	17 2	26,237	3 2	26,237	18 10	26,012	6 3	27,492	10 1	35,109	4 9	36,996	0 3	38,109	14 3	39,648	6 9
" John H. Silley Fund	16,465	4 0	18,051	5 0	22,390	19 4	26,447	14 4	29,008	6 0	29,008	6 0	29,008	6 0	29,008	6 0	29,008	6 0	29,008	6 0
" James M. Dewar Bequest	—	—	—	—	—	—	—	—	1,731	15 3	21,082	2 10	23,287	19 6	23,303	8 4	23,303	8 4	23,397	12 4
Income Tax Recoverable	407	1 9	374	0 8	987	10 4	640	13 5	542	8 10	721	17 7	901	13 8	717	19 0	571	8 6	603	3 6
Cash and Bank Balances	1,415	9 4	979	4 8	582	0 8	787	10 4	432	3 5	785	18 1	688	16 0	321	19 4	493	4 10	171	6 4

# The Marine Engineers' National War Memorial Building Fund

List of subscribers to 18th May 1955

## DONATIONS FROM COMPANIES AND ASSOCIATIONS

Name	£	s.	d.	Name	£	s.	d.
Aberdeen and Commonwealth Line ... ..	100	0	0	Beal and Son, Ltd. ... ..	6	6	0
Aberdeen Coal and Shipping Co., Ltd. ... ..	10	10	0	Bearcreek Oil and Shipping Co., Ltd. ... ..	250	0	0
Acheson Colloids, Ltd. ... ..	2	0	0	Beldam Asbestos Co., Ltd. ... ..	25	0	0
Acton Technical College 2nd Year Diploma (Marine) Students ... ..	2	2	6	Beldam Packing and Rubber Co., Ltd. ... ..	105	0	0
Air Control Installations, Ltd. ... ..	5	5	0	Bell's Asbestos and Engineering, Ltd. ... ..	10	10	0
Aiton and Co., Ltd. ... ..	100	0	0	Bibby Brothers and Company ... ..	300	0	0
Albyn Line, Ltd. ... ..	10	10	0	Billington and Newton, Ltd. ... ..	5	5	0
Aldgate Ward Club ... ..	21	0	0	Billmeir and Co., Ltd., J. A. ... ..	52	10	0
Alexander (Machinery) Ltd., George H....	3	3	0	Birkett and Sons, Ltd., T. M. ... ..	5	5	0
Alexander, Ltd., W. H. J. ... ..	10	10	0	Blakeborough and Sons, Ltd., J. ... ..	26	5	0
Alfa Laval Co., Ltd. ... ..	50	0	0	Blue Star Line, Ltd. ... ..	460	0	0
Allen, Sons and Co., Ltd., W. H. ... ..	1,100	0	0	Blundells and Crompton, Ltd. ... ..	105	0	0
Alley and Maclellan, Ltd. ... ..	10	0	0	Bolton Steam Shipping Co., Ltd....	2	2	0
Anchor Line, Ltd. ... ..	105	0	0	Booker Bros., McConnell and Co., Ltd. ...	3	3	0
Andrews and Cameron, Ltd. ... ..	3	3	0	Booth Steamship Co., Ltd. ... ..	25	0	0
Anglo-American Oil Co., Ltd. ... ..	525	0	0	Bowring Steamship Co., Ltd. ... ..	250	0	0
Anglo-Danubian Transport Co., Ltd. ... ..	5	5	0	Boydell and Co., Ltd., E. ... ..	5	5	0
Anglo-Saxon Petroleum Co., Ltd. ... ..	807	10	0	Brigham and Cowan, Ltd. ... ..	50	0	0
Angus and Co., Ltd., George ... ..	52	10	0	Britain Steamship Co., Ltd. ... ..	105	0	0
Ansell, Jones and Co., Ltd. ... ..	5	5	0	British and Continental Steamship Company	25	0	0
Armstrong, H. and W. ... ..	5	0	0	British Arc Welding Co., Ltd. (per R. S. Kennedy) ... ..	50	0	0
Arnott, Young and Co., Ltd., W. H. ... ..	2	2	0	British Channel Islands Shipping Co., Ltd. ...	5	5	0
Ary Shipping, Ltd. ... ..	5	5	0	British India Steam Navigation Co., Ltd. ...	1,000	0	0
A/S <i>Titan</i> of Copenhagen, and The Alexandra Separator Co., Ltd. ... ..	50	0	0	British India Steam Navigation Co., Ltd.— Engineer Officers (per G. K. Cruickshank)	41	0	7
Asiatic Steam Navigation Co., Ltd. ... ..	250	0	0	British Insulated Callenders Cables, Ltd. ...	105	0	0
Associated British Oil Engines (Marine), Ltd. ...	77	10	0	British Paints, Ltd....	5	5	0
Athel Line, Ltd. ... ..	105	0	0	British Phosphate Commissioners, Ltd. ... ..	1	1	0
Atlas Metal Co., Ltd., The ... ..	10	10	0	British Tanker Co., Ltd. ... ..	1,525	0	0
Atlas Preservative Co., Ltd. ... ..	21	0	0	British Transformer Oil and Lubricants, Ltd. ...	2	2	0
Austin, Ltd., Gilbert ... ..	2	2	0	Broady and Son, Ltd., W....	10	10	0
Australasian United Steam Navigation Co., Ltd.	150	0	0	Brocklebank, Ltd., T. and J. ... ..	200	0	0
Australian Oriental Line, Ltd. ... ..	26	5	0	Broken Hill Proprietary Co., Ltd. ... ..	100	0	0
Australind Steam Shipping Co., Ltd. ... ..	100	0	0	Brotherhood, Ltd., Peter ... ..	52	10	0
Auto-Klean Strainers, Ltd. ... ..	25	0	0	Brown and Sons (Huddersfield), Ltd., David ...	5	5	0
Ayr Engineering and Construction Company ...	10	10	0	Brown and Co. (Clydebank), Ltd., John... ..	1,000	0	0
Axia Fans, Ltd. ... ..	200	0	0	Brown, Ltd., A. and R. ... ..	26	5	0
Babcock and Wilcox, Ltd. ... ..	250	0	0	Brown Brothers and Co., Ltd. ... ..	150	0	0
Badger, Ltd., W. ... ..	105	0	0	Brown, Ltd., S. G....	10	10	0
Bamford and Co., Ltd., F....	2	2	0	Bryce Fuel Injections, Ltd. ... ..	5	5	0
Bank Line, Ltd. ... ..	1,000	0	0	Buck and Hickman, Ltd. ... ..	5	5	0
<i>Barala</i> —Engineer Officers (per H. H. Winch) ...	4	0	0	Bulk Oil Steamship Co., Ltd. ... ..	100	0	0
Barclay, Curle and Co., Ltd. ... ..	800	0	0	Bullard, King and Co., Ltd. ... ..	52	10	0
Barline Transport, Ltd. ... ..	5	5	0	Bull's Metal and Melloid Co., Ltd. ... ..	26	5	0
Beacon Shipping Lines, Ltd. ... ..	5	5	0	Buries Markes, Ltd. ... ..	5	5	0
				Burntisland Shipbuilding Co., Ltd. ... ..	105	0	0

*The Marine Engineers' National War Memorial Building Fund*

Name	£	s.	d.	Name	£	s.	d.
Burrard Dry Dock Co., Ltd. ... ..	50	0	0	Elders and Fyffes, Ltd. ... ..	78	15	0
Burton, Griffiths and Co., Ltd. ... ..	5	5	0	Ellerman Lines, Ltd. ... ..	2,000	0	0
Caledon Shipbuilding and Engineering, Co., Ltd.	105	0	0	Ellerman's Wilson Line, Ltd. ... ..	250	0	0
Canadian Pacific Steamships, Ltd. ... ..	100	0	0	English Electric Co., Ltd. ... ..	250	0	0
Cammell Laird and Co., Ltd. ... ..	500	0	0	Euxine Shipping Co., Ltd....	10	10	0
Capper and Co., Ltd., Alexander ... ..	25	0	0	Everard and Sons, Ltd., F. T. ... ..	105	0	0
Carborundum Co., Ltd. ... ..	25	0	0	Evershed and Vignoles, Ltd. ... ..	10	0	0
Cardiff Junction Dry Dock and Engineering Co., Ltd. ... ..	100	0	0	Fafalios, Ltd. ... ..	25	0	0
Carruthers and Co., Ltd., J. H. ... ..	5	5	0	Fairfield Charitable Trust, The ... ..	250	0	0
Cementation Co., Ltd. ... ..	25	0	0	Fairfield Shipbuilding and Engineering Co., Ltd.	500	0	0
Chadburns (Liverpool), Ltd. ... ..	25	0	0	Federal Steam Navigation Co., Ltd. ... ..	1,000	0	0
Chemical and Insulating Co., Ltd. ... ..	10	10	0	Ferguson and Timpson, Ltd. ... ..	77	10	0
China Mutual Steam Navigation Co., Ltd. ... ..	1,000	0	0	Fibreglass, Ltd. ... ..	105	0	0
Churchill and Co., Ltd., Charles ... ..	100	0	0	Fielding and Platt, Ltd. ... ..	10	10	0
Clan Line Steamers, Ltd. ... ..	2,000	0	0	Fisher and Sons, Ltd., James ... ..	26	5	0
Clarke, Chapman and Co., Ltd. ... ..	150	0	0	Foster Wheeler, Ltd. ... ..	105	0	0
Clydesdale Engineering Works ... ..	5	5	0	France, Fenwick and Co., Ltd., William...	105	0	0
Coast Lines, Ltd. ... ..	100	0	0	Frances Steam Ship Co., Ltd. ... ..	12	10	0
Coker and Co., Ltd., A. ... ..	3	3	0	Furness Withy and Co., Ltd. ... ..	500	0	0
Cole, Ltd., E. K. ... ..	10	10	0	General Electric Co., Ltd. ... ..	150	0	0
College of Technology and Commerce, Cardiff: Marine Engineering Students ... ..	3	12	6	General Steam Navigation Co., Ltd. ... ..	250	0	0
Colvin-Smith, Ltd....	5	5	0	Germ Lubricants, Ltd. ... ..	3	3	0
Common Bros., Ltd. ... ..	50	0	0	German and Milne ... ..	2	2	0
Constantine Steam Ship Line, Ltd., Joseph ... ..	300	0	0	Glen and Co., Ltd. ... ..	25	0	0
Cook, Welton and Gemmell, Ltd....	2	2	0	Glen Line, Ltd. ... ..	1,000	0	0
Cork Manufacturing Co., Ltd. ... ..	5	5	0	Globe Engineering Works, Ltd., Cape Town ... ..	50	0	0
Cory and Son, Ltd., William ... ..	512	10	0	Goodlass, Wall and Co., Ltd. ... ..	315	0	0
Cossor Radar, Ltd. ... ..	5	5	0	Goole Shipbuilding and Repairing Co., Ltd. ... ..	25	0	0
Coventry Climax Engines, Ltd. ... ..	2	2	0	Goulandris Bros., Ltd. ... ..	26	5	0
Coventry Diesel Engines, Ltd. ... ..	2	2	0	Gould's Foundries, Ltd. ... ..	10	10	0
Crawford and Co., A. ... ..	5	0	0	Gow, Harrison and Company ... ..	25	0	0
Crawford Shipping Co., Ltd. ... ..	5	5	0	Grand Union (Shipping), Ltd. ... ..	10	10	0
Crittall and Co., Ltd., Richard ... ..	5	5	0	Gray and Co., Ltd., William ... ..	100	0	0
Cruickshank and Co., Ltd. ... ..	5	5	0	Gray, Dawes and Co., Ltd. ... ..	100	0	0
Currie Line, Ltd. ... ..	25	0	0	Gray and Co., Ltd., William ... ..	25	0	0
Cunard Steam Ship Co., Ltd. ... ..	1,000	0	0	Grayson, Rollo and Clover Docks, Ltd. ... ..	105	0	0
Cunard White Star, Ltd. ... ..	1,000	0	0	Gregson and Co., Ltd. ... ..	105	0	0
Cyc-Arc, Ltd. ... ..	2	2	0	Green and Silley Weir, Ltd., R. and H. ... ..	650	0	0
Dalhousie Steam and Motor Ship Co., Ltd. ... ..	10	10	0	Green and Son, Ltd., E. ... ..	100	0	0
Davey, Paxman and Co., Ltd. ... ..	25	0	0	Greenwell and Co., Ltd., T. W. ... ..	10	0	0
Davies and Newman, Ltd. ... ..	10	10	0	Guinness, Son and Co., Ltd., Arthur ... ..	25	0	0
Denholm Line Steamers, Ltd. ... ..	25	0	0	<i>Gujarat</i> —Engineers and Electricians ... ..	1	18	0
Denny and Brothers, Ltd., William ... ..	200	0	0	Hain Steamship Co., Ltd. ... ..	500	0	0
Dennystown Forge Company ... ..	25	0	0	Halal Shipping Co., Ltd. ... ..	10	10	0
Dewrance and Co., Ltd. ... ..	52	10	0	Halifax Shipyards, Ltd. ... ..	50	0	0
Diamond Blower Co., Ltd. ... ..	10	10	0	Hall and Sons, Ltd., J. P. ... ..	50	0	0
Dick and Co., Ltd., W. B. ... ..	52	10	0	Hall, Ltd., J. and E. ... ..	250	0	0
Dixon and Son, Ltd., S. ... ..	5	5	0	Hall, Russell and Co., Ltd. ... ..	50	0	0
Dodman and Co., Ltd., Alfred ... ..	5	0	0	Harker, Ltd., John ... ..	10	10	0
Donaldson Line, Ltd. ... ..	50	0	0	Harland and Wolff, Ltd. ... ..	2,000	0	0
Donkin and Co., Ltd. ... ..	5	5	0	Harris and Dixon, Ltd. ... ..	25	0	0
Dorey and Sons, Ltd., Onesimus ... ..	10	10	0	Harrison, Ltd., J. and C. ... ..	10	10	0
Dover Navigation Co., Ltd. ... ..	25	0	0	Harrison, T. and J. ... ..	250	0	0
Doxford and Sons, Ltd., William ... ..	750	0	0	Harrisons (London), Ltd. ... ..	5	5	0
Drypool Engineering and Dry Dock Co., Ltd....	2	2	0	Harvey and Co. (London), Ltd., G. A. ... ..	250	0	0
Drysdale and Co., Ltd. ... ..	750	0	0	Harvey, Trinder and Van Ommeren, Ltd. ... ..	25	0	0
Duncan and Co., Ltd., J. T. ... ..	12	10	0	Hastie and Co., Ltd., John ... ..	100	0	0
Dundee, Perth and London Shipping Co., Ltd.	25	0	0	Hawkins and Tipson, Ltd. ... ..	15	15	0
Dunlop and Sons, Thomas ... ..	5	5	0	Hawthorn, Leslie and Co., Ltd., R. and W. ... ..	1,000	0	0
Dunston, Ltd., Richard ... ..	25	0	0	Hayes, Ltd., R. S. ... ..	5	5	0
Eagle Oil and Shipping Co., Ltd. ... ..	250	0	0	Hayward-Tyler and Co., Ltd. ... ..	1	1	0
East Coast Steamship Co., Ltd. ... ..	1	1	0	Heenan and Froude, Ltd. ... ..	10	10	0
Eastern and Australian Steam Ship Co., Ltd. ... ..	150	0	0	Henderson and Company, P. ... ..	300	0	0
E.C.D., Ltd. ... ..	50	0	0	Hepworth and Grandage ... ..	10	10	0
Edison Swan Cables, Ltd....	10	10	0	Herbert, Ltd., Edward G. ... ..	1	1	0
Elder Dempster Lines, Ltd. ... ..	500	0	0	Hindustan Steam Shipping Co., Ltd. ... ..	26	5	0
				Ho Hong Steam Ship Co., Ltd. ... ..	100	0	0
				Hogarth and Sons, Ltd., H. ... ..	250	0	0



The Marine Engineers' National War Memorial Building Fund

Name	£	s.	d.	Name	£	s.	d.
Holmes and Co., Ltd., Charles D. ... ..	2	2	0	Manganese Bronze and Brass Co., Ltd. ... ..	52	10	0
Holt and Company (Liverpool), Ltd., John ...	100	0	0	Mann (Shipping), Ltd., H. G. ... ..	5	5	0
Houlder Brothers and Co., Ltd. ... ..	350	0	0	Marine and Industrial Lubricants, Ltd. ... ..	26	5	0
Houseman and Thompson, Ltd. ... ..	5	5	0	Marine Instruments, Ltd. ... ..	25	0	0
Howden and Co., Ltd., James ... ..	100	0	0	Massey and Sons, Ltd., W. A. ... ..	1	1	0
Howson and Co., Ltd., Charles ... ..	20	0	0	Mather and Platt, Ltd. ... ..	10	10	0
Hoyt Metal Company of Great Britain, Ltd. ...	10	10	0	Matthews, Wrightson, Burbidge, Ltd. ... ..	9	9	0
Hudson Steam Ship Co., Ltd. ... ..	5	5	0	Mazagon Dock, Ltd. ... ..	100	0	0
Hull Gates Shipping Co., Ltd. ... ..	2	2	0	Mazagon Dock, Ltd.—Staff ... ..	16	10	0
Humber Graving Dock and Engineering Co., Ltd. ... ..	100	0	0	Medomsley Steam Shipping Co., Ltd. ... ..	5	5	0
Hunting and Son, Ltd. ... ..	100	0	0	Mercantile Dry Dock Co., Ltd. ... ..	25	0	0
Hyland, Ltd. ... ..	10	10	0	Mersey Ports Stevedoring Co., Ltd. ... ..	2	2	0
Ince Forge Company ... ..	5	5	0	Metal Industries (Salvage), Ltd. ... ..	10	10	0
Indo-China Steam Navigation Co., Ltd....	50	0	0	Metropolitan-Vickers Electrical Co., Ltd. ...	10	10	0
Institute of Marine Engineers—Cardiff and District Local Section ... ..	10	10	0	Michalinos and Co., Ltd. ... ..	10	10	0
Irvin and Sellers, Ltd. ... ..	5	5	0	Middle Docks and Engineering Co., Ltd. ...	105	0	0
Jacobs and Co., Ltd., John I. ... ..	125	0	0	Mirrlees, Bickerton and Day, Ltd. ... ..	2	2	0
Jefferies and Sons, Ltd., J. ... ..	26	5	0	Mitchell, Cotts and Company ... ..	157	10	0
Jenkins and Co., Ltd., Robert ... ..	5	5	0	Modern Wheel Drive, Ltd. ... ..	10	10	0
John I. Jacobs and Co., Ltd. ... ..	125	0	0	Mogul Line, Ltd. ... ..	200	0	0
Jones and Co., Richard W. ... ..	10	10	0	Moller Line (U.K.), Ltd. ... ..	10	10	0
Jones and Sons, Frederick ... ..	5	5	0	Moor Line, Ltd. ... ..	52	10	0
Keenan and Co., Ltd., Matthew ... ..	10	10	0	Moss and Company, H. E. ... ..	100	0	0
Kelvin and Hughes (Marine), Ltd. ... ..	20	0	0	Moss Gear Co., Ltd. ... ..	5	5	0
Key Engineering Co., Ltd. ... ..	2	2	0	Moss Hutchinson Line, Ltd. ... ..	250	0	0
Kincaid and Co., Ltd., John G. ... ..	250	0	0	Motor Ship ... ..	25	0	0
King, Ltd., G. W. ... ..	5	5	0	Mountstuart Dry Docks, Limited... ..	305	0	0
Kingston Technical College Apprentice-Students	2	2	0	Mungo Campbell and Co., Ltd. ... ..	50	0	0
Kingston upon Hull and East Midlands Section				Murray Wilson and Co., A., and Clyde Blowers, Ltd. ... ..	5	0	0
Annual Dinner Fund... ..	10	10	0	National Benzole Co., Ltd. ... ..	105	0	0
Klinger, Ltd., Richard ... ..	260	0	0	National Gas and Oil Engine Co., Ltd. ... ..	50	0	0
Kuwait Oil Co., Ltd. ... ..	10	10	0	Netherlands Dock and Shipbuilding Company... ..	5	0	0
Lambert Bros., Ltd. ... ..	100	0	0	Nelson and Company, C. B. ... ..	50	0	0
Lancashire Shipping Co., Ltd. ... ..	10	10	0	New Zealand Institute of Marine and Power Engineers ... ..	10	10	0
Lancaster and Tonge, Ltd. ... ..	10	10	0	New Zealand Shipping Co., Ltd. ... ..	1,000	0	0
Larrinaga Steamship Co., Ltd. ... ..	25	0	0	Nicholson, Ltd., Edward ... ..	2	2	0
Leech, Brain and Co., Ltd....	25	0	0	Nisbet and Company, George ... ..	30	0	0
Leeds and Bradford Boiler Co., Ltd. ... ..	1	1	0	Niven, Nelson and Matthews, Ltd. ... ..	10	10	0
Limmer and Trinidad Lake Asphalt Co., Ltd. ...	2	2	0	Nomikos (London), Ltd. ... ..	5	5	0
Lincoln Electric Co., Ltd. ... ..	3	0	0	Norris Warning Co., Ltd. ... ..	5	5	0
Linolite, Ltd. ... ..	2	2	0	North Shipping Co., Ltd. ... ..	100	0	0
Lister (Marine Sales), Ltd., R. A. ... ..	50	0	0	Northern Aluminium Co., Ltd. ... ..	10	10	0
Lloyd's, Corporation of ... ..	100	0	0	Northern Co-operative Society, Ltd. ... ..	2	2	0
Lloyd's Register of Shipping ... ..	1,000	0	0	Nourse, Ltd., James ... ..	250	0	0
Lobitos Oilfields, Ltd. ... ..	100	0	0	Novocastria Shipping Co., Ltd. ... ..	5	5	0
Lockington and Co., Ltd., S. ... ..	2	2	0	Ocean Steam Ship Co., Ltd. ... ..	3,000	0	0
Lockwood and Carlisle, Ltd. ... ..	10	0	0	Orient Steam Navigation Co., Ltd. ... ..	1,000	0	0
L.N.E., L.M.S., G.W., and S. Railways	105	0	0	Overseas Towage and Salvage Co., Ltd. ... ..	5	5	0
London and Rochester Trading Company	20	0	0	Pacific Steam Navigation Company ... ..	100	0	0
London Graving Dock Co., Ltd....	52	10	0	Parsons Marine Steam Turbine Co., Ltd. ... ..	500	0	0
London Scaling Co., Ltd. ... ..	250	0	0	Pearson and Knowles Engineering Co., Ltd. ...	25	0	0
London Shipping Orchestral Society ... ..	20	0	0	Peninsular and Oriental Steam Navigation Com- pany ... ..	1,000	0	0
London Welding Co., Ltd. ... ..	5	5	0	Permutit Co., Ltd. ... ..	10	10	0
Lusi, Ltd., A. ... ..	5	5	0	Philip and Son, Ltd. ... ..	105	0	0
Luton and Son., Ltd., J. T. ... ..	52	10	0	Plenty and Son, Ltd. ... ..	10	10	0
Lynn and Co., Ltd., John ... ..	52	10	0	Pollock, Sons and Co., Ltd., James ... ..	21	0	0
MacAndrews and Co., Ltd. ... ..	250	0	0	Polytechnic Engineering Society ... ..	2	2	0
Maclay and McIntyre, Ltd. ... ..	100	0	0	Pool Shipping Co., Ltd. ... ..	10	0	0
Macphie and Co., Ltd., John J. ... ..	3	3	0	Port Line, Ltd. ... ..	1,000	0	0
Macrome, Ltd. ... ..	5	5	0	Power Plant Co., Ltd. ... ..	52	10	0
Malone Instrument Co., Ltd. ... ..	5	5	0	Price's Lubricants, Ltd. ... ..	10	10	0
Manchester Dry Docks, Ltd. ... ..	105	0	0	Prince of Wales Dry Dock Co. (Swansea), Ltd....	52	10	0
Manchester Liners, Ltd. ... ..	125	0	0	Pyrene Co., Ltd. ... ..	26	5	0
Manchester Oil Refinery, Ltd. ... ..	10	10	0	Quasi-Arc Co., Ltd. ... ..	10	10	0

## The Marine Engineers' National War Memorial Building Fund

Name	£	s.	d.	Name	£	s.	d.
Raeburn and Verel, Ltd. ... ..	25	0	0	Strick Line, Ltd. ... ..	250	0	0
Rankin and Blackmore, Ltd. ... ..	50	0	0	Sulzer Bros. (London), Ltd., and Sulzer Bros., Ltd., Switzerland ... ..	500	0	0
Readhead and Sons, Ltd., John ... ..	210	0	0	Summerson and Sons, Ltd., Thomas ... ..	2	2	0
Redgate Steamship Co., Ltd. ... ..	5	5	0	Superheater Co., Ltd. ... ..	25	0	0
Red Hand Compositions Company ... ..	10	0	0	Sutherland and Co., Ltd., B. J. ... ..	50	0	0
Renold and Coventry Chain Co., Ltd. ... ..	10	0	0	Swan, Hunter and Wigham Richardson, Ltd. ... ..	1,000	0	0
Renton and Fisher ... ..	5	5	0	Swinney Bros., Ltd. ... ..	10	10	0
Richardsons, Westgarth and Co., Ltd., North Eastern Marine Engineering Co., Ltd., George Clark, Ltd. ... ..	525	0	0	Swire and Sons, Ltd., John ... ..	50	0	0
Robertson, William... ..	20	0	0	Tatem, Ltd., W. J. ... ..	52	10	0
Robinson and Sons, J. ... ..	20	0	0	Taylor and Hubberd, Ltd.... ..	2	2	0
Ropner and Co., Ltd., Sir R. ... ..	10	0	0	Taylor and Sons (1937), Ltd., S. T. ... ..	10	10	0
Rotterdam Dry Dock Co., Ltd. ... ..	552	10	0	Texas Oil Co., Ltd.... ..	10	10	0
Rowhedge Ironworks Co., Ltd. ... ..	5	5	0	Thames Welding Co., Ltd.... ..	15	15	0
Royal Mail Lines, Limited ... ..	500	0	0	Thermotank, Ltd. ... ..	252	10	0
Runciman and Co., Ltd., Walter ... ..	52	10	0	Thompson (Wolverhampton), Ltd., John ... ..	105	0	0
Russell and Co., J. ... ..	10	10	0	Thompson and Sons, Ltd., Joseph L. ... ..	105	0	0
Ruston and Hornsby, Ltd.... ..	75	0	0	Thornycroft and Co., Ltd., John I. ... ..	100	0	0
Rylands Bros., Ltd. ... ..	10	0	0	Tilbury Contracting and Dredging Co., Ltd. ... ..	10	10	0
Salvesen and Co., Chr. ... ..	21	0	0	Todd Oil Burners, Ltd. ... ..	255	5	0
Salvesen and Co., J. T. ... ..	21	0	0	Todd Shipyards Corporation ... ..	100	0	0
Saunders Valve Co., Ltd. ... ..	5	5	0	Trent Maritime Company... ..	10	10	0
Scindia Steamships (London), Ltd. ... ..	10	0	0	Trewent and Procter, Ltd., F. J. ... ..	7	7	0
Scottish Co-operative Wholesale Society ... ..	2	2	0	Trinidad Leaseholds, Ltd.... ..	10	10	0
Scott's Shipbuilding and Engineering Co., Ltd....	250	0	0	Turnbull Scott Shipping Co., Ltd. ... ..	5	5	0
Semtex, Ltd. ... ..	50	0	0	Tyne Dock Engineering Co., Ltd. ... ..	25	0	0
Senova Transport Co., Ltd. ... ..	5	5	0	Ulster Steamship Co., Ltd. ... ..	25	0	0
Shanks and Son, Ltd., Alexander... ..	10	10	0	Union Castle Mail Steam Ship Co., Ltd. ... ..	262	10	0
Sharp and Company ... ..	20	0	0	Union Steam Ship Co., of New Zealand, Ltd....	210	0	0
Sharples Centrifuges, Ltd.... ..	50	0	0	United Africa Co., Ltd. ... ..	250	0	0
Shaw, Savill and Albion Co., Ltd. ... ..	100	0	0	United Baltic Corporation, Ltd. ... ..	250	0	0
Sheaf Steam Shipping Co., Ltd. ... ..	100	0	0	United States Metallic Packing Co., Ltd. ... ..	50	0	0
Shell Tankers, Ltd.... ..	45	14	6	Universal Welding and Construction Company... ..	10	10	0
Ships Finance and Management Co., Ltd. ... ..	100	0	0	Vacuum Oil Co., Ltd. ... ..	50	0	0
Silley, Cox and Co., Ltd. ... ..	250	0	0	Veritys, Ltd. ... ..	25	0	0
Silvertown Lubricants, Ltd. ... ..	52	10	0	Vickers and Sons, Ltd., B. R. ... ..	5	5	0
Singapore Straits Steam Ship Co., Ltd. ... ..	250	0	0	Vickers-Armstrongs, Ltd. ... ..	1,000	0	0
Smith (Keighley), Ltd., J. ... ..	25	0	0	Wailles Dove Bitumastic, Ltd. ... ..	105	0	0
Smith and McLean, Ltd. ... ..	10	0	0	Wakefield and Co., Ltd., C. C. ... ..	52	10	0
Smith and Sons, Ltd., Sir William Reardon ... ..	500	0	0	Walker and Co., Ltd., James ... ..	5	5	0
Smith's Dock Co., Ltd. ... ..	500	0	0	Wallsend Slipway and Engineering Co., Ltd. ... ..	500	0	0
Solvolene Lubricants, Ltd.... ..	10	10	0	Watergate Steam Shipping Co., Ltd. ... ..	10	10	0
South American Saint Line, Ltd.... ..	250	0	0	Watford Electric and Manufacturing Co., Ltd. ... ..	1	1	0
South East London Technical College. First and Second Year Marine Engineering Apprentices ... ..	3	0	0	Weir, Ltd., G. and J. ... ..	1,500	0	0
South Wales Section ... ..	25	0	0	Weir Shipping and Trading Co., Ltd., Andrew ... ..	1,000	0	0
Southend Engineering Company ... ..	1	1	0	Wexford Steamships Co., Ltd. ... ..	2	2	0
Springwell Shipping Co., Ltd. ... ..	21	0	0	Wharton (Shipping), Ltd., J. ... ..	5	0	0
Spurrier, Glazebrook and Co., Ltd. ... ..	10	10	0	White and Co., Ltd., J. Samuel ... ..	210	0	0
Standard Piston Ring and Engineering Co., Ltd. ... ..	5	0	0	Wilson and Kyle, Ltd. ... ..	50	0	0
Steam Coasters, Ltd. ... ..	5	5	0	Wilson Bros. (Pipe Fittings), Ltd. ... ..	3	0	0
Stephen and Sons, Ltd., Alexander ... ..	350	0	0	Wilton's Engineering and Slipway Company ... ..	52	10	0
Stephenson Clarke, Ltd. ... ..	105	0	0	Winsor Engineering Co., Ltd. ... ..	5	5	0
Stephens, Sutton, Ltd. ... ..	3	3	0	Wiseman and Co., Ltd., Alfred ... ..	5	5	0
Sternol, Ltd. ... ..	10	10	0	Wood and Clark, Ltd. ... ..	1	1	0
Sterne and Co., Ltd., L. ... ..	100	0	0	Worthington-Simpson, Ltd. ... ..	100	0	0
Steven and Struther, Ltd. ... ..	5	5	0	Yarrow and Co., Ltd. ... ..	105	0	0
Stewart and Craig, Ltd. ... ..	10	10	0	Yarrows, Ltd. ... ..	5	0	0
Stone and Co., Ltd., J. ... ..	100	0	0	Yorkshire Copper Works, Ltd. ... ..	100	0	0
Stothert and Pitt, Ltd. ... ..	10	10	0				

### DONATIONS FROM INDIVIDUALS

Name	£	s.	d.	Name	£	s.	d.
Abraham, A. H. ... ..	1	1	0	Adams, P. ... ..	2	2	0
Acors, J. C. ... ..	10	6	0	Adamson, W. W. ... ..	1	1	0
Adams, C. W. ... ..	5	5	0	Addison, K. C. ... ..	2	2	6

The Marine Engineers' National War Memorial Building Fund

Name	£	s.	d.	Name	£	s.	d.
Ahmad, J., Lieut.(E), R.P.N.	1	0	0	Bates, F. A.	2	2	0
Aitchison, T. E.	1	0	0	Baxter, R. A.	3	0	0
Aitken, A.	7	7	0	Baxter, R. J., Lieut.-Cdr.(E), M.B.E., R.N.(ret.)	1	0	0
Aitken, M. B.	4	12	0	Beadle, J.	10	0	0
Akman, O. M.	1	0	0	Bean, A. D.	2	2	0
Al Arabi, M. A. I.	10	0	0	Beavin, E. A.	10	6	0
Alexander, H. J.	5	0	0	Beavis, R. C.	3	3	0
Allan, J. S.	5	0	0	Beck, H.	2	2	0
Allen, G. H.	14	5	0	Beck, J.	1	0	0
Allen, R. B.	3	3	0	Beck, R.	2	2	0
Allen, W. F.	2	0	0	Becken, D. W.	1	0	0
Altham, G. H. T.	10	0	0	Beckett, F. O.	2	0	0
Alton, W. A.	5	5	0	Bedward, K.	1	0	0
Ambrose, R. H. W.	1	0	0	Beeken, D. W.	1	0	0
Anderson, S. A.	5	0	0	Bell, F. P.	5	5	0
Anderson, S. D.	1	1	0	Bell, J. S.	3	3	0
Anderson, T. R. L.	2	2	0	Bennett, A. J. S., Lieut., M.B.E., R.N.	5	5	0
Andreadakis, K.	3	0	0	Bennett, A. M.	7	2	0
Andrew, D. H.	2	0	0	Bennett, C. H.	5	0	0
Andrew, J. W.	5	5	0	Bennett, J. C.	1	11	0
Andrews, H. A., E.R.A., R.N.	1	1	0	Bennett, T. A., B.Sc.	4	0	0
Angel, W. B. S.	1	1	0	Benson, T. W.	5	5	0
Annand, G.	1	0	0	Bergner, A. E.	12	0	0
Anning, W. B.	2	2	0	Berlie, R. S. C.	1	10	6
Anonymous	94	0	6	Berry, R. B., Lieut., R.N.	2	12	0
Archer, S., M.Sc.	5	0	0	Best, L. C.	10	0	0
Argyros, A. E.	2	2	0	Beveridge, J. R., B.Sc.	3	3	0
Armer, A.	1	0	0	Bews, W.	2	0	0
Armstrong, E. J.	3	3	0	Biles, E. J.	10	0	0
Armstrong, H.	2	2	0	Binmore, J. M., O.B.E.	2	2	0
Arnold, H.	1	1	0	Bird, A.	10	6	0
Arratoon, M. S.	2	0	11	Birdwood, C. T.	1	1	0
Arrowsmith, B. P., O.B.E.	10	10	0	Birnie, O. H. L.	4	0	0
Arthur, T. L.	2	0	0	Bish, J. E.	5	5	0
Aru, A.	3	13	9	Bisset, J. A. C., Lieut., R.N.R.	1	0	0
Ashby, F. C.	1	1	0	Bjorck, C. E.	10	6	0
Ashley, W. C. C.	5	0	0	Black, A. W.	4	0	0
Atkinson, H.	5	0	0	Black, H.	2	2	0
Atkinson, G. M.	2	2	0	Blackburn, N. P.	2	2	0
Atkinson, S.	1	1	0	Blackburn, R.	1	1	0
Atkinson, T.	2	0	0	Blackman, B. N.	10	0	0
Atkinson, W. A. R.	1	1	0	Blackwood, D. M.	5	0	0
Austin, J.	10	10	0	Blakely, G.	7	2	6
Aziz, G. F., B.Sc.	1	0	0	Blight, A. J. C.	10	0	0
				Blood, T. H.	1	10	0
Back, V. W., J.P.	10	0	0	Bloomfield, J. S. C.	10	0	0
Bailes, J. R.	2	17	0	Blower, E. R.	1	0	0
Bailey, C. H., Lieut.-Cdr.(E), R.N.R.(ret.)	5	0	0	Blowers, W.	1	0	0
Bailey, W. H.	1	0	0	Blue, W. B. T.	10	10	0
Bain, J. M.	1	0	0	Bogle, G. E. D.	2	0	0
Bainbridge, R. G.	1	0	0	Bone, A. C.	1	0	0
Baird, W. G., B.Sc.	1	0	0	Booth, Sir Paul	2	2	0
Baker, R. C.	7	6	0	Boothroyde, F.	3	13	6
Balfour, P. F.	1	1	0	Booty, Mr. and Mrs. E. J.	2	2	0
Banerjee, S. K.	5	0	0	Bourne, F.	5	0	0
Barclay, T. H.	3	19	0	Bott, H., Cdr., R.N.	2	2	0
Barker, L. P., D.S.C.	1	1	0	Bowden, S. H.	5	0	0
Barlow, R. C.	10	0	0	Bowen-Evans, H. P., Lieut.-Cdr., R.N.	2	2	0
Barnes, G. W., Cdr.(E), R.D., R.N.R.(ret.)	1	1	0	Bowie, S., B.Sc.	2	2	0
Barnett, H., Cdr., R.N.Z.N.	2	12	6	Bowman, J., Lieut.-Cdr., D.S.C., R.D., R.N.R.	1	1	0
Barr, H. C.	5	0	0	Bowtell, A. E.	1	0	0
Barr, J. L.	1	0	0	Boyce, H. M.	10	6	0
Barr, W. H.	3	3	0	Boyle, A. H., D.S.C.	5	5	0
Barraclough, J. R.	2	10	0	Brace, J. A.	10	0	0
Barrett, J. E.	1	0	0	Bradley, W., M.B.E.	1	1	0
Barrie, P.	1	0	0	Brand, J. W., Lieut.-Cdr.(E), D.S.C., R.N.(ret.)	5	0	0
Barrow, W. D.	10	0	0	Bremner, H. W.	1	1	0
Bartley, J.	2	2	0	Brettell, W. G.	6	6	0
Barton, J. A.	2	0	0	Broadbent, G.	3	10	0
Bass, C. W. F., D.S.C.	1	0	0	Brooks, E. H.	8	8	0
Bateman, B., M.B.E.	2	2	0	Brown, A. B.	2	0	0

The Marine Engineers' National War Memorial Building Fund

Name	£	s.	d.	Name	£	s.	d.
Brown, C. H. W. ... ..	10	10	0	Chenery, F. J. ... ..	2	2	0
Brown, F. T. ... ..	18	0	0	Chipchase, R. S., Cdr., C.B.E. ... ..	10	10	0
Brown, J. A. ... ..	1	1	0	Chisholm, N. D. ... ..	5	5	0
Brown, G. H. H., Rear-Admiral, C.B.E., and Brown, J. P. H., Lieut., R.N. ... ..	5	0	0	Chiverton, A. H. V., M.B.E. ... ..	1	0	0
Brown, Sir Harold A., Eng. Vice-Admiral, G.B.E., K.C.B. ... ..	5	0	0	Christensen, S. G. ... ..	1	1	0
Brown, N. M. ... ..	5	5	0	Christianson, W. A. ... ..	10	10	0
Brown, W. V. ... ..	1	1	0	Christie, J. G. ... ..	5	0	0
Browne, E. ... ..	10	0	0	Christie, K. ... ..	2	2	0
Bruce, A. D. ... ..	5	0	0	Christie, W. G. ... ..	5	0	0
Bruce, D. ... ..	10	6		Church, J. E. ... ..	5	5	0
Bruty, W. G., Lieut.(E), M.B.E., R.N.(ret.) ... ..	1	1	0	Clare, G. ... ..	10	6	
Brydon, J. ... ..	10	0	0	Clark, A. W. ... ..	1	1	0
Buchanan, J. C. ... ..	1	1	0	Clark, J. ... ..	7	1	0
Buck, A. E., Lieut.-Cdr.(E), R.N.(ret.) ... ..	5	0	0	Clark, J. E. ... ..	2	2	0
Buckley, J. ... ..	1	0	0	Clark, R. H. ... ..	5	0	0
Buddle, J. J. ... ..	2	0	0	Clarke, J. D., Lieut.-Cdr.(E), R.C.N.R. ... ..	2	0	0
Bukwith, A. ... ..	5	0	0	Clarke, R., O.B.E. ... ..	5	0	0
Bull, F. G. ... ..	2	2	0	Clarke, R. T. ... ..	10	10	0
Bull, O. ... ..	5	0	0	Clayton, H. R. ... ..	2	2	0
Bullen, T. H. ... ..	5	5	0	Cleworth, H. B. ... ..	1	0	0
Bunn, J. C. ... ..	1	1	0	Clifton, R. H. ... ..	1	1	0
Burgess, A. D. ... ..	1	1	0	Clough, E. ... ..	5	0	0
Burgis, F. M. ... ..	5	5	0	Coates, J. L., O.B.E. ... ..	2	12	0
Burke, C. E. ... ..	2	2	0	Cobb, W. S. ... ..	1	1	0
Burnham, G. ... ..	2	2	0	Cockburn, T. ... ..	2	10	0
Burrage, E. E. ... ..	5	0	0	Cochrane, D. ... ..	1	8	0
Burring, F. C. G., Lieut.(E), R.N. ... ..	5	5	0	Coia, G. J. ... ..	3	0	0
Burns, S. C. ... ..	10	0		Cole, T. E. ... ..	18	0	
Busby, L. H. ... ..	5	0	0	Collett, W. H. ... ..	5	0	0
Butcher, R. J. ... ..	7	7	6	Colley, J. ... ..	5	5	0
Butler, R. B. ... ..	2	5	0	Collin, R. B. ... ..	1	1	0
Buttery, W. K. ... ..	2	2	0	Colling, W. ... ..	1	1	0
Buttigieg, F. ... ..	12	3		Colvill, F. J., C.B.E. ... ..	8	8	0
Buultjens, G. M. ... ..	10	6		Combellack, E. P. ... ..	1	1	0
Cady, E. N. ... ..	1	0	0	Connell, D. M., Lieut.-Cdr., R.N. ... ..	2	2	0
Cain, T. R. ... ..	2	18	2	Cook, J. ... ..	1	1	0
Calver, A. E. ... ..	5	0	0	Cook, J. F. ... ..	1	1	0
Cameron, J. D. ... ..	5	0	0	Cook, R., M.Sc. ... ..	1	1	0
Cameron, J. H. ... ..	5	0	0	Cookson, F. R. C. ... ..	2	2	0
Cameron, J. W. ... ..	3	3	0	Cooper, A. T., Lieut.-Cdr.(E) (SB), R.C.N.R. ... ..	1	1	0
Campbell, A., B.Sc. ... ..	1	1	0	Cooper, J., Lieut., R.N. ... ..	1	1	0
Campbell, Mrs. F. A. ... ..	100	0	0	Cordingley, J., Eng. Lieut., R.N.(ret.) ... ..	3	3	0
Campbell, J. P. ... ..	10	10	0	Corner, W. R., Lieut.(E), M.B.E., R.N.(ret.) ... ..	2	0	0
Cant, A. J. ... ..	1	1	0	Corsie, W. ... ..	2	2	0
Carabine, A. M. ... ..	1	0	0	Costigan, R., O.B.E. ... ..	10	10	6
Card, N. H., Lieut., R.N. ... ..	2	2	0	Coulthard, H. ... ..	2	2	0
Carmichael, D. O. ... ..	1	1	0	Coulthard, J. W., D.S.C. ... ..	10	10	0
Carnie, J. ... ..	1	1	0	Cowan, G. ... ..	1	1	0
Carrick, P. ... ..	10	0	0	Cowan, R. S. ... ..	10	0	0
Carslaw, C. H. ... ..	5	0	0	Cowe, H. A. ... ..	1	1	0
Carson, W. D. ... ..	3	3	0	Cowley, J. ... ..	1	0	0
Carson, W. S. ... ..	2	2	0	Cowling, A. V. ... ..	5	0	0
Carswell, D. B., O.B.E. ... ..	25	0	0	Cowper, J. ... ..	2	2	0
Carter, A. ... ..	8	3	0	Craggs, G. F. ... ..	1	11	
Carter, H. D. ... ..	3	0	0	Craggs, T. S. ... ..	1	1	0
Carter, J. R. ... ..	1	0	0	Craig, J. ... ..	5	5	0
Cassels, G. C. ... ..	2	0	0	Crandell, T. C. ... ..	5	5	0
Cavan, G. ... ..	1	1	0	Crane, C. ... ..	1	1	0
Chadwick, S. S. ... ..	1	1	0	Crew, F. J. ... ..	2	2	0
Challinor, D. W. ... ..	2	2	0	Crighton, A. E. ... ..	5	5	0
Chalmers, D. W. ... ..	2	2	0	Crighton, J. ... ..	3	3	0
Chaloner, J. L. ... ..	10	10	0	Crighton, J. ... ..	15	15	0
Chamberlain, E. R. ... ..	3	3	0	Crighton, J., Jr. ... ..	10	10	0
Chamberlain, J. H., Lieut.(E), D.S.C., D.S.M., R.N.(ret.) ... ..	2	0	0	Cromey, W. R. ... ..	1	1	0
Chandler, W. J. ... ..	5	0	0	Crompton, T. A. ... ..	105	0	0
Chapman, C. ... ..	1	0	0	Crompton, T. M. ... ..	2	2	0
Chapman, H., M.B.E. ... ..	2	2	0	Cromwell, S. ... ..	2	0	0
				Crosbie, W. L. ... ..	1	1	0
				Crosbie, W. L. ... ..	1	0	0
				Cross, F. ... ..	2	7	6
				Cross-Rudkin, F. W. ... ..	10	0	0

The Marine Engineers' National War Memorial Building Fund

Name	£	s.	d.	Name	£	s.	d.
Crossley, D. P. ... ..	10	9		East, A. S. ... ..	2	0	0
Cubitt, J. C. ... ..	3	2	0	Ebeling, J. D. W. ... ..	5	0	0
Curphey, G. ... ..	14	5		Eddy, A. H. ... ..	2	6	9
Curling, B. C., O.B.E. ... ..	5	5	0	Edgar, R. ... ..	2	0	0
Cuthbert, J. R. ... ..	2	0	0	Edmiston, A. R. ... ..	1	1	0
Cuttle, H. H. ... ..	1	0	0	Edmiston, J. G. ... ..	5	5	0
Daintith, H. ... ..	1	1	0	Edmiston, J. H. F. ... ..	21	0	0
Dalgarno, C. M. ... ..	6	6	0	Edwards, H. S. ... ..	5	0	0
Dalrymple, W. ... ..	1	1	0	Edwards, S. W. ... ..	1	0	0
Daniel, J. C. ... ..	5	0	0	Eighteen, H. J. ... ..		11	0
Daniels, C. E., O.B.E. ... ..	1	1	0	Elderton, A. J., Eng. Lieut.-Cdr., S.R., R.N.(ret.)	5	0	0
D'Arcy, N. J. H., Capt.(E), R.N.(ret.)	2	2	0	Elgood, Miss J. O. S. ... ..	2	0	0
Dauphin, L. G. ... ..	3	0	0	Ellerington, A. L. ... ..	2	0	0
Davidson, A. ... ..	10	0	0	Ellis, E. ... ..	1	1	0
Davidson, A. E., Major General, C.B., D.S.O.	11	1	0	Ellison, A., Lieut.-Cdr.(E), R.N.R.(ret.)	2	2	0
Davison, B. H. ... ..	10	0	0	Ellison, J. F. R. ... ..	1	1	0
Davidson, J. H., O.B.E. ... ..	6	1	0	Elordieta, V. ... ..		10	6
Davidson, L. T. ... ..	3	0	0	Emery, A. A. ... ..	1	19	5
Davies, A. J. A. ... ..	10	0	0	English, T. C. ... ..	2	2	0
Davies, D. A. ... ..	2	2	0	Esdon, D. S. ... ..	2	2	0
Davies, F. S. ... ..	2	0	0	Espin, W. L. ... ..	1	0	0
Davies, W. G. ... ..	5	0	0	Evans, I. W. Jones ... ..	5	5	0
Davis, G. ... ..	2	2	0	Evans, W. J. ... ..	1	0	0
Davis, J. R., Eng. Cdr., O.B.E., R.N.(ret.)	2	2	0	Evans, W. R. ... ..	3	3	0
Davis, L. C. ... ..	2	2	0	Everett, P. J. ... ..	1	0	0
Davis, R. E. ... ..	5	0	0	Ewart, W. F. J. D. ... ..	4	16	0
Dawson, P. H. T. ... ..	1	0	0	Fairlem, G. H., O.B.E. ... ..	10	10	0
Deacon, H. O. ... ..	3	3	0	Fairley, F. F. ... ..	1	1	0
de la Harpe, M. N. ... ..	1	0	0	Fairweather, R. ... ..	1	0	0
Dean, N. ... ..	1	1	0	Farmer, J. D., O.B.E. ... ..	10	0	0
Deans, R. ... ..	2	0	0	Farrell, W., Cdr., M.B.E., R.N. ... ..	1	0	0
Delo, W. E. W. ... ..	1	0	0	Fasken, W. S. ... ..	10	0	0
Dempster, G. ... ..	1	0	0	Fawcett, F. A., B.Eng. ... ..	1	1	0
Denny, J. ... ..	2	2	0	Ferguson, G., Lieut.-Cdr., R.N.R. ... ..	1	1	0
Denny, W. ... ..	60	0	0	Ferguson, J. A. ... ..	2	10	0
Derbyshire, C. J. C., Lieut.(E), M.B.E., R.N.(ret.)	3	0	0	Ferguson, L. J. ... ..	5	5	0
Dick, R. A., B.Sc. ... ..	3	3	0	Ferrier, H. G. ... ..	10	5	0
Dick, W. ... ..	2	2	0	Fielden, B. P. ... ..	11	10	0
Dicker, E. ... ..	2	2	0	Filshie, G., O.B.E. ... ..	5	0	0
Dickerson, T. ... ..	2	0	0	Findlay, D. N. ... ..	4	0	0
Dickson, A. A. S., B.Sc. ... ..	5	0	0	Findlay, J. T. ... ..	5	0	0
Dienes, N. ... ..	2	10	0	Finlay, L. ... ..	2	1	0
Dight, S. R., Eng. Rear-Admiral, C.B.E. ... ..	20	0	0	Finnis, R. B. ... ..	5	5	0
Dingle, R. W. ... ..	5	5	0	Firth, G. T., Capt., M.B.E. ... ..	1	0	0
Dixon, J. ... ..	4	0	0	Fisher, G. F. ... ..	1	0	0
Dobbs, A. G. ... ..	3	3	0	Fishwick, J. T. ... ..	2	0	0
Dodd, C. H. ... ..	2	2	0	Fitton, A. E. ... ..	1	1	0
Dodd, E. B. ... ..	2	2	0	Flamank, D. C. ... ..		10	6
Doig, M., M.B.E. ... ..	5	0	0	Fleming, J., Lieut.-Cdr.(E), R.N.(ret.)	1	1	0
Doling, R. ... ..	1	0	0	Fleming, S. W. C. ... ..	1	0	0
Donaldson, W. ... ..	2	2	0	Flenk, H. A. ... ..	1	7	6
Doonan, F. ... ..	1	0	0	Fletcher, A. ... ..	5	5	0
Dorey, S. F., C.B.E., D.Sc., Wh.Ex., F.R.S.	25	0	0	Fletcher, H. E. ... ..	5	5	0
Dornan, W. ... ..	1	0	0	Flood, C. J. M., B.Sc., Wh.Ex. ... ..	5	5	0
Dowle, E. H. ... ..	1	0	0	Flood, E. C. ... ..	1	1	0
Downie, F., Major, C.B.E. ... ..	1	1	0	Floode, R. L. ... ..	1	0	0
Drake, D. C. ... ..	10	0	0	Fogg, R. C. ... ..	1	1	0
Duncan, J. ... ..	6	5	0	Foggin, G. ... ..	1	0	0
Duncan, S. G. ... ..	5	0	0	Foley, Sir E. Julian, C.B. ... ..	52	10	0
Dunk, G. E. ... ..	2	2	0	Ford, E. D., Cdr.(E), R.N.(ret.)	2	2	0
Dunlop, S. H. ... ..	7	0	0	Foreman, W. J. L. ... ..	1	1	0
Dunn, J. L., Cdr.(E), M.B.E., R.C.N.R. ... ..	5	0	0	Forret, A. ... ..	1	17	0
Dunn, W. ... ..	4	4	0	Forsyth, G. H., M.B.E., D.Sc. ... ..	5	0	0
Dunne, J. R. ... ..	2	0	0	Forsyth, R. G., Eng. Capt., O.B.E., R.N.(ret.)	3	0	0
Dunshea, R. M. ... ..	1	0	0	Foster, E. C. ... ..	1	0	0
Duval, F. C. ... ..	1	10	0	Foulkes, J. ... ..	2	0	0
Eades, W. ... ..	2	0	0	Fowler, J. ... ..	1	1	0
Eamey, R. W., Lieut.(E), M.B.E., D.S.C., R.N. (ret.) ... ..	7	12	6	Fowler, W. E. B. ... ..	1	1	0
				Fox, W. J. ... ..	1	1	0
				Fraser, I. A. ... ..	1	0	0

The Marine Engineers' National War Memorial Building Fund

Name	£	s.	d.	Name	£	s.	d.
Fraser, I. M.	2	0	6	Greenwood, J.	10	0	0
Freeman, S. B., C.B.E., M.Eng.	5	5	0	Gregory, W. H., D.S.C., M.A.	2	2	0
French, R. D., Lieut.-Cdr.(E), R.N.(ret.)	1	1	0	Gregson, W., M.Sc., Hon. Capt., R.N.R.	10	10	0
Friend, C. N.	2	2	0	Grieve, J. H.	2	2	0
Frost, J.	2	2	0	Grieve, W.	12	2	0
Fulford, L. J.	2	2	0	Grieves, N. A.	1	0	0
Gair, A. R.	5	5	0	Grey, R. B.	5	5	0
Gale, A. E.	1	0	0	Griffin, S. St. J. G.	2	2	0
Galley, J. N.	1	8	6	Groom, R. W.	10	10	0
Gambles, C. C.	2	2	0	Groundwater, J. R.	2	7	2
Gander, F. S., B.Sc.	1	1	0	Groves, A. N., Lieut.-Cdr.(E), R.N.R.(ret.)	2	2	0
Gandy, F. B.	20	0	0	Gumbrell, C. J.	2	0	0
Gardner, H. A.	2	2	0	Guerin, W. R.	10	0	0
Gardner, R.	5	5	0	Gummer, R. H.	10	10	0
Garratt, E. C.	5	0	0	Gunn, J. G., B.Sc.	10	0	0
Garrett, J. D.	1	0	0	Guthrie, A. S.	1	0	0
Gaskin, G. H.	6	3	6	Hackston, G.	1	1	0
Gatward, G. F.	3	0	0	Haddy, F. G., Eng. Rear-Admiral (ret.)	1	1	0
Geddes, A. S.	1	7	6	Hadlow, C. N.	1	1	0
Gemmell, J.	1	1	0	Hagan, A. N.	2	12	6
George, W. R.	1	1	0	Hair, D., M.B.E.	4	2	0
Gerard, A. J.	4	4	0	Hair, E. H., O.B.E.	5	0	0
Gerrard, H.	2	1	0	Haldane, I.	1	1	0
Gibbon, C. E.	2	2	0	Hall, F. C.	10	0	0
Gibson, A. C., B.A.	2	0	0	Hall, H. G.	2	2	0
Gibson, H. C.	2	2	0	Hall, H. J.	1	1	0
Gilbert, J. H., M.V.O.	2	2	0	Hall, J. D.	1	1	0
Giles, H. J. G.	15	0	0	Hall, L.	5	0	0
Gill, F. B.	1	15	0	Hall, R. D.	2	0	0
Gillam, A. D.	10	0	0	Hallett, G. N.	1	0	0
Gillies, D. M.	5	5	0	Halliday, J. F.	1	1	0
Gillies, W.	8	9	0	Halls, G.	1	1	0
Gillies, W. D. W.	1	1	0	Hamilton, J. P.	2	2	0
Giordan, A. L., Lieut.(E), M.B.E., D.S.C., R.N. (ret.)	2	17	9	Hamilton, R. W.	1	0	0
Giorgio, J.	1	0	0	Hamilton, W. O.	5	0	0
Girdler, A. C.	1	1	0	Hamilton-Smith, P. A.	10	0	0
Girdwood, J. F.	10	0	0	Hamley, F. J.	5	5	0
Given, J. G. C., Rear-Admiral, C.B.E., C.B.	2	2	0	Hammond, C. H.	2	2	0
Glass, W. J. S.	4	0	0	Hammond, S. W.	1	1	0
Glavina, S.	10	0	0	Handley, C. E.	9	6	6
Golightly, G. T.	1	1	0	Hanna, A.	1	0	0
Gooder, A. C.	1	1	0	Hardacre, F. S.	10	6	0
Goodyear, L. A.	10	0	0	Harding, A. J., O.B.E.	3	3	0
Gordon, E. W.	1	1	0	Harding, R. W., Eng. Lieut.-Cdr., R.N.R.(ret.)	2	2	0
Gordon, F.	2	7	2	Hardstone, W. F.	1	8	6
Gordon, I. E. S.	5	6	3	Hardy, A. C., B.Sc.	10	10	0
Gordon-Luhrs, H., Lieut. Col., C.M.G.	2	2	0	Hardy, J., O.B.E.	1	1	0
Gow, D. F.	2	2	0	Hardy, P.	5	0	0
Graham, A. A.	10	6	0	Harnley, J.	18	0	0
Gowling, A. F.	10	6	0	Harold, H. F., Eng. Cdr., R.N.(ret.)	5	0	0
Graham, J. R.	2	2	0	Harris, C. G.	2	2	0
Graham, W.	1	8	0	Harris, D. J.	2	2	0
Graham, W. A., Eng. Capt., O.B.E., R.N.R.	10	0	0	Harris, J. E. F.	2	0	0
Grange, G. R., Lieut.-Col., D.S.O., M.C., B.Sc.	25	0	0	Harris, W. E., D.S.C.	1	0	0
Grant, A.	20	0	0	Harrison, D. M.	1	0	0
Grant, W. C.	5	5	0	Harrison, R.	2	0	0
Grant, W. E., Lieut.-Cdr.(E), R.N.(ret.)	1	1	0	Harrison, S. B.	2	1	0
Graves, J. H.	5	0	0	Harrison, S. J.	2	2	0
Gray, A. T.	10	6	0	Harrold, A. F., B.Sc.	2	0	0
Gray, F.	1	0	0	Harrower, E.	5	0	0
Gray, G. T.	2	2	0	Harvey, A., M.B.E.	2	2	0
Gray, T.	1	0	0	Harvey, G. C.	1	1	0
Gray, W. J.	10	0	0	Harvey, Mrs. J. A.	2	2	0
Greaves, R. G.	5	0	0	Harvey, J. B.	5	5	0
Green, E. L.	2	0	0	Harvey, K. S.	1	1	0
Green, G. R.	5	0	0	Harwood, W.	3	3	0
Green, J.	10	0	0	Hawke, H. J.	1	0	0
Green, J. E.	5	0	0	Hawkins, R. F.	1	1	0
Green, W. H.	3	3	0	Hay, C.	1	1	0
Greenacre, L.	5	0	0	Hay, J.	5	0	0

The Marine Engineers' National War Memorial Building Fund

Name	£	s.	d.	Name	£	s.	d.
Hayward, S. G., Lieut.-Cdr.(E), R.N.R.(ret.)	10	10	0	Hutchinson, G. R....	2	10	0
Head, E. R., Lieut., R.N.	3	3	0				
Healy, E. J.	1	1	0	Imray, W. N.	2	7	6
Hearnden, H. E.	2	2	0	Inches, R. M., Lieut.-Cdr., R.N.	2	2	0
Heaton, J. A.	5	0	0	Inglis, H. J.	1	1	0
Heatly, T. S.	1	2	0	Inglis, J. D.	25	0	0
Heck, W. D.	5	5	0	Ingram, L. F., Capt., R.N.	1	1	0
Hedworth, W. A.	1	1	0	Inman, F. E.	5	0	0
Helyer, R. L., Lieut.-Cdr.(E), D.S.C., R.N.R.(ret.)	2	2	0	Innes, A.	5	0	0
Henderson, J. M.	3	2	0	Innes, W. G. S.	1	1	0
Henriques, W. Q., O.B.E.	10	10	0	Ireland, W. G.	1	0	0
Heppell, J. D.	1	1	0	Irvin, N.	1	0	0
Hepton, M. F., Cdr.(E), R.N.R.(ret.)	1	1	0	Irvine, J. S.	1	0	0
Herbert, C. W.	10	6		Irving, E. T., Lieut.-Cdr.(E), R.N.R.(ret.)	2	2	0
Heron, W. M.	2	9	0	Irwin, D. W., Lieut.-Cdr.(E), R.N.R.(ret.)	1	0	0
Heron, W. M. E.	2	0	0	Isdale, J., Capt., D.S.C.	8	3	0
Herriot, J. C.	5	5	0	Ismay, T.	10	0	
Herriotts, J.	2	0	0				
Hetherington, W.	10	0		Jack, J. W. A.	5	0	0
Heys, E., Lieut. Col., T.D.	10	6		Jackson, C.	2	2	0
Hibble, W. G., Lieut.-Cdr, R.N.V.R.	10	6		Jackson, Mrs. E.	31	10	0
Hicks, W. F.	1	1	0	Jackson, R.	2	2	0
Hill, J. A. M.	1	0	0	Jackson, R. N., Lieut.-Cdr., R.N.	1	1	0
Hillier, H., O.B.E.	5	5	0	Jackson, W. G.	1	0	0
Hinchcliffe, C. I., Capt.(E), O.B.E., R.D., R.C.N.	10	0	0	Jackson, W. H.	8	8	0
Hindmarch, T.	15	5	0	Jacobs, W.	2	0	0
Hoare, A., O.B.E.	3	3	0	Jacobs, W. F.	3	0	0
Hoare, J. H.	5	0	0	Jamieson, J.	10	0	0
Hobden, A. L., Lieut.-Cdr.(E), R.N.(ret.)	1	1	10	Jaques, C. L.	1	1	0
Hodge, G. R.	5	0	0	Javat, P. B.	4	0	0
Hodgins, D.	1	0	0	Jenkins, D.	5	5	0
Hodgson, F.	2	0	0	Jenkins, H.	10	10	0
Hodgson, M. J., Cdr., D.S.C., R.N.	5	0	0	Jennings, F.	1	1	0
Hogan, D. G.	21	7	0	Jennings, W. M.	2	2	0
Hogg, R. S.	3	3	0	Jeremiah, B. C.	2	0	0
Holdforth, A. E.	1	0	0	Jewitt, D. D. E.	3	3	0
Holibar, W. E. G.	2	0	0	Johansen, H. A.	4	0	0
Holker, R. L.	1	8	0	Johnson, J.	10	10	0
Holland, R. L.	10	10	0	Johnson, T. F.	5	14	6
Holm, H. H., O.B.E.	5	0	0	Johnston, R.	2	2	0
Holmes, R.	4	6		Johnston, W., Lt.-Cdr, R.N.R.	3	0	0
Holroyde, J. B.	2	0	0	Johnstone, O., M.B.E.	8	8	0
Holt-Wilson, D. S., Cdr., D.S.O., R.N.	1	13	0	Joiner, A. D.	5	5	0
Hood, D. L. S., D.S.C.	5	0	0	Jolly, J. Stuart	5	5	0
Hook, R. J.	1	1	0	Jones, A. R.	1	1	0
Hopper, R.	4	0	0	Jones, C. F.	2	2	0
Horner, H. T. V.	1	0	0	Jones, C. H.	1	0	0
Horrihan, D.	5	5	0	Jones, D. R.	4	0	0
Horton, J. C. V.	3	3	0	Jones, F. M., B.Sc.	2	2	0
Hosking, H. H.	10	6		Jones, H. S.	2	2	0
Hough, H.	1	0	0	Jones, J. I.	10	0	0
Hounsell, H., Cdr., R.N.	1	2	0	Jordan, H. J.	16	0	
Houston, J.	5	0	0				
Houston, W. C.	5	0	0	Kay, R. C.	7	10	
Howard-Mercer, L. J. F., Cdr.(E), R.N.(ret.)	2	6	3	Keay, J., M.B.E.	3	11	0
Howe, L. H.	1	6	3	Keith, A. M., Lieut.-Cdr.(E), R.N.R.(ret.)	1	0	0
Howell, T. H.	5	0	0	Kelly, D. H. S.	2	2	0
Howey, E.	2	2	0	Kelsey, S.	5	5	0
Hudson, C.	5	5	0	Kemp, A.	1	0	0
Hufton, J. L.	3	0	0	Kendrick, R.	2	2	0
Hughes, D.	1	10	0	Kennedy, A. C., Major, R.E., T.D.	1	1	0
Hughes, G. T.	3	3	0	Kennedy, D. S., Lieut.(E), R.N.R.(ret.)	2	0	0
Hughes, J. B.	1	12	6	Kennedy, P.	2	2	0
Hume, C. W.	100	0	0	Kennedy, R. E.	10	6	
Humphreys, H. S.	5	5	0	Kenward, R. A.	20	0	0
Hunt, C. E.	26	5	0	Keppie, G. B.	1	1	0
Hunter, M. S.	2	2	0	Kerridge, W. W.	13	8	6
Hunter, W. P.	2	2	0	Key, F. F.	1	0	0
Hussey, R. M.	1	1	0	Keymer, A. R.	10	10	0
Hutcheson, G. I. D., B.E., Eng. Capt., R.A.N. (ret.)	10	0	0	Kinder, R. N.	1	1	0
				King, A. S.	2	2	0

The Marine Engineers' National War Memorial Building Fund

Name	£	s.	d.	Name	£	s.	d.
King, F. V., Eng. Rear-Admiral, C.B.E. ...	5	5	0	McColl, K. G., B.Eng. ...	5	0	0
King, K. G....	5	5	0	McConnell, D. ...	10	0	0
King, W. C. ...	1	10	0	McConnell, W. E. ...	5	5	0
Kingcome, Sir J., Eng. Vice-Admiral, K.C.B....	10	10	0	McCormick, A. P. ...	5	5	0
Kirby, W. H. ...	1	5	0	McCowatt, J. W. ...	10	0	0
Kirkwood, R. ...	1	0	0	McCreery, R. W. ...	5	0	0
Kirstein, I. ...	20	0	0	McCutcheon, J. F. ...	3	0	0
Kitching, G. W. ...	10	10	0	MacDermott, M. ...	3	3	0
Knap, H. ...	5	5	0	McDonald, A. F. ...	1	0	0
Knapton, R. ...	10	0	0	McDonald, D., Lieut.(E), M.B.E., D.S.C., R.N. (ret.) ...	1	0	0
Knipe, W. D. ...	1	1	0	MacDonald, J. E. C. ...	5	0	0
Knowles, E. C. ...	2	0	0	McDougall, A. ...	5	0	0
Knowles, T. W. G. ...	10	0	0	MacFarlane, F. A. ...	15	0	0
Kode, J. E. ...	1	1	0	MacFarlane, W. H....	5	0	0
Kverndal, O. G. ...	20	0	0	McGregor, P. ...	1	0	0
Lacey, R. C. ...	10	0	0	McGregor, P. M. ...	2	2	0
Laidlaw, A. H. ...	10	10	0	McGuinness, D. E. ...	5	5	0
Lamb, C. N. ...	5	5	0	McIntyre, G. T. ...	10	0	0
Lamb, D. P., Lieut. Col. ...	4	4	0	MacIver, H. I. ...	5	0	0
Lamb, J., O.B.E. ...	8	3	0	McIver, J. P. ...	10	0	0
Lamb, J. W., Lieut.-Cdr., R.N. ...	2	2	0	McJannet, R. C. ...	2	0	0
Lambert, E. A. ...	3	3	0	McKay, G. R. ...	1	0	0
Lang, W. V. ...	2	2	0	Mackenzie, J., Lieut.-Cdr., R.D., R.N.R. ...	5	0	0
Langham, J. M., B.A. ...	2	2	0	McKenzie, J. A. ...	5	0	0
Larsen, W. L. ...	3	13	6	McKenzie, W. C. ...	10	10	0
Larter, F. A. ...	10	10	0	McKeon, J. J. ...	1	1	0
Lascelles, G. W. ...	2	2	0	McKerracher, W. M., B.A. ...	5	0	0
Lashmar, T. G. ...	1	0	0	MacKinlay, J. H. ...	2	0	0
Laverty, J. ...	2	0	0	Mackinnon-Pearson, I. ...	5	5	0
Lawrence, R. ...	2	8	0	McLachlan, W. O. ...	4	4	0
Lawrie, P., Lieut.-Cdr.(E), R.N.R.(ret.) ...	2	2	0	McLaren, D. N. ...	10	10	0
Lawson, J. W. ...	5	5	0	McLaughlin, B. A. ...	1	0	0
Ledger, A. H. ...	1	1	0	McLaughlin, W. ...	12	0	0
Lees, T. H. ...	1	10	0	McLeod, I. R. ...	1	1	0
LeFevre, K. ...	7	6		MacLeod, J....	2	0	0
Leggat, W. A. ...	5	0		MacLeod, N. A. ...	1	1	0
Legh-Jones, Sir G., M.B.E. ...	5	5	0	MacLeod, R. M. ...	2	2	0
Leigh, L. C....	10	6		MacLeod, V. J. ...	10	0	
Leighton, T. J. ...	2	2	0	McLuckie, R. ...	2	2	0
Leitch, D. ...	2	0	0	McMaster, E. ...	5	0	0
Levington, I. M. ...	10	6		MacMillan, M. A. ...	2	10	0
Levy, N. ...	4	7	3	Macnamara, J. J., Lieut., R.N. ...	5	0	
Lewer, L. J. S. ...	6	0		MacNeill, A. ...	1	0	0
Lewis, C. R. S., B.E.M. ...	1	1	0	McNeil, J. H. ...	1	0	0
Ling, R. J. K. ...	10	6		McNeill, M. W. W. ...	5	0	0
Link, C. Ernest, C.C. ...	5	5	0	MacNiven, H., Major, M.B.E. ...	2	2	0
Liston, A. G., M.B.E. ...	3	3	0	McPhee, A. M. ...	2	5	0
Littlewood, C., Rear-Admiral, O.B.E., R.N. ...	1	0	0	McPherson, R. G. ...	2	2	0
Llewellyn, R. J., M.B.E. ...	10	0	0	Mactavish, J. A. ...	1	0	0
Loader, E. J. ...	5	0	0	Maddocks, K., B.Sc. ...	1	1	0
Lochhead, D. G. ...	5	0	0	Madden, E. B. ...	5	5	0
Logan, R. M. ...	2	4	11	Magill, R., B.Sc. ...	5	0	0
Logie, J. S. ...	3	3	0	Mahoney, J. ...	1	1	0
Lohrmann, H. A. ...	1	1	0	Mahringer, K. ...	1	1	0
Lomas, S. D. ...	1	0	0	Maid, J. M. ...	5	0	0
London, J. T. ...	5	0	0	Makinson, H. D. ...	2	0	0
Lowes, R. H. ...	1	1	0	Manger, E. C. ...	3	3	0
Lowrie, J. C. ...	21	0	0	Mansfield, H. F. ...	2	2	0
Lund, B. W. ...	1	1	0	Markes, J. E. ...	2	2	0
Lund, W. Walton ...	5	0	0	Marriner, G. T. ...	100	0	0
MacAdam, R. ...	5	0	0	Marsh, A. ...	4	0	0
McAlpine, R. ...	1	0	0	Marsh, K. H. ...	5	0	0
McAuslan, D. F. ...	1	0	0	Marsh-Jones, D. S. ...	10	6	
McAuslan, H. B., Lieut. Col. ...	10	0	0	Martin, A. ...	5	0	0
McAuslan, W., I.S.O. ...	5	0	0	Martin, C. E. ...	10	0	0
McCallum, A. ...	10	10	0	Martin, D. S. W. ...	1	10	0
McCallum, J. ...	1	0	0	Mason, W. A., M.Eng. ...	5	0	
McCarthy, R. K. ...	1	0	0	Mather, A. H. ...	10	10	0
McCleave, P. R. ...	5	0		Mather, M. L. ...	5	5	0
MacColl, H. F. ...	2	2	0	Matthews, J. A. ...	10	6	



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Name	£	s.	d.	Name	£	s.	d.
Mattison, S. M. ... ..	3	0	0	Nelson, A. E., O.B.E. ... ..	10	0	0
Mauger, R. L. ... ..	5	0	0	Nelson, W. Lynn, O.B.E. ... ..	50	0	0
Maundrell, H. B. H. ... ..	10	0	0	Neill, F. G. ... ..	2	2	0
Mawditt, J. G. ... ..	2	2	0	Neilson, J. B. ... ..	1	0	0
Meadows, H. T., Cdr., D.S.C., R.D., R.N.R. ... ..	5	0	0	Newill, J. H. ... ..	5	5	0
Mees, E. E. ... ..	75	0	0	Newall, R. ... ..	1	1	0
Mees, J. Mackinnon ... ..	2	0	0	Newell, R. ... ..	5	5	0
Mellor, W. ... ..	15	0	0	Newell, W. S. ... ..	25	0	0
Melrose, J. ... ..	1	0	0	Newman, E. E. R. ... ..	1	0	0
Menzies, W. G. ... ..	2	5	0	Newton, H. ... ..	10	0	0
Merrick, R. H., Eng. Lieut.-Cdr., R.N.(ret.) ... ..	5	5	0	Newton, W. M. ... ..	3	3	0
Michaelis, J. R. ... ..	10	6	0	Nicholas, E. A. L. ... ..	1	1	0
Michell, J. H. ... ..	2	2	0	Nicholson, D. H. ... ..	20	0	0
Middleton, A. J. ... ..	1	1	0	Nicholson, J. S., M.B.E. ... ..	7	2	0
Miles, G. T. ... ..	1	0	0	Nicholson, T. L. ... ..	5	5	0
Millar, P. ... ..	2	2	0	Nickless, H. W. ... ..	25	0	0
Miller, A. G. J. ... ..	2	2	0	Nicol, H. ... ..	4	10	0
Miller, G. W. H. ... ..	2	0	0	Nicol, K. ... ..	1	0	0
Miller, J. C. ... ..	5	0	0	Nicolson, A. ... ..	1	1	0
Miller, L. F. ... ..	2	2	0	Niven, W. J. ... ..	10	10	0
Miller, W. A. ... ..	2	0	0	Noake, L. C. S., Eng. Capt., R.N.(ret.) ... ..	5	0	0
Mirrie, S. ... ..	2	0	0	Noel, T. H. ... ..	5	0	0
Mitchell, J. E., Eng. Lieut.-Cdr., R.N.(ret.) ... ..	6	3	0	Norledge, G. V. ... ..	3	3	0
Mitchell, J. C. ... ..	1	1	0	Norman, H. H. ... ..	2	2	0
Mitchell, J. M., Eng. Lieut.-Cdr., R.N.(ret.) ... ..	5	0	0	North, J. E. ... ..	1	1	6
Mitchell, J. R., E.R.A., R.N. ... ..	3	0	0	Norton, E., B.E.M. ... ..	10	0	0
Mitchell, R. J. C. ... ..	2	0	6				
Moffat, J. ... ..	2	0	0	Oates, A. ... ..	1	0	0
Moffatt, C. ... ..	2	2	0	O'Connor, V. F., B.Sc., Lieut., R.C.N. ... ..	5	0	0
Moloney, J. E., Eng. Capt., C.I.E., R.I.N.(ret.) ... ..	3	3	0	Oddy, F. W. ... ..	10	5	0
Montgomery, H. L. ... ..	1	0	0	O'Dwyer, D. F. ... ..	1	0	0
Moore, A. ... ..	5	0	0	O'Grady, C. M. ... ..	1	0	0
Moore, B., Lieut., R.N.R. ... ..	1	0	0	Olie, A. D. ... ..	1	9	0
Moore, C. K. ... ..	1	0	0	Oliver, J. T. ... ..	2	2	0
Moran, R. B. ... ..	1	1	0	Olsen, L. M. ... ..	2	2	0
More, G. ... ..	2	0	0	O'Neill, G. A., Eng. Lieut.-Cdr., R.N.(ret.) ... ..	3	3	0
Moreton, E. A. R. ... ..	2	10	0	Onyon, W., Eng. Capt., M.V.O., R.N.(ret.) ... ..	8	3	0
Morgan, B. C. ... ..	2	2	0	Ormiston, G., C.B.E. ... ..	10	10	0
Morgan, D. J. ... ..	1	0	0	O'Shea, J. C. ... ..	5	5	0
Morgan, J. H. ... ..	1	9	0	Oswald, J. W. ... ..	1	0	0
Morgan, P. F., M.A. ... ..	1	11	6	O'Sullivan, J. V. ... ..	1	0	0
Morris, C. F. ... ..	3	3	0	Otsing, G. ... ..	1	0	0
Morris, L. R. ... ..	10	6	0	Owen, S. ... ..	1	1	0
Morrison, H. T. ... ..	1	1	0	Owen, W. A. ... ..	1	1	0
Morrison, T. S. ... ..	10	10	0	Owens, P. R. ... ..	3	3	0
Morton, A. ... ..	3	3	0	Oxton, D. T. ... ..	1	1	0
Morton, J., O.B.E. ... ..	1	1	0				
Morton, J. R. ... ..	2	2	0	Palmer, J. ... ..	1	1	0
Morton, T. ... ..	5	0	0	Palmer, J. E. ... ..	2	2	0
Mosey, H. Y. ... ..	10	10	0	Palmer, L. W. ... ..	5	5	0
Mosey, J. Y., Paymaster Cdr., O.B.E., R.D., R.N.R.(ret.) ... ..	10	10	0	Palmer, R. P. ... ..	2	2	0
Muckle, W. P. ... ..	10	6	0	Pappius, S. W. ... ..	2	0	0
Muir, J. M. ... ..	2	0	6	Parker, E. H. ... ..	50	0	0
Mulhearn, T. J. ... ..	2	8	6	Parker, H. A. ... ..	10	10	0
Mumtaz, I. K., Capt.(E), R.P.N. ... ..	5	5	0	Parker, J. B., O.B.E. ... ..	10	0	0
Munby, M. A. ... ..	2	0	0	Parker, M. W. E., Lieut.-Cdr.(E), R.N.(ret.) ... ..	2	0	0
Mundie, J. D. B. ... ..	2	0	0	Parker, W. E. ... ..	10	6	0
Munns, A. W., Lieut., D.S.C., R.N. ... ..	3	3	0	Parnell, C. S. ... ..	1	8	0
Murray, G., O.B.E. ... ..	1	1	6	Parry, E. U. ... ..	2	2	0
Murray, J. L. ... ..	1	1	0	Parry, J. M. B. ... ..	1	0	0
Murray, R. G., Rear-Admiral, C.B., C.B.E. ... ..	2	0	0	Parsons, E. D. ... ..	1	10	0
Murray, R. H. ... ..	3	3	3	Parsons, J. T. ... ..	3	3	0
Murray, R. M. ... ..	7	7	0	Parsons, N. A. ... ..	2	2	0
Murrison, A. R. ... ..	1	1	0	Parsons, R. W. ... ..	7	6	0
Musker, H. ... ..	1	1	0	Paszyc, A. J., Ph.D. ... ..	1	1	0
Mussett, G. A., M.B.E. ... ..	2	2	0	Paterson, A. ... ..	5	0	0
Myers, N. J. ... ..	2	0	0	Patrawala, J. A. ... ..	5	0	0
				Patterson, G. ... ..	1	7	6
				Paul, A. ... ..	5	5	0
Nailer, D. N. ... ..	1	1	0	Payne, J. E. M. ... ..	6	6	0
Narayanan, K. K. ... ..	13	9	0	Peacock, J. ... ..	5	5	0

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Name	£	s.	d.	Name	£	s.	d.
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Pearse, N. A. ...	1	1	0	Renaut, F. W. ...	5	0	0
Pearson, G. H. ...	1	1	0	Rendle, W. F. ...	1	0	0
Peck, F. H., Lieut.-Cdr., M.B.E., S.A.N.F. ...	2	2	0	Renfrew, J. S. ...	1	0	0
Peebles, A. ...	1	1	0	Revans, B. T. ...	1	1	0
Pemberton, A. G. ...	1	1	0	Reynolds, A. C. ...	2	2	0
Pemberton, E. ...	10	6		Rhynas, J. A. ...	21	0	0
Pennell, D. ...	1	1	0	Riach, J. G. ...	2	0	0
Perkins, J. N. ...	1	1	0	Richardson, E. H. ...	3	3	0
Peterson, A. S. ...	2	0	0	Richardson, W. A., Lieut.(E), E.M.S. ...	1	1	0
Phillips, C. T., Capt., O.B.E., R.D., R.N.R. ...	2	2	0	Richmond, Sir J. R., K.B.E., LL.D. ...	1,500	0	0
Phillips, G. H. ...	2	2	0	Riddell, A. R. ...	1	1	0
Phillips, N. ...	2	2	0	Ridley, H. ...	5	0	0
Pigott, J. H., Eng. Lieut.-Cdr., R.A.N.R.(S) ...	1	14	0	Ridley, J. J. ...	2	2	0
Pigott, S. T. ...	3	3	0	Rielly, J. B. ...	3	0	0
Pilcher, R. R. ...	1	5	0	Ringshaw, H. ...	5	13	6
Pinches, H. E. ...	1	0	0	Rischmiller, G. L. ...	2	2	0
Pinel, C. E. ...	4	6		Ritchie, C. ...	6	9	11
Pinkney, R. B. ...	31	10	0	Ritchie, F. G., O.B.E. ...	30	10	0
Pinnock, W. T. ...	2	2	0	Robb, F. ...	5	0	0
Pinto, R. ...	2	2	0	Robb, J. L. ...	1	0	0
Piper, J. J., Lieut., D.S.C., R.N. ...	1	0	0	Robbie, D. R., M.B.E. ...	10	10	0
Pitt-Jones, W. K. ...	5	0	0	Roberts, J. ...	1	10	0
Pittas, P. P. C., B.Sc. ...	2	2	0	Roberts, T. M. ...	2	2	0
Plastow, E. C. ...	1	0	0	Robertson, A., C.C. ...	100	0	0
Platt, W. E. W. ...	2	2	0	Robertson, A. J. ...	1	0	0
Plunket, P. ...	4	2	0	Robertson, Miss D. ...	5	0	0
Pobes, J. ...	12	0	0	Robertson, J. (In memory of W. G. Walton, Esq., Chief Engineer, s.s. <i>Lindenhall</i> ) ...	2	0	0
Porn, M. ...	25	0	0	Robertson, T. ...	2	10	0
Postlethwaite, W. E. ...	1	1	0	Robey, J. C. ...	1	1	0
Potter, C. J. ...	5	0	0	Robins, C. R. ...	2	1	6
Potter, F. E. ...	5	0	0	Robins, C. R. ...	5	17	4
Potts, V. ...	2	2	0	Robinson, A. H., Cdr.(E), R.N.V.R.(ret.) ...	1	1	0
Pounder, G. D. ...	1	1	0	Robinson, D. ...	5	0	0
Powell, P. S. ...	1	1	0	Robinson, E. ...	1	11	6
Powrie, R. P. ...	1	1	0	Robinson, E. F. B. ...	1	0	0
Pratt, J. A. ...	1	0	6	Robinson, M. ...	1	0	0
Prentice, C. ...	5	0	0	Robson, T. W. ...	3	3	0
Preshaw, R. A. ...	5	0	0	Rodgers, W. ...	10	0	0
Press, W. J. ...	2	2	0	Roffey, C. E. ...	10	10	0
Preston, J. J. ...	3	0	0	Ronald, W. ...	1	0	0
Prince, L. B. ...	3	3	0	Rooks, G. ...	5	5	0
Pringle, R. C. ...	10	0	0	Roorda, F. A. W. ...	2	2	0
Pritchard, Mrs. D. G. ...	2	2	0	Roper, F. W. ...	2	2	0
Probert, R. C. ...	2	2	0	Rorison, D. G. ...	5	0	0
Procacci, G. ...	2	0	0	Rose, F. H. ...	1	0	0
Procter, R. H. ...	5	5	0	Rosen, R. W. ...	1	1	0
Proudfoot, J. C. ...	10	0	0	Ross, D. F. ...	5	5	0
Pugh, F. H., Eng. Cdr., O.B.E., R.N.(ret.) ...	4	2	0	Ross, L. ...	5	0	0
Purves, F. W., Cdr., R.A.N. ...	1	1	0	Ross, T. W., Eng. Capt., O.B.E., M.Sc., B.M.E., R.A.N.(ret.) ...	5	5	0
Quarrell, A. P. ...	5	0	0	Rosseter, P. S. ...	2	0	0
Quayle, J. ...	1	11	0	Rotter, J. ...	5	0	0
Rabady, P. N. ...	5	0	0	Rouse, A., B.Eng. ...	5	5	0
Rabaey, F. L. ...	2	0	0	Rouse, F. J. ...	1	1	0
Rabidge, W. F. ...	3	3	0	Routledge, J. ...	5	0	0
Radcliffe, J. E. ...	2	2	0	Rowe, R. H. ...	4	2	0
Raimondo, A. ...	12	4		Rowley, J. S. ...	2	2	0
Ralfs, C. A. G. ...	1	1	0	Roy, L. ...	5	0	0
Ramsay, J. W. ...	10	10	0	Russell, H. ...	10	0	0
Ramsden, J. S. ...	10	0	0	Russell, J. A. ...	4	6	
Rance, C. H. ...	1	1	0	Ryland, W. H., O.B.E. ...	1	1	0
Rashleigh, W. J. ...	3	3	0	Sahni, G. C., E.R.A. ...	10	0	0
Rawlings, P. H. ...	2	0	0	St. Jorre, G. de ...	1	1	0
Rea, P. K. ...	5	0	0	Sainsbury, C. B. ...	2	0	0
Reavill, L. W., Lieut., D.S.C., R.N. ...	2	2	0	Sakala, V. ...	1	1	0
Reed, A. H. B. ...	1	1	0	Salt, H. S. ...	5	5	0
Reed, J. J. ...	1	1	0	Sampson, W. ...	15	0	0
Reed, N. H. ...	2	2	0	Samson, C. ...	1	1	0
Reeves, B. ...	2	0	0				

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Sanderson, T. W. ... ..	5	5	0	Spearpoint, H. T. ... ..	5	5	0
Sanders, B., B.A. ... ..	5	0	0	Speechly, C. C. ... ..	10	10	0
Sandilands, A. ... ..	1	0	0	Speechly, P. C. ... ..	10	10	0
Saul, W. H., Cdr., R.N.R....	4	3	2	Speirs, J. ... ..	1	1	0
Saunders, K. A. ... ..	5	5	0	Spence, A. ... ..	1	1	0
Sawdy, E. J., Lieut.-Cdr., M.B.E., R.N. ... ..	2	10	0	Spendley, H. G. ... ..	1	0	0
Sayers, D. W., M.B.E., F.R.S.A. ... ..	2	0	0	Sprackling, G. H., Lieut.-Cdr., M.B.E., R.N. ... ..	2	2	0
Scales, J. S., Capt., R.E. ... ..	1	1	0	Stables, D. B. ... ..	1	1	0
Scanlan, M. W., Cd. Eng., R.N. ... ..	3	3	0	Stanbridge, C. H. (per annum) ... ..	1	1	0
Schwerenski, J. ... ..	2	17	0	Steele, J. E. ... ..	1	1	0
Schofield, E. ... ..	10	6		Steele, W. R., Eng. Cdr., R.D., R.N.R.(ret.) ... ..	5	5	0
Scorer, P. ... ..	3	3	0	Steele, Mrs. W. R. ... ..	2	12	0
Scott, C. M., Capt....	5	5	0	Steer, W. H. ... ..	1	0	0
Scott, F. S. ... ..	10	6		Stephen, Sir A. Murray, M.C., B.A. ... ..	50	0	0
Scott, S. ... ..	10	0		Stephen, J. G. ... ..	5	0	0
Scott, W. I. ... ..	1	5	0	Stephens, E. R. ... ..	1	1	0
Scullard, G. T. B. ... ..	5	10	6	Stephenson, B. ... ..	21	0	0
Seager, Sir G. Leighton, Bart., C.B.E., D.L., J.P.	10	10	0	Stepian, J. ... ..	1	5	0
Sears, A. W. ... ..	5	0	0	Steven, W. L. ... ..	1	1	0
Seales, G. ... ..	18	0		Stevens, I. K. ... ..	1	0	0
Sedgwick, S. ... ..	5	5	0	Stevenson, J. ... ..	2	0	0
Sephton, W. ... ..	10	6		Stevenson, R. A., Lieut.-Cdr., D.S.C., R.D., R.N.R. ... ..	2	2	0
Shannon, T. ... ..	10	0		Stewart, Sir Frederick C., D.L., LL.D., J.P. ... ..	200	0	0
Shapley, F. ... ..	2	2	0	Stewart, J. M. ... ..	3	3	0
Shaw, A. R....	5	0	0	Stewart, T. A. ... ..	3	3	0
Shrubsall, H. P. ... ..	1	1	0	Stewart, T. A. ... ..	2	2	0
Shutt, H. J. ... ..	10	6		Stirling, R. ... ..	10	0	
Sidell, L. A. W. ... ..	1	0	0	Stockdale, G. ... ..	2	2	0
Silley, G. F., C.B.E. ... ..	26	5	0	Stokoe, C. L. ... ..	5	5	0
Sim, J. ... ..	5	0	0	Storey, A. N. ... ..	5	10	6
Simmons, A. ... ..	1	1	0	Strang, J. W., M.B.E. ... ..	2	2	0
Simpson, J. ... ..	1	1	0	Stuart, J. B. ... ..	2	0	0
Simpson, P. A. M., Major	1	17	0	Stubbs, J. ... ..	10	0	
Sims, L. S. ... ..	2	10	0	Studd, C. S. ... ..	2	2	0
Sims, P. J. S. ... ..	2	2	0	Stutchbury, R. W. ... ..	12	6	
Sinclair, H. ... ..	100	0	0	Sunley, W. ... ..	2	2	0
Slater, B. F....	1	0	0	Swager, P. A. ... ..	1	1	0
Slater, C. W. L., Eng. Cdr., R.N.R.(ret.)	3	3	0	Swann, A. R. ... ..	1	1	0
Sledge, H. A. ... ..	1	1	0	Swinburne, A. H. ... ..	3	8	0
Sloan, J., M.Sc. ... ..	1	0	0	Sycamore, W. A. ... ..	10	10	0
Sloss, J. ... ..	10	6					
Small, G. ... ..	10	0	0	Talbot, F. B. ... ..	1	1	0
Small, J. ... ..	3	0	0	Taylor, A. ... ..	1	0	0
Smart, E. D., Lieut.(E), R.N.(ret.)	3	3	0	Taylor, G. ... ..	5	0	0
Smart-Dalgleish, J. G. C. ... ..	2	2	0	Taylor, G. ... ..	5	5	0
Smeaton, R., O.B.E. ... ..	20	10	0	Taylor, G. ... ..	20	0	0
Smethurst, J. M. ... ..	10	10	0	Taylor, H. ... ..	10	0	
Smit, R. F. N. ... ..	2	12	6	Taylor, H. H. ... ..	2	0	0
Smith, F. Colin ... ..	1	1	0	Taylor, H. T. ... ..	10	0	
Smith, D. Hastie, Eng. Cdr., R.N.(ret.)	2	2	0	Taylor, H. W. ... ..	3	3	0
Smith, E. C. ... ..	1	11	3	Taylor, J. H. ... ..	4	0	0
Smith, F. A. ... ..	2	7	0	Taylor, J. McFarlane ... ..	5	0	0
Smith, G. F. ... ..	2	0	0	Taylor, J. W. ... ..	3	0	0
Smith, James ... ..	4	0	0	Taylor, W. S. ... ..	1	1	0
Smith, J. D. ... ..	5	0	0	Teasdale, J. J. ... ..	2	2	0
Smith, J. F. ... ..	1	17	0	Teasdale, L. ... ..	1	11	6
Smith, J. H. ... ..	3	3	0	Temple, J. L. V. ... ..	5	5	0
Smith, J. L. ... ..	2	2	0	Terrey, E. J. ... ..	2	2	0
Smith, L. E....	1	0	0	Terry, F. W. ... ..	1	0	0
Smith, R. ... ..	5	0	0	Terry, G. W. ... ..	5	5	0
Smith, R. V. ... ..	1	1	0	Thaxter, E. E., Lieut.-Cdr., R.N....	1	0	0
Smith, S. ... ..	1	0	0	Thom, J. D., D.S.C. ... ..	3	3	0
Smith, S. A., M.Sc. ... ..	10	0	0	Thomas, A. D. ... ..	4	5	0
Snadden, J. ... ..	5	5	0	Thomas, I. J. ... ..	5	5	0
Snowdon, J. B. ... ..	1	1	0	Thomas, S. ... ..	7	6	
Soanes, E. G. ... ..	6	16	0	Thompson, F. ... ..	10	0	
Somerville, E. H. H. ... ..	4	5	0	Thompson, G. F. ... ..	1	1	0
Souchette, E. F. ... ..	5	0	0	Thompson, H. G. ... ..	5	0	0
Soutar, G. ... ..	1	1	0	Thompson, N. E. ... ..	10	0	0
Sowter, G. V. ... ..	10	6					

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Thomson, A. ... ..	2	2	0	Ward, F. C. A., Lieut.-Cdr., R.N. ... ..	1	0	0
Thomson, E. A. ... ..	10	10	0	Ward, L. V., B.Sc. ... ..	2	2	0
Thomson, J. ... ..	5	0	0	Ward, M. R. ... ..	1	1	1
Thomson, J. B. ... ..	1	1	0	Wardle, F., Lieut.-Cdr., R.N.R. ... ..	1	1	0
Thomson, J. O. ... ..	2	2	0	Wardropper, Mrs. M. ... ..	1	0	0
Thomson, J. P., Capt., O.B.E. ... ..	5	0	0	Warner, R. J. L. ... ..	1	1	0
Thorburn, K. C. ... ..	1	1	0	Warren, F. H. ... ..	1	0	0
Timpson, A. F. C., M.B.E. ... ..	21	0	0	Watkins, B. L., M.A. ... ..	1	0	0
Tobin, J. J., M.B.E. ... ..	2	2	0	Watkinson, P. ... ..	2	2	0
Todd, H. ... ..	2	0	0	Watson, A. G. S. ... ..	5	0	0
Tomlinson, W. ... ..	1	2	6	Watson, E. ... ..	1	0	0
Tonkin, B. C. ... ..	1	1	0	Watson, G. R., B.Sc. ... ..	1	6	0
Torrie, J. P.... ... ..	3	3	0	Watson, J. ... ..	5	0	0
Trail, A. J. F. ... ..	5	5	0	Watson, T. G. W. ... ..	5	5	0
Traill, J. H. D. ... ..	2	2	0	Watt, A., Cdr.(E), I.N.R.(ret.) ... ..	8	8	0
Train, G. R.... ... ..	10	6	0	Way, C. T. ... ..	5	0	0
Train, J. T. ... ..	1	1	0	Webb, E. C., Lieut., M.B.E., R.N. ... ..	2	2	0
Trenoweth, S. B., Eng. Cdr., R.I.N.(ret.)... ..	2	2	0	Webster, D. G., Major ... ..	5	0	0
Triolo, E. W. ... ..	5	0	0	Weeks, A. H. ... ..	10	10	0
Trotter, S. ... ..	2	0	0	Weir of Eastwood, The Right Honourable Viscount, P.C., G.C.B. ... ..	11,500	0	0
Tucker, W. T. ... ..	3	3	0	Weir, J. G., C.M.G. ... ..	1,500	0	0
Turnbull, G. D. ... ..	10	0	0	Weir, P. ... ..	1	0	0
Turnbull, G. M. ... ..	5	5	0	Weller, H. C. G., M.B.E. ... ..	3	3	0
Turnbull, J., O.B.E. ... ..	3	3	0	Wells, R. H.... ... ..	1	1	0
Turner, F. L. ... ..	1	0	0	Welsh, R. J., Wh.Ex. ... ..	10	10	0
Turner, Sir F. R. G., Eng. Vice-Admiral, K.C.B., O.B.E. (ret.) ... ..	5	5	0	Westwood, R. E. ... ..	5	0	0
Turner, G. H. ... ..	1	1	0	Wethered, V. D., B.Sc. ... ..	5	0	0
Turner, J. H. ... ..	2	2	0	Wharton, A. J. ... ..	2	2	0
Turner, N., Major ... ..	1	0	0	Whayman, W. M., Eng. Rear-Admiral, C.B., C.B.E. (ret.) ... ..	5	5	0
Turrell, L. A. ... ..	2	2	0	Wheadon, H. J. ... ..	5	0	0
Tweedy, W. N. ... ..	1	1	0	White, A. H. ... ..	1	2	6
Tye, C. ... ..	5	0	0	White, D. H. ... ..	2	0	0
Tyler, J. H., D.S.C. ... ..	1	1	0	White, H. F. ... ..	10	6	0
Unthank, G. R. ... ..	5	5	0	White, J., Cdr.(E), D.S.C., R.N.(ret.) ... ..	2	0	0
Urry, F. E. ... ..	5	0	0	White, N. E. ... ..	2	2	0
Valentine, W. M. ... ..	2	0	0	White, P. J. ... ..	12	6	0
Vanston, J. J. ... ..	50	0	0	White, T. G. ... ..	2	2	0
Veal, W. C. H. ... ..	10	6	0	Whiteley, C. W. ... ..	1	1	0
Vella, D. ... ..	3	0	0	Whittle, E. A. G., Capt., R.N. ... ..	3	3	0
Ventouris, S. ... ..	5	5	0	Whittle, J. ... ..	1	0	0
Vesuna, K. R. (per annum) ... ..	1	0	0	Whitty, S. B., Cdr., R.N. ... ..	10	0	0
Vickerstaff, H. ... ..	3	0	0	Whyte, S. ... ..	1	1	0
Vickery, J. P. ... ..	5	5	0	Widgery, A. C. ... ..	17	0	0
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Waddell, W. P. ... ..	5	0	0	Wilkinson, B. A. ... ..	1	0	0
Wadia, M. M. ... ..	2	0	0	Willcocks, J. D. ... ..	1	0	0
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Walker, A. J. ... ..	1	1	0	Williams, M. D. E.... ... ..	5	0	0
Walker, Elizabeth L. ... ..	5	5	0	Williams, N. ... ..	1	5	5
Walker, F. ... ..	2	2	0	Williams, R. N. ... ..	1	1	0
Walker, G. W. ... ..	1	1	0	Williams, W. H. ... ..	20	0	0
Walker, H. H. R. ... ..	5	0	0	Williamson, A. S. ... ..	5	0	0
Walker, J. I. ... ..	1	1	0	Williamson, D. J. ... ..	1	1	0
Walker, R., D.S.M.... ... ..	1	0	0	Williamson, L. ... ..	1	1	0
Walker, T. ... ..	8	0	0	Williamson, W. H.... ... ..	2	2	0
Walker, T. H. V. ... ..	3	3	0	Willmott, E. W. ... ..	1	17	3
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Wallace, R. M. ... ..	5	5	0	Wilson, A. H. ... ..	3	3	0
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