

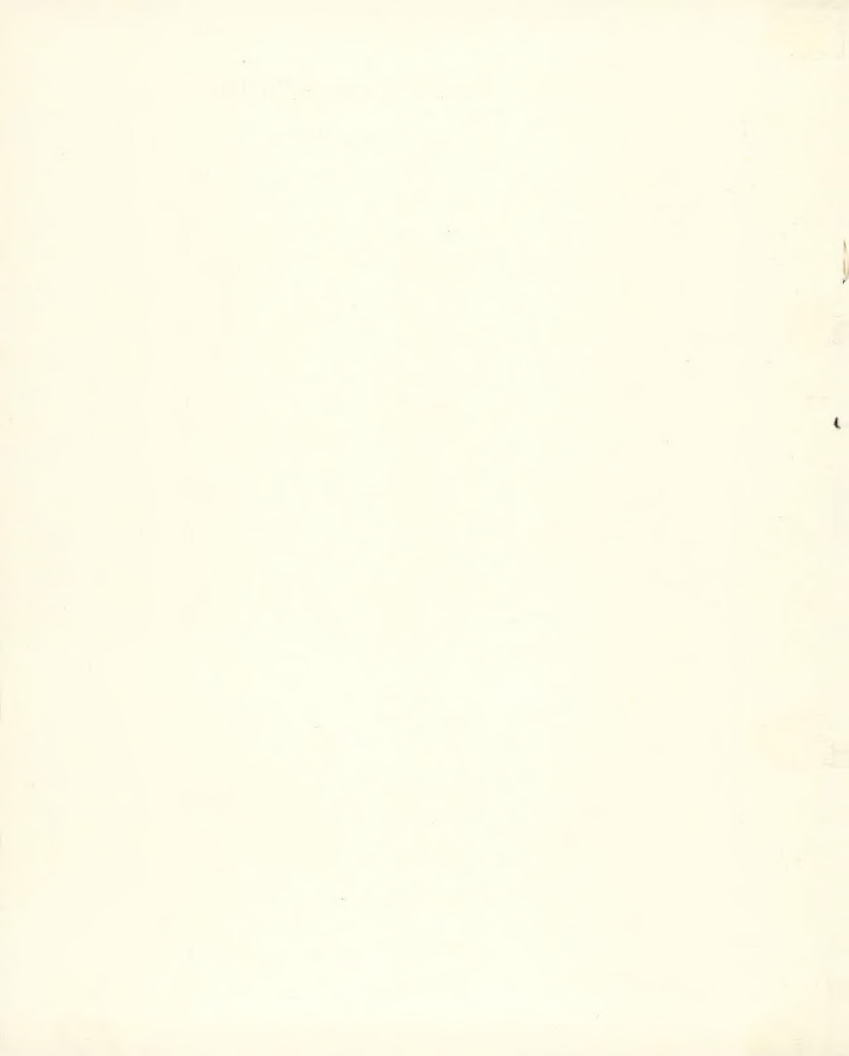
## ELECTION OF MEMBERS—CORRECTIONS.

To be added:

Name.	Grade (* Transfer).	Issue.	Page.
Atkinson, Roy Cedric ... ..	Associate ... ..	October	170
Beresford, John ... ..	Graduate ... ..	August	129
Blenkinsop, William Stafford ... ..	Member ... ..	August	129
Boerke, Hendrik Teunis ... ..	Member ... ..	October	170
Brooks, John Morrison ... ..	Associate ... ..	October	170
Clarke, John Harwood ... ..	Member ... ..	August	129
Crawford, John Scott ... ..	Member ... ..	August	129
Cummings, James ... ..	Associate ... ..	August	129
Dalrymple, William ... ..	Member ... ..	August	129
Dumpleton, Owen W. ... ..	Student ... ..	October	170
Edgar, David Shaw ... ..	Member ... ..	August	129
Everard, Francis Vincent... ..	Member ... ..	August	129
Grant, Robert William ... ..	Member ... ..	August	129
Groom, Reginald William ... ..	Associate ... ..	August	129
Harle, John ... ..	Associate ... ..	August	129
Hill, Thomas Sidney ... ..	Member ... ..	August	129
Kinmond, James Lawrence ... ..	Associate ... ..	August	129
Lamb, William ... ..	Associate ... ..	October	170
Leigh, Louis Charles ... ..	Member ... ..	October	170
Le Pla, Frederic Robert... ..	*Member ... ..	October	170
Lissenden, Alan Walter John ... ..	Graduate ... ..	October	170
Livingstone, John Swanson ... ..	Associate ... ..	August	129
Manley, Joseph ... ..	Member ... ..	February	21
Mansfield, John William Ellis ... ..	Student ... ..	October	170
Marshall, John James ... ..	Associate ... ..	August	129
Melly, Peter Emerson ... ..	Student ... ..	August	129
Middleton, John Henry Dudley ... ..	Member ... ..	October	170
Millar, Donald Eric ... ..	Associate ... ..	August	129
Murray, David Easson ... ..	Associate ... ..	August	129
Nelson, Arthur Henry ... ..	Member ... ..	October	170
Nicholas, Ernest Alfred Lanyon ... ..	*Member ... ..	August	129
Paterson, John McDonald ... ..	*Member ... ..	August	129
Redwood, Henry John James ... ..	Member ... ..	August	129
Richards, Arthur Edwin ... ..	*Graduate ... ..	August	129
Roorda, Folkert Albert William ... ..	Member ... ..	August	129
Scott, David ... ..	Member ... ..	August	129
Scott, John ... ..	Associate ... ..	August	129
Selman, George Sidney ... ..	*Member ... ..	August	129
Steele, George Wyllie ... ..	Associate ... ..	August	129
Vitt, George ... ..	Associate ... ..	August	129
Weaver, Douglas Ralph ... ..	Member ... ..	August	129
Whitton, David ... ..	Associate ... ..	August	129
Williamson, Henry Carmichael... ..	*Member ... ..	August	129
Williamson, Leslie ... ..	*Member ... ..	August	129
Wilson, William Cyril ... ..	Graduate ... ..	October	170
Youngson, William Makepeace... ..	Associate ... ..	October	170

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Keay, Douglas Graham Hayward James ... ..	Associate ... ..	June	100
should read:			
Hayward, Douglas Graham ... ..	Associate ... ..	June	100
Keay, James ... ..	Associate ... ..	June	100



*Transactions of the*  
**INSTITUTE of MARINE ENGINEERS**

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INCORPORATED BY ROYAL CHARTER, 1933.

*To Advance the Science and Practice of Marine Engineering.*

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Vol. LV.



Session 1943-44.

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*President:* Engineer Vice-Admiral SIR GEORGE PREECE, K.C.B.









The President.

ENGINEER VICE-ADMIRAL SIR GEORGE PREECE, K.C.B.



## ENGINEER VICE-ADMIRAL SIR GEORGE PREECE, K.C.B.

Engineer Vice-Admiral Sir George Preece, K.C.B., began his distinguished career in the Royal Navy by entering the Royal Naval Engineering College, Devonport, as Engineer Student in 1900. From fifth place on the list at entry he attained and held first place from the end of the first year throughout the full course, which he completed in four years instead of the normal five, passing out of the R.N.E. College in 1904 with the Newman Memorial Prize.

In consequence of his exceptional ability and rapid progress, he was passed on for the higher course of training in engineering at the Royal Naval College, Greenwich, which he entered in 1904 with the rank of Engineer Sub-Lieutenant. He was advanced to the rank of Engineer-Lieutenant in 1906, and left for sea service in 1907, serving as Watchkeeper in H.M. battleship *Britannia*, of the Channel Fleet. In 1908 he was appointed Senior Instructional Officer in H.M.S. *Cumberland*, a first-class cruiser employed as a sea-going cadet training ship. His success in this post led to his appointment in 1910 to the Royal Naval College, Greenwich, as Assistant to the Professor of Applied Mechanics, and Instructor in Machinery Design.

From 1913 and during the early part of the 1914/1918 War, Sir George served at sea in H.M.S. *Lion*, Flagship of the First Battle Cruiser Squadron, Captain Chatfield in command, wearing the flag of Admiral Sir David Beatty. He was promoted to Engineer Lieutenant-Commander in February, 1914, and was the Senior Engineer Officer in H.M.S. *Lion* when she took part in the Battles of Heligoland Bight and the Dogger Bank. In the action of the 24th January, 1915, when the ship was put out of action, Sir George showed conspicuous ability and gallantry in the management of the machinery department during the battle and afterwards, being mentioned in despatches for this action.

In 1916 he was recalled from the Fleet and appointed to the Staff of the Engineer-in-Chief at the Admiralty, where he was engaged on work in connection with battle-ships and battle-cruisers, and in particular on the design of the machinery for H.M.S. *Hood*, the famous battle-cruiser of 42,100 tons and 144,000 s.h.p. He was specially promoted to the rank of Engineer-Commander in January, 1917.

In December, 1917, he was appointed to the Royal Naval Engineering College, Devonport, where he re-started the training of engineer officers, becoming Executive Officer of the College in 1919 upon the appointment of Engineer-Captain Lashmore in command. He remained at this post until 1921, when he went to sea again for two years as Engineer Officer of H.M.S. *Delhi*, Flagship of the First Light Cruiser Squadron, Atlantic Fleet, wearing the flag of Admiral Sir James Fergusson and later Admiral Sir Hubert Brand. During this period he also carried out the duties of Squadron Engineer Officer.

In 1923 he was appointed to the Royal Naval College, Greenwich, as Professor of Marine Engineering. Here, in addition to the normal work of lecturing to engineer officers, Lieutenants (G) and (T), and others, he inaugurated courses for Senior Engineer Officers and lectures to the Senior Officers Technical Course, composed of senior executive officers, at Portsmouth. He was promoted to the rank of Engineer-Captain in 1925.

In 1927 he returned to sea, first in H.M.S. *Emperor of India* and later in H.M.S. *Rodney*, as Fleet Engineer Officer, Home Fleet, on the staff of Admiral Sir Hubert Brand. In 1928 he was recalled to the Admiralty and appointed Assistant Engineer-in-Chief. In June, 1930, he was promoted to the rank of Engineer Rear-Admiral and reappointed to the Engineer-in-Chief's Department. In the New Year Honours of 1933, he was awarded the C.B. (Military), and in 1935 he was appointed Deputy Engineer-in-Chief.

In September, 1936, he became Engineer-in-Chief of the Fleet in succession to Engineer Vice-Admiral Sir Harold Brown, K.C.B., and at the same time was promoted to the rank of Engineer Vice-Admiral. In 1938 he was awarded the K.C.B. (Military).

In 1942, Sir George was given permission to retire at his own request in order to facilitate promotion of junior officers. Throughout his whole service he has proved himself an outstandingly capable and enterprising officer, possessing a well-informed, practical and progressive mind with a broad outlook, and he stands very high in the esteem of the ship-building and marine engineering interests of the country.

He is a Vice-President of the Institution of Mechanical Engineers, a Vice-President of the Institution of Naval Architects, and a Past Vice-President of the Institute of Metals.

Sir George pays a warm tribute to his wife, *née* Dorothy Mary Lord, to whom he was married in 1910, for her unflinching help, sympathy and encouragement during the stress and strain of his responsible and exacting duties throughout his distinguished career.



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The Engineering Public Relations Committee { General Committee: A. C. HARDY, B.Sc.  
Executive Committee: THE SECRETARY.  
Sub-Committee for Scotland: L. C. DAVIS.  
The Institution of { Advisory Panel on Engineering Abstracts—A. C. HARDY, B.Sc.  
Civil Engineers { Conference on Engineering Education and Training: General Committee—T. A. BENNETT, B.Sc.  
University College, Southampton: Advisory Committee. Department of Marine Engineering—  
ENG'R. COM'R. W. A. GRAHAM, O.B.E., R.N.R.(ret.).

### British Standards Institution:—

Petroleum Industry Section:  
Technical Committee PT/2, Fuel Oils } J. L. CHALONER.  
Sub-Committee PT/2/1, Diesel Fuel Oils }  
Gears and Gear Materials for Cranes and Derricks—A. E. CRIGHTON.  
Manila Rope—  
Component Parts of Engine Indicators }  
Engineering Symbols and Abbreviations } J. CALDERWOOD, M.Sc.  
Standardisation of Letter Symbols }  
Technical Committee on Keys and Keyways } G. T. MARRINER.  
Marking of Valves, Flanges and Fittings }  
Air Receivers } R. S. KENNEDY and J. CARNAGHAN.  
Mechanical Industry Committee }  
Spot Welding Machines }  
Protective Lenses for Welding Operators } R. S. KENNEDY.  
Sub-Committee on Gas Welding of Steel Structures }  
Sub-Committee on Electrodes for Shipbuilding Purposes— } E. F. SPANNER, R.C.N.C. (ret.).  
Solid Fuel Industry Committee SF/— }  
SF/1, Nomenclature and Definitions for Solid Fuel } E. W. GREEN, O.B.E.  
Burning Appliances }  
SF/1/2, Steam Generators and Boilers }

Iron and Steel Industry Committee—J. TURNBULL.  
Technical Committee on Land Boilers }  
" " " Ships' Materials } J. CARNAGHAN.  
Sub-Committee on Marine Flanges }  
Standardisation of Pump Tests—R. M. GILLIES.  
Technical Committee on Fans—J. DUNLOP and T. A. BENNETT, B.Sc.  
Technical Committee on Steel Castings for use at High Temperatures—  
T. H. BURNHAM, B.Sc.  
Technical Committee on Calibration of Carburettor Jets—A. F. EVANS.  
Technical Committee on Documentation—B. C. CURLING.  
Machine Tool Tests and Alignments—G. THOMPSON, M.Eng.  
Ships' Side Scuttles and Frames (Type A)—F. M. BURGIS.  
Technical Committee on Hand Hammers—J. CARNAGHAN and R. S. KENNEDY  
Electric Cables for use on board Ship—N. H. SWANCOAT and P. H. DALLISON  
Coupling Guards for Machinery—T. A. CROMPTON.  
Sub-Committee ME/12/6, Anchor Chains } CAPT. B. WARWICK  
Committee on Boiler Water Tests—H. J. WHEADON,  
Technical Committee ME/9, Spanners—T. A. CROMPTON.  
Standardisation of Valves—H. SCOTT.

### The Institute of Marine Engineers Guild of Benevolence.

#### General Committee.

Chairman: J. CARNAGHAN.

#### Committee:—

Vice-Presidents: A. E. CRIGHTON, R. S. KENNEDY, S. N. KENT, F. W. YOULDON.  
Members of Council: J. CALDERWOOD, M.Sc., H. S. HUMPHREYS, and A. F. C. TIMPSON, M.B.E.  
Members of the Guild: T. A. CROMPTON, G. SPECK, Capt. B. WARWICK, and H. J. WHEADON.

Hon. Treasurer: A. ROBERTSON, C.C.

Secretary: B. C. CURLING.

#### Executive Committee.

Chairman: J. CARNAGHAN.

#### Committee:—

Vice-President: S. N. KENT.

Members of Council: J. CALDERWOOD, M.Sc., A. F. C. TIMPSON, M.B.E.

Members of the Guild: T. A. CROMPTON, G. SPECK, Capt. B. WARWICK, and H. J. WHEADON.



# Minutes and Proceedings at the Fifty-Fifth Annual General Meeting, March 10th, 1944.

CHAIRMAN: Engineer Vice-Admiral SIR GEORGE PREECE, K.C.B., President.

The fifty-fifth Annual General Meeting of the Institute was held at the Connaught Rooms, Great Queen Street, London, W.C.2, on Friday, March 10th, 1944, at 11.30 a.m. The President, Engineer Vice-Admiral Sir George Preece, K.C.B., was in the chair, and was supported by Mr. J. Calderwood, M.Sc. (Chairman of Council), Mr. S. A. Smith, M.Sc. (Vice-Chairman of Council), Mr. A. Robertson, C.C. (Honorary Treasurer) and Mr. B. C. Curling (Secretary).

The Chairman said that in view of the amount of business to be transacted he did not propose to make any introductory remarks. He sometimes thought that ex-Naval officers were selected for such positions as he occupied because they were notoriously silent, and there was therefore ground for hoping that if the speech-maker was not witty he would at least be brief.

His first duty must be to ask the Scrutineers to retire and examine the voting papers. He was sorry that they would miss the pearls of oratory which would fall in their absence.

The Secretary then, at the invitation of the Chairman, read the Annual Report (see p. viii).

The Chairman, in calling on Mr. Robertson, the Hon. Treasurer, to present the Financial Statement, mentioned that he had acted as Treasurer for nearly twenty-five years.

The Hon. Treasurer then presented the Annual Financial Statement (see p. xxi), and his own report thereon as follows:—

"Messrs. West & Drake, our Accountants, submit their Annual Report. As you all have copies, I will only read their certificate of verification. You will notice that there is a considerable increase in our Revenue Account, in spite of the fact that expenditure has materially increased over that of last year. The following items call for special comment:—

Staff salaries and clerical assistance (£2,194 3s. 8d.) are increased by £93 11s. 2d. due to advance in salary in some cases. You will have noted from the Annual Report that owing to the increased amount of work, we have added to our staff by the engagement of Mr. F. D. Clark. Consequently salaries payable for 1944 will be very materially increased. The basis for a full year on the present scales of pay will amount to £2,420, inclusive of War Bonuses, but exclusive of £212 5s. 0d. we are paying to Mr. G. Lambert to partially make up his Army pay to his salary. It does not include salary paid for abstracting which is always charged to account of Transactions, amounting to £300, of which £30 is recoverable from the Institution of Naval Architects.

STAFF PENSIONS INSURANCE (£595 0s. 1d.).—The heavy increase of £385 14s. 9d. over that of the previous year is entirely due to the readjustment of the Pension Scheme and to the fact that two premiums have been paid during the year to cover pension provision for our Secretary. The total annual premiums now being paid amount to £396 14s. 0d.

It is unfortunate that we have not been able to make the pensions as generous as visualised when the scheme was originated 11 years ago. To enable the Council ultimately to increase the pension benefits a Pension Fund has been created. A sum of £100 has been accordingly debited to Revenue and appears in the Balance Sheet under "Pension Fund". It is hoped that this will be increased annually.

REPAIRS (£134 15s. 9d.).—Repairs, although increased by £126 17s. 3d. include the fitting of a new Hot Water Heating Boiler at our premises in the Minories, as well as the redecorating of the Flat at the top of the building, and plumbing.

The Reading Room and Library have also been redecorated, but the cost of this work will appear in next year's accounts.

Our Architect is submitting a Claim to the War Damage Commission for repayment of money already spent on account of War Damage repairs, amounting to approximately £150. This should be paid very soon. Our main Claim will be submitted as and when the work is carried out.

SUBSCRIPTIONS AND CONTRIBUTIONS TO OTHER BODIES FOR RESEARCH amount to £72 11s. 0d., as against £81 9s. 6d. last year.

The principal contributions were made to the following:—

British Electrical and Allied Industries Research Association, £15.

William Froude Tank Research Fund, £21.

British Non-ferrous Metals Research Association, £25.

Sundry other items, £11 11s.

SUNDRIES (£394 1s. 6d.) requires explanation. It includes quite a number of small items, as well as Christmas gratuities to Staff of £60, Secretary's travelling expenses and a special contribution of £50 to the British Red Cross Society for the provision of marine engineering technical books for despatch to Prisoners of War—the British Red Cross Society undertake to distribute them. This, we hope, has been of assistance to some of our Members, although obviously not confined to them.

Insurance costs (£85 18s. 10d.) are actually lower than those of the previous year, due mainly to the fact that the rate per cent. under the War Damage Business Scheme was reduced during the past year. It is more than probable that this figure will have to be increased owing to the necessity of additional cover for increased cost of replacements.

TRANSACTIONS.—The cost of printing these has gone up by £218 14s. 6d., although it is largely counterbalanced by the decreased cost of printing advertisements, with the resultant net increase on Transactions of £73 19s. 6d.

LIBRARY AND READING ROOM ACCOUNT.—This stands at £95 19s. 0d., as against £38 12s. 5d. the previous year and is mainly due to the fact that we have prepared and published a new Library Catalogue at a cost of £44 11s. 0d. 300 copies were printed and are being sold to members at 2s. 6d. each.

DEPRECIATION OF FURNITURE is reduced from £107 3s. 6d. last year to £44 17s. 0d. this year, due to the fact that in the previous year we wrote off the value of the Electrical Fittings amounting to £62 7s. 10d.

RESERVE FUND.—The Council approved the placing of another £1,000 to reserve for repair and renewal of premises, this fund now standing at a total of £2,000. This is quite independent of the Sinking Fund created by the purchase of Leasehold Redemption Policies in past years, totalling £23,000 payable in 2011/12, the present surrender value being £2,597.

SUBSCRIPTIONS.—It is gratifying to note the satisfactory increase in subscriptions, almost entirely those of Full Members, and amounting to £806 9s. 3d. The other grades show a reduction, excepting that of Graduates, which shows only a small increase.

ENTRANCE FEES are also up by £76 15s. 0d., reflecting the increase in the Membership.

The Rent receivable shows a slight increase of £15 12s. 3d. We are, however, much better off than this, as the Government are responsible for the payment of Rates on the portion of the premises occupied by them. This is why the item for Rates of £151 12s. 10d. under "Rent, Rates, etc." compares with £368 7s. 8d. paid in the previous year.

Interest received (£730 19s. 5d.) on our investments is increased by £61 13s. 8d. due to increases in the holdings of Government Securities.

Turning to the Balance Sheet, Members will note the fact that only the Akroyd Stuart Award and the Marriner Prize were awarded last year. (The Denny Gold Medal and the Institute Silver Medal were nominally awarded, but owing to prevailing conditions the medals could not be obtained). The consequence is that all the other Award Accounts are higher by the addition of one year's interest. The Council decided, owing to the high standard of two of the Papers submitted, to make a first and a second Akroyd Stuart Award of £50 and £25 respectively.

"THE RUNNING AND MAINTENANCE OF MARINE MACHINERY".—This publication again shows a handsome balance of £53 16s. 4d. Henceforward these balances will largely disappear as although there has been a fresh issue of this book the cost of printing it is very materially increased. The Council thought, however, that it would be inadvisable to increase the selling price materially. It will now be sold at the price of 8s. 6d. per copy (which will little more than cover the cost of printing and trade discounts). This has proved to be a very popular book.

"ELECTRICITY APPLIED TO MARINE ENGINEERING".—This publica-



tion shows a balance of £51 19s. 11d., which will shortly be transferred, together with the balance of £53 16s. 4d. from "The Running and Maintenance of Marine Machinery", a total of £105 16s. 3d., to the credit of the Guild of Benevolence.

The first edition is exhausted and the book is being reprinted—it will be sold at 8s. 6d.

A new publication fathered by the Institute, "Naval Architecture and Ship Construction", by Mr. R. S. Hogg, has also proved to be a best seller. The first edition of 2,000 is nearly sold out, and 2,000 reprints are now being made. This book has been published by Messrs. J. Munro & Co., Ltd., by arrangement with the Institute. After defraying all costs, including royalties, there remains a profit on this edition of £103 0s. 3d. The price of the first edition was 7s. 6d., and the reprint will be sold at 8s. 6d. per copy.

**INVESTMENTS.**—These have been increased in the past year by the purchase of £1,000 3% Defence Bonds and £1,000 3% Savings Bonds, 1960/70.

Unfortunately for us, the Government have decided to call in the 5% Conversion Loan on the 1st of May this year. We hold £6,000 of this Stock, purchased at a cost of £6,240 8s. 0d. This will therefore represent a Capital depreciation of £240 8s. 0d. and an annual reduction of revenue, if reinvested on a 3% basis, of £120 per annum.

The net results of the year's finances show a balance on Revenue Account of £1,376 17s. 1d. as against £589 10s. 0d. last year, with a corresponding increase of our Capital Account to £34,443 1s. 3d.

When we met last year we were on the eve of "Wings for Victory" Week, and at that time we purchased £1,000 3% Savings Bonds. This year we are on the eve of "Salute the Soldier" Week, and I have no doubt we shall be able to help the National effort by investing at least another £1,000 in Government securities.

**GUILD OF BENEVOLENCE.**—The past year has been a notable one as far as the Guild of Benevolence is concerned.

The Guild Accounts include the first year's contribution of £1,000 by Mr. H. A. J. Silley, £500 by Mr. B. L. Silley, and £10,000 from Messrs. R. & H. Green & Silley Weir, Ltd.

In this connection we had anticipated the re-payment from the Income Tax Authorities of £1,500, but this has not yet come to hand.

Messrs. H. A. J. Silley and B. L. Silley have promised to pay these sums annually for seven years, which, together with the Income Tax recoverable annually will mean a total addition to the Capital Funds of the Guild of approximately £21,000, subject of course to any variation in Income Tax which may occur during the next seven years. This, with the £10,000 donated by Messrs. R. & H. Green & Silley Weir, Ltd., will mean nearly £31,000 accruing to the Capital Funds of the Guild.

**THE JOHN H. SILLEY MEMORIAL FUND** will be shown as a separate fund in the Balance Sheet from year to year. The interest from this Fund will very materially increase the Revenue Account.

At this point I should like to put forward a suggestion (though I may not be strictly in order in doing so—it is for Members to say if they disagree) that considering the invaluable assistance which Mr. H. A. J. Silley has rendered to the Guild of Benevolence, he be elected a Vice-President of the Institute as a mark of our appreciation.

We have also gratefully to acknowledge donations from quite a large number of firms and individuals representing additions to Capital of no less than £1,334 13s. 5d., and I think it only right to say that our President has been particularly assiduous, during the past year, in pressing the claims of the Guild of Benevolence in many quarters. We have to thank him for his efforts and to congratulate him on his success in this connection.

There were in all 95 donations during the year, seven of which were for 100 guineas, and the many small donations are also greatly appreciated.

The Capital Fund of the Guild of Benevolence now stands at £35,575 17s. 5d., a net increase during the year of £13,068 5s. 7d., of which £11,500 is represented by the John H. Silley Memorial Fund.

Apart from the Capital Fund there are investments on the Revenue Account totalling £2,312 17s. 0d. This, added to Ground Rents due, Income Tax recoverable, Relief paid in advance and Cash at Bank and in hand, brings the total balance at the end of the year on Revenue Account to £3,542 9s. 5d., which I think you will agree, when taken in conjunction with the Capital Account, shows a very satisfactory state of affairs.

The Income and Expenditure Account of the Guild of Benevolence shows an Income from annual subscriptions, donations (including the contribution from King George's Fund for Sailors of £200), Property Investments, Dividends and Bank Interest, of £1,969, of which £1,151 6s. 6d. has been distributed in pensions and assist-

ance in various directions during the past year, an increase of £210 18s. 0d.

Administration costs, including Auditors' fees, amounted to £95 6s. 4d., a very low figure, leaving a balance of Income over Expenditure for the year of £722 7s. 2d.

32 new Life Members were elected during the year.

Last year I informed you that Ground Rents on all properties which we hold had been paid in full. Recently, however, Notice of Retention has been served in respect of two houses, of which we are the Ground Landlords, in Bull Road, West Ham. This, however, only means deferment of the receipt of these small Ground Rents. They will have to be paid in full when the properties are rebuilt, as they will be, after the War. The lessees are entitled under the War Damage Amendments Act to refrain from paying the Ground Rent for the time being.

I will do my best to answer any questions that Members may desire to raise".

**The Chairman**, while remarking that it seemed rather shattering to find that a Treasurer of twenty-five years' standing did not know whether he was in order or not, said that the members in General Meeting were entitled to elect a Vice-President. He thought the suggestion to elect Mr. Jack Silley a Vice-President was an excellent one, and agreed that the Institute should show its appreciation of what had been done for the Guild of Benevolence, in which all the members were interested. Mr. Jack Silley was the senior representative of the firm, and presumably of the family, at the moment.

**Mr. Robertson** thereupon formally moved the election of Mr. H. A. J. Silley as a Vice-President of the Institute.

**Mr. T. A. Crompton**, who seconded, said that the Institute owed a tremendous debt of gratitude to the Silley family and to their firm for all the help that they had rendered to it over a number of years, and this should be recognised by the election of Mr. Jack Silley as a Vice-President of the Institute.

**Mr. J. Carnaghan**, speaking as Chairman of the Guild of Benevolence, warmly supported the proposal. The late Mr. John Silley, he said, had been a strong supporter of the Institute and established the Guild of Benevolence, which had since been magnificently supported by the Silley brothers.

**The Chairman**, in putting the motion, said there was in fact a vacancy for a Vice-President at the moment. He regarded the proposal as, in a way, a tribute also to the late Mr. John Silley.

The motion was carried unanimously, with acclamation.

**Mr. G. R. Hutchinson** moved the adoption of the Report and Accounts. His first impulse, he confessed, after hearing such an excellent Report was to say "Jolly good show!" and sit down, but he realised that something more than that was required. The first point to which he desired to draw attention was the chart of membership; the upward trend was something about which they would all be very pleased. On the other hand, he noticed that there were 51 lapsed members, and if a little more information could be given about that it would be interesting. It seemed to him to be regrettable that when the curve of membership was going up something could not be done to stop the little slipping back which those lapses represented. Possibly the Membership Committee could do something about it.

The programme of papers was another subject for congratulation. It was a good and well-balanced programme. If he might single out one paper for mention, it would be the one read by Mr. Burn. He had been struck by the breadth and length, and one might almost say the depth, of that paper. It was the right type of paper to have at the present time, and the Institute was to be congratulated on its appearance in the TRANSACTIONS. The members would be delighted to see one of Dr. Dorey's senior men following in his footsteps and presenting a splendid paper, and they would wish to congratulate Mr. Forsyth on winning the Denny Gold Medal. There was one thing that he did not like about the section of the Report dealing with awards, and that was that the junior members seemed to be rather backward in coming forward. He wondered whether that was due to the war, or whether the monetary attraction was insufficient. The Institute should ponder over that and try to do something about it.

The Guild of Benevolence was getting into a very Nuffield-like state of health. All the members should put their shoulders to the wheel and see whether they could not do even more, because in the next few years there would undoubtedly be need for it, and so they should do their best to increase the amount of money at its disposal.

The financial position of the Institute was excellent, and did



not call for any comment; and in that connection he would like to say a word in praise of the Honorary Treasurer, Mr. Robertson, who had done a great service for the Institute, for which he deserved the thanks of all the members.

As a publisher, he looked at the cost of printing shown in the Revenue account with envious eyes; he thought that the Institute was getting its TRANSACTIONS printed very cheaply, and felt that he would like to have a private word with the printer, if he could get hold of him. He had only one mild point of criticism, and that was the cost of advertisements, nearly £400.

**The Hon. Treasurer** explained that that was the cost of printing the advertisements which appeared in the TRANSACTIONS, which was shown separately.

**Mr. Hutchinson** said he had misunderstood the item, and thought it related to the cost of advertising the publications of the Institute. Finally, he would like to refer to the statement that Sir George Preece had attended all the meetings of the Council and of the various Committees throughout his term of office. That was not only unusual but a very fine effort on Sir George's part, and he hoped it would be a precedent about which future Presidents would think seriously; Sir George had given them something to ponder over before accepting office. He hoped that other institutions would notice that paragraph in the Report, and obtain as live Presidents as the Institute had had.

**Mr. E. F. Spanner**, who seconded the motion, endorsed all that Mr. Hutchinson had said, and added that all the members felt very grateful to the Secretary and his staff, who had encountered many difficulties but had always put up a very good show. The members would sympathise with them over the question of pensions, because the position at the moment must be disappointing, but he was sure that the Council would rectify it in due course.

One thing to which he looked forward every month was the receipt of the TRANSACTIONS of the Institute, which he thought would bear comparison with any similar publication of any other institution. He believed that most members now took the volume when it was printed at the end of the year, and he would like to suggest that when the monthly copies of the TRANSACTIONS became redundant by the issue of the volume they should be sent to the Seafarers' Education Service or to some other body of that kind. They were too valuable to be thrown away as salvage, and they would be very much welcomed by many people at sea and afford them an opportunity which they would not otherwise have of learning of the work which was being done by the Institute.

He hoped that many authors would take advantage of the publicity to be obtained by writing their books through the pages of the TRANSACTIONS. Some years ago, when he wrote a book, he believed that if he had published it first in the TRANSACTIONS he might have sold a good many more copies than he did. The publication was a great credit to the Institute in every way.

In conclusion, he would like to refer to some of the "back room boys" of the Institute. A large amount of space in the Report was occupied by reports from members who were serving on Committees. Some of those Committees could be very boring, and thanks were due to those members who gave so much time and effort to attending them and contributing information which they had at their disposal to enable the Committees to produce specifications and so on which were very helpful.

The motion was carried unanimously.

**The Chairman** presented the Denny Gold Medal to Mr. G. H. Forsyth, M.Sc., Member, and the Institute Silver Medal to Mr. L. C. Burrill, B.Sc. He mentioned that the actual medals could not be presented because medals were not allowed to be struck during the war—"There is", he said, "no striking in the medal world"—but the certificates were handed over. He also presented the certificate of the Herbert Akroyd Stuart award to Mr. Denis Rebbeck, M.A., Associate Member. Mr. J. H. Nelson, who had been awarded the W. W. Marriner Memorial Prize, was not present to receive it.

**Mr. J. Calderwood, M.Sc.** (Chairman of Council), proposed a cordial vote of thanks to the President. The President, he said, had set an excellent example of brevity in his conduct of the meeting, which personally he proposed to follow. He would like to substantiate, however, what had been said about the amount of work which the President had done. Never before had the Institute had a President who had done anything like so much work for it in every direction. Not only had Sir George undertaken all the ordinary duties which fell to a President whether he attended meetings or not, but he had attended every Council and almost every Committee meeting held during the year and every General Meeting at which

a paper was read. In addition to that, he had done a great deal of most useful work for the Guild of Benevolence, which had to thank him for a substantial part of the large donations received during the year. (Applause).

**Mr. S. A. Smith, M.Sc.** (Vice-Chairman of Council), who seconded the motion, remarked that the Institute had never had a President who deserved its thanks more than Sir George Preece. Sir George had held one of the pre-eminent positions in the marine engineering world, that of Engineer-in-Chief of the Royal Navy, to whose insistence on the finest workmanship and materials in engine construction the whole engineering profession was indebted. Reference had already been made both in the Report and during the meeting to the fact that Sir George had attended all the Council and nearly all Committee meetings, but personally he would like to add how much the members of the Council had appreciated Sir George's sound advice on the many problems which came before them. The vote of thanks was usually accorded to a retiring President, but happily that was not so on the present occasion, because Sir George could look them all in the face and say, without fear of contradiction, "I go; I come back". (Applause).

The vote of thanks was put by Mr. Calderwood and carried unanimously, with acclamation.

**The Chairman** said he had thoroughly enjoyed everything that he had done; he liked the people with whom he worked and the way in which they did their business. Incidentally, he had always intended at some time in his life to improve his technical education, which hitherto he had had no time to do, and he had been able to do so by attending the meetings of the Institute. The reference to him in the Report as giving advice "on all matters under consideration" sounded as though he was one of those people who had something to say about everything, but he thought in fact there had been times when he had remained silent, when matters about which he knew nothing were under discussion. He very much appreciated the kind words of the Chairman and Vice-Chairman of the Council.

**The Chairman**, quoting the Report of the Scrutineers (Messrs. G. B. Plows and C. J. Hampshire) on the result of the ballot for the election of Officers and Members of Council, announced that the following had been elected:—

As President for Session 1944-45:

Eng'r Vice-Admiral Sir George Preece, K.C.B.

As Vice-Presidents for Sessions 1944-45-46-47:

London: R. M. Gillies, W. D. Heck, B.Sc., G. J. Isaac, H. J. Vose, Eng'r Rear-Admiral W. M. Whayman, C.B., C.B.E., W. T. Williams, O.B.E., B.Sc., Wh.Ex., and F. W. Youldon.

Liverpool: S. B. Freeman, C.B.E., M.Eng.

Hull: G. A. Laing.

Newcastle-on-Tyne: Sir Summers Hunter.

Glasgow: J. Harbottle. (Since resigned and succeeded by L. C. Davis).

Leith: J. Houston.

Merchant Navy: W. C. Sutcliffe.

Vancouver, B.C.: J. Brydon.

Wellington, N.Z.: D. K. Blair.

New York: J. L. Luckenbach.

As Honorary Treasurer for Session 1944-45:

Alfred Robertson, C.C.

As Members of Council for Sessions 1944-45-46-47:

H. J. Wheadon, J. A. Rhynas, C. A. Marriott, R. T. Oxburgh, and J. Turnbull.

As Associate Member of Council for Sessions 1944-45-46-47:

Flight-Lieutenant R. A. Collacott, R.A.F., B.Sc.

**Mr. D. Gemmell** proposed a vote of thanks to the Scrutineers (Messrs. G. B. Plows and C. J. Hampshire) and to the Honorary Auditors (Messrs. W. D. Heck, B.Sc., and A. F. C. Timpson, M.B.E.) and their reappointment for 1944. Those gentlemen, he said, were "hardy annuals" and never failed the Institute. The Scrutineers had an arduous job, demanding rapid and careful work, but they must get some satisfaction from being the first to know who the successful candidates were. When one looked at the Balance Sheet and considered the amount of detail it contained one would realise that the Honorary Auditors had an important function to perform, but there would be general agreement that when they put their micro-meters over the work it could be felt that the financial interests of the Institute were in safe hands and the Balance Sheet in perfect order.

The motion was carried unanimously.



**Mr. A. P. Quarrell** moved "That this meeting records its sincere thanks to the Council and Officers of the Institute for their service during the Session 1943-44".

It was his privilege, he said, to express the thanks of the members of the Institute to the Officers and Council for the services which they had rendered during the past year. The corporate life of a body such as the Institute was to a very great extent determined by the work which was done by the Council and its Committees, and it gave the members a great deal of satisfaction to know that the Council had been so diligent in the consideration which it had given not only to questions affecting the domestic affairs of the Institute but to affairs of a much wider and technical interest. The members of the Council were all busy men, and had their full share of civic and business responsibility, and the members should be profoundly grateful to them for undertaking the additional responsibility of looking after the affairs of the Institute and giving to it their time, their energy and their experience.

He felt it right to refer also to the service and the unflinching courtesy which the members received from the Secretary and his staff, who were always ready to afford all the assistance which lay

in their power. He wished to associate with the vote of thanks the name of the retiring Chairman of Council, Mr. Calderwood.

The motion was carried unanimously.

**Mr. J. Calderwood**, who responded on behalf of the Officers and Members of Council and of the permanent staff, thanked Mr. Quarrell for his kind remarks. In these times, he said, it was remarkable how large a number of the Members of Council had been able to attend the meetings, most of which were held in the evenings, in the blackout, and at the Institute's premises, which were not very convenient to get to in these days.

He was particularly pleased that Mr. Quarrell had referred to the Secretary and staff, without whom the Council could do very little. They planned everything out and brought the business forward in a form which enabled it immediately to be discussed, and so reduced tremendously the amount of work which would otherwise have to be done. In thanking Mr. Quarrell for his kind words, therefore, he would like to support what he had said about the permanent staff. (Applause).

The meeting then terminated.

## Annual Report of the Council.

Throughout the past year the Council, with the aid of five of its standing committees, has maintained the Institute's activities on almost the pre-war scale, despite the numerous prevailing difficulties. The Council is greatly indebted to Sir George Preece, who, since taking the presidential office in March, has regularly attended the meetings of the Council and of the various standing and special committees, rendering valuable assistance and advice on all matters under consideration. The Council is highly gratified by Sir George's acceptance of their invitation to accept nomination for re-election as President for a further year.

### Membership.

As shown by the accompanying table and chart, the net result of the changes in the various classes of membership during the year is a renewed upward trend in the curve of total membership. In view, however, of the many engineer officers of both the Royal and Merchant Navies who are qualified for membership but have not yet sought election, there is abundant scope for recruiting efforts on the part of members, especially seagoing members in either of the two Naval Services.

Grade.	1st Jan., 1943.	Transfers		Elected.	Died.	Resigned.	Lapsed.	Total 31st Dec., 1943.
		From	To					
Past Presidents ...	15			1	2			14
Honorary Members	2							2
Members ...	2,990		25	121	56	20	51	3,009
Companions ...	42			1	1	1		41
Associate Members	371	10	3	13	6		7	364
Associates ...	536	17	3	132	6		8	640
Graduates ...	89	4	1	6	1			91
Students ...	61	1		13	1	1	1	70
Totals ...	4,106	32	32	287	73	22	67	4,231

### Obituary.

The losses by death during the past year are recorded in the obituary notices at the end of this Report. Again the year's toll includes many deaths due to enemy action. In all cases the Council's deep sympathy has been conveyed to the next of kin. The obituary list includes two names which will have been noted with particular regret, namely those of Lieut.-Com'r. Sir August B. T. Cayzer, Bt., R.N.(ret.), and Sir James Fortescue Flannery, Bt., Past-Presidents of the Institute, to whom special tribute was paid in obituary notices in the March and October TRANSACTIONS respectively.

### Council.

At the meeting of the Council held on the 30th March, Mr. J. Calderwood, M.Sc., was elected Chairman of Council and Mr. S. A. Smith, M.Sc., Vice-Chairman for the 1943/44 Session. At the same meeting it was unanimously resolved that the Immediate Past-Chairman (on this occasion Mr. H. J. Wheadon) be co-opted to serve on the Council for the ensuing year in an advisory capacity, without power to vote. With this exception, no changes in the personnel of the Council occurred during the year.

The Council wish to record their appreciation of the services rendered during their three years of office by the retiring Members

and Associate Member of Council, Messrs. W. S. Burn, J. Calderwood, R. F. Thompson, A. F. C. Timpson, W. L. Watson and E. V. Hartley.

### Vice-Presidents.

*London.*—Mr. R. Rainie's resignation as a Vice-President for the London area has been regretfully accepted by the Council.

*Merchant Navy.*—Mr. J. Wyld, D.S.O., has been elected to succeed Mr. R. Windrim (retired).

*Glasgow.*—Mr. L. C. Davis has been elected to succeed Mr. J. Harbottle (retired).

### Representation of the Institute on Outside Bodies.

The following re-elections, changes of representation, and new election have taken place during 1943:—

*British Corporation Register of Shipping and Aircraft.*

Mr. W. F. Brown re-elected.

*Merchant Shipping Advisory Committee.*

Mr. H. S. Humphreys elected vice Mr. J. B. Harvey (retired).

*Royal Naval Reserve Advisory Committee.*

Mr. H. S. Humphreys elected vice Mr. J. B. Harvey (retired).

*Engineering Joint Council.*

Mr. J. Calderwood elected vice Mr. R. Rainie (retired).

BRITISH STANDARDS INSTITUTION.

*Technical Committee ME/9, Spanners.*

Mr. T. A. Crompton elected vice Mr. A. F. C. Timpson (retired).

*Technical Committee ME/81, Valves for Marine Purposes.*

Mr. H. Scott elected to this newly-

appointed Committee.

*Institute of Welding.*

Mr. J. Turnbull elected vice Mr. T. R. Thomas (resigned).

### Papers.

The following papers have been published in the TRANSACTIONS during 1943, those marked \* with discussion:—

Issue.	Subject.	Author.
January.	Discussion: Cargo Ships and Propelling Machinery adapted to War Conditions.	W. S. Burn, M.Sc., M.I.Mar.E.
February.	*Ships' Lifeboats and Davits.	E. W. Blocksidge.
March.	Discussion (continued): Cargo Ships and Propelling Machinery adapted to War Conditions.	W. S. Burn, M.Sc., M.I.Mar.E.
April.	Propelling Machinery for Small Craft.	A. Caldwell, M.I.Mar.E.
	Discussion (continued): Cargo Ships and Propelling Machinery adapted to War Conditions.	W. S. Burn, M.Sc., M.I.Mar.E.
May.	*Crew Accommodation in Merchant Ships.	J. E. Church, M.I.Mar.E.



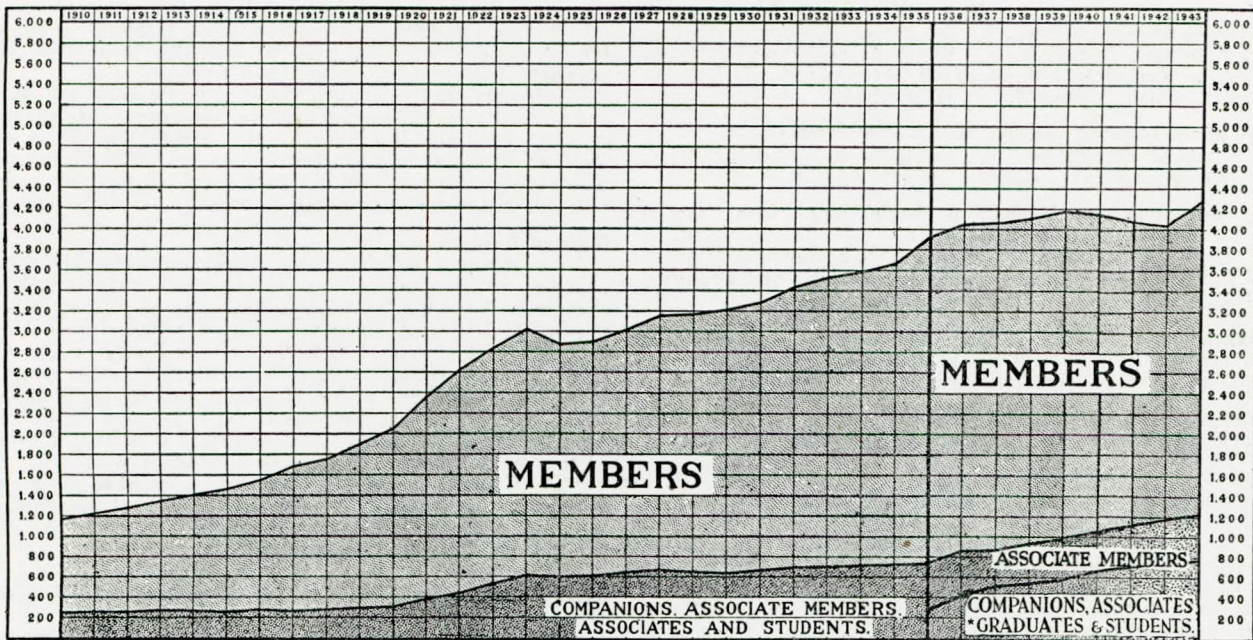


Chart of Membership.

June.	*Fibrous Glass Electrical Insulation.	A. M. Robertson, B.Sc.
July.	The Importance of Governing Arrangements for Marine Installations, with Special Reference to Torsional Vibration.	G. H. Forsyth, M.Sc., M.I.Mar.E.
August.	*Engine Oil Filtration and its Effects on Wear in Internal Combustion Engines.	T. W. Langley, B.Sc.(Eng.).
September.	*Whither Coal? Discussion (continued): Cargo Ships and Propelling Machinery adapted to War Conditions.	G. B. Baird, W. S. Burn, M.Sc., M.I.Mar.E.
October.	Experience Teaches. An account of some difficulties experienced with machines and men, with some reflections thereon. (Presidential Address). *Developments in Propeller Design and Manufacture for Merchant Ships.	Engineer Vice-Admiral Sir George Preece, K.C.B. L. C. Burrill, B.Sc.
November.	Marine Boilers.	T. B. Stillman.
December.	*Ventilation of Ships' Machinery Spaces.	J. K. W. MacVicar.

Engineer's Certificate of Competency, has been awarded, on the recommendation of the Ministry's Chief Examiner of Engineers, to Mr. J. H. Nelson, of Edinburgh.

#### Lloyd's Register Scholarship.

Four candidates sat the examination in 1943, and after a satisfactory interview by a representative of Lloyd's Register at Newcastle, the candidate who obtained the highest aggregate marks, William Blacklock, of Wallsend, was awarded the Scholarship by Lloyd's Register Committee. Unfortunately the Ministry of Labour declined to allow Mr. Blacklock to take up his proposed degree course at King's College, Newcastle, for the reason that, as he possessed a Higher National Certificate, his employment in industry must take precedence over further study at a university in present circumstances. Lloyd's Register Committee accordingly agreed to his taking up the Scholarship as soon as permissible after the war.

The Committee also agreed to the postponement of completion of Mr. H. Kay's Scholarship (the 1942 award) on his having been commissioned as a Sub-Lieut.(E.), R.N.V.R.

The tenure of the two previous Scholarships, held by J. Adam (1941) and B. Hildrew (1940), is also postponed for similar reasons. J. Sloan, the holder of the 1939 Scholarship, is continuing his degree course at Queen's University, Belfast, and has enrolled for the B.Sc. Final Part II course in Mechanical Engineering.

#### Institute Awards.

The Denny Gold Medal, for the best paper contributed by a Member during 1943, has been awarded to Mr. G. H. Forsyth, M.Sc., for his paper entitled "The Importance of Governing Arrangements for Marine Installations, with Special Reference to Torsional Vibration", published in the July TRANSACTIONS.

The Institute Silver Medal, for the best paper contributed by a non-member during 1943, has been awarded to Mr. L. C. Burrill, B.Sc., for his paper entitled "Developments in Propeller Design and Manufacture for Merchant Ships", published in the October TRANSACTIONS.

The Junior Silver Medal and Premium. No paper having been contributed by a junior member during 1943, there was no competition for this award.

The Herbert Akroyd Stuart Award, value £50, for the best paper contributed by a member or a non-member during the two years ending 30th April, 1943, on "The Origin and Development of Heavy Oil Engines", has been awarded to Mr. Denis Rebbeck, M.A., Associate Member. An abstract of his paper has been published in the January, 1944 TRANSACTIONS.

A second award, of £25, was also made to Mr. L. J. Holman, Member, in recognition of the high standard of his paper.

The W. W. Marriner Memorial Prize, value £5, for the best Engineering Knowledge script written by a candidate in the Ministry of War Transport's 1943 Examinations for the Second Class

#### Institute Prizes for Students of Technical Colleges in Marine Centres.

The Institute's annual prizes for students of Heat Engines at Technical Colleges and Schools in marine centres have been awarded as follows:—

- Hull Municipal Technical College: J. P. Welburn.
- Dundee Technical College: H. A. Moncur.
- University College, Southampton: W. F. Lee.
- Robert Gordon's Technical College, Aberdeen: I. R. Morrison.
- College of Technology, Belfast: A. Hackworth.
- Royal Technical College, Glasgow: M. C. Steele.
- Sunderland Technical College: G. Newell.
- Marine School of South Shields: S. Flynn.
- Technical College, Cardiff: W. Cashmore.
- Leith Technical College: J. Lewis.
- Municipal College, Portsmouth: L. V. Ratcliffe.
- West Ham Municipal College: R. M. Sunderland.
- Birkenhead Technical College: J. Palmer.
- Plymouth and Devonport Technical College: S. E. J. Nosworthy.
- Swansea Technical College: C. M. Black.
- Rutherford Technical College, Newcastle-on-Tyne: J. D. Smart.
- L.C.C. School of Engineering and Navigation: D. Richards.
- Greenock Technical School: E. D. Cook.
- West Hartlepool Technical College: J. E. Greenlees.
- City of Liverpool Technical College: T. Pinnington.
- Gateshead Technical Intsitude: J. H. Hall.



The Woolwich Polytechnic: C. A. Voice.  
The Polytechnic, Regent Street, W.1.: R. G. Plows.  
Constantine Technical College, Middlesbrough: A. T. Lawton.  
Technical School, Falmouth: J. H. Andrew.

#### **Thames Nautical Training College, H.M.S. "Worcester".**

The Institute Prize for 1943, for excellence in Marine Engineering, was won by Cadet A. Gray.

#### **National Certificates in Mechanical Engineering, with Special Reference to Marine Engineering.**

249 Ordinary Certificates, 75 Higher Certificates, 16 Ordinary Diplomas and 9 Higher Diplomas were endorsed by our President during 1943.

#### **Essay Competitions.**

The annual competitions for the various essay awards, with the exception of the Akroyd Stuart Award, are still in abeyance.

#### **Junior Section.**

The activities of this Section have not yet been resumed.

#### **Transactions.**

The special thanks of the Council are accorded to the authors of the papers received and published, with or without discussion, in the TRANSACTIONS during 1943. The Papers and Transactions Committee has endeavoured to keep members supplied through the TRANSACTIONS with the latest information, in the form of original papers and of abstracts from the technical Press, on all subjects of direct interest to marine engineers. The co-operation of members, by the submission of comments or suggestions, is again invited.

#### **Publication of Books.**

As predicted in last year's Report, the second edition of "The Running and Maintenance of Marine Machinery" and the first edition of "Electricity Applied to Marine Engineering" have been exhausted during the year. A revised and enlarged third edition of the former and a limited re-issue, slightly revised, of the latter book are being printed, and should be on sale by the date of publication of this Report.

The first edition of "Naval Architecture and Ship Construction" is rapidly approaching exhaustion, and reprinting is now being arranged.

#### **City Premises.**

As announced in the TRANSACTIONS, the Library and the Reading Room at The Minorities have been renovated and re-opened for the daily use of members. The Library is now in the charge of Mr. F. D. Clark, to whom communications on Library matters may be made by telephone (Royal 2974) or by letter addressed c/o Riley & Co., 85, The Minorities, London, E.C.3.

The revised Library Catalogue is now on sale at 2s. 6d. per copy.

#### **Staff.**

Several changes have occurred during the year. Mr. G. Lambert, the Secretary's assistant, was called up for military service in July. The serious dislocation and difficulty which this withdrawal might have caused in the small staff of the Institute have been largely avoided by the return, for the duration of the war, of the Secretary's former assistant, Mrs. J. C. Isbester, who rejoined the Staff in March.

The increasing work, however, has necessitated a further strengthening of the Staff, and in December the Council engaged Mr. F. D. Clark, A.I.Mar.E. (late Sub-Lieut.(E.), R.N.R., disabled by enemy action for further sea service) on one year's probation as a technical assistant to the Secretary. As above-mentioned, Mr. Clark's duties include those of Librarian, in which capacity his technical qualifications should prove valuable to members requiring library service.

In addition to Mr. Lambert, the other absentees on war service—R. Cane (Royal Army Pay Corps), and J. Willis (Merchant Navy)—are well and send news of their activities from time to time.

#### **Staff Pensions.**

Careful consideration by the Council of the report and recommendations of the Joint Finance and House Committee, referred to in the preceding Annual Report, resulted in the abandonment of the former scheme and rules, and the adoption of a reduced scale of pension provision in direct relation to the present finances of the Institute. Under the revised scheme, each post on the Staff will carry a fixed pension, irrespective of years of service and maximum salary, provided the member of the Staff concerned has been in the employment of the Institute for a minimum of 20 years

on reaching the ages of 65 and 60 years respectively for male and female employees. The various existing insurances have been adjusted in accordance with the new scale.

Subsequently the Council resolved to establish a Pensions Fund for the purpose of augmenting the pensions provided for by the existing insurance policies on the present pensions scale, and initiated this Fund by a contribution of £100 from the balance on Revenue Account. The Council recorded their hope that future Councils would make additions to this fund at their discretion.

#### **Guild of Benevolence.**

As Trustees of the Guild of Benevolence, the Council are happy to report that the past year has been an extremely fortunate one from the point of view of increase in the capital funds of the Guild. The magnificent sums already received from Mr. H. A. J. Silley, his brother Mr. B. L. Silley, and the Board of Messrs. R. & H. Green & Silley Weir, Ltd., together with the further sums promised by the two brothers under covenant, collectively donated as the John Silley Memorial Fund, and fully reported in the November TRANSACTIONS, will place the Guild on the capital basis visualized by the late Mr. John Silley on its foundation in 1934.

The Council has also been especially pleased to receive numerous substantial donations from various firms and individuals whose activities are connected, either directly or indirectly, with ship-building and marine engineering.

#### **Revision of the By-laws, with special reference to the constitution of the Council.**

At their May meeting the Council appointed a committee, under the chairmanship of Dr. S. F. Dorey, to consider the constitution of the Council and the By-laws of the Institute, with a view to making such amendments of the By-laws as may be considered desirable. The Committee is now actively at work, concurrently with the Membership Committee, the Education Group Executive Committee and the Examinations Board, who are jointly considering the By-laws relating to the qualifications for the various grades of membership.

#### **Marine Engineer Prisoners of War.**

Arrangements have been made through the Red Cross Society, to enable British marine engineer prisoners of war to take the Institute's examinations in 1944.

#### **Appointment of a General Purposes Committee.**

Arising from a discussion at their October meeting on possible collaboration with kindred institutions on research and other problems of mutual interest, the Council has appointed a General Purposes Committee to consider the policy of the Institute. The agenda of the Committee's first meeting will include the above-mentioned question of collaboration with other institutions.

#### **Supply of Junior Engineer Officers for the Merchant Navy.**

At their October meeting, the attention of the Council was drawn to the means which were being adopted by the Government to obtain junior engineer officers for the American built cargo ships which were being transferred to the British Merchant Navy. Under this scheme some 600 junior officers were to be recruited by upgrading firemen, greasers and donkeymen to this rank after an intensive course of training not exceeding 20 weeks at a special school set up for the purpose.

The Council's reasons for viewing this proposal with deep concern were conveyed to the Minister of Labour in a letter, signed by the President. This action led to a consultation between the Ministry of War Transport and Sir George Preece at the Ministry's request. A generally satisfactory assurance was given to Sir George on the various points raised in the Institute's letter.

#### **The Society of Naval Architects and Marine Engineers (New York).**

In response to a cabled invitation from the above Society to the Institute to be represented at the Society's 50th Anniversary Celebration Dinner in New York on November 26th, Mr. David Carswell, O.B.E., the Institute's Vice-President at Montreal, was appointed by the Council in the above capacity. He attended the day's conferences and the evening banquet, and was accorded a particularly warm welcome at the reception and by Admiral Land in his speech introducing the guests.

#### **Honours.**

The undermentioned members were awarded distinctions during 1943:—

*K.C.B. (Military Division).*

Eng. Vice-Admiral F. R. G. Turner, C.B., O.B.E. (Member).



*Knight Bachelor.*

Summers Hunter (Vice-President).

*C.B. (Military Division).*

Eng'r. Rear-Admiral J. Kingcome (Vice-President).

*C.B.E.*

A. Belch (Companion).

Eng'r. Rear-Admiral J. W. Milner (Member)—(Military Division).

Dr. J. Montgomerie (Member).

*O.B.E.*

R. Costigan (Member).

W. E. Dickinson (Member).

Com'r.(E.) G. S. Hepton, R.N.R. (Member)—(Military Division).

S. R. Ingold (Member).

G. A. McGregor (Member).

J. McWhirter (Member).

J. B. Parker (Member).

Com'r.(E.) F. M. Paskins, R.D., R.N.V.R. (Member).

R. S. Shaw (Member).

H. E. Upton (Associate Member).

*M.B.E.*

T. F. Collins (Member).

D. Hair (Member).

J. S. Martin (Member).

J. B. Smithson (Member).

*Distinguished Service Cross.*

G. W. Gunn (Member) (deceased).

Comm'd Eng'r. D. MacDonal, R.N. (Associate Member).

F. E. Mattocks (Member).

T. Spence (Member).

*Mentioned in Despatches.*

N. P. Jennings (Member) (deceased).

*Commendation.*

J. Brighouse (Member).

A. C. Brotherston (Associate).

W. E. Dickinson, O.B.E. (Member).

E. A. Hall (Member).

N. Howarth (Associate).

**Reports of Representatives on the Various Outside Bodies.**

Owing to war conditions a number of outside bodies and committees on which the Institute is represented have again been inactive during the year. These nil reports have not been included.

*The Engineering Joint Council.* Representatives: Mr. J. Calderwood, M.Sc.; Ex-officio, The President.

The Council has held one meeting only during the year, at which routine business was transacted; it was agreed that, in the absence of any important business, the November meeting should be cancelled.

*The Engineering Joint Examination Board.* Representatives: Mr. F. H. Reid, B.Sc., Wh.Ex.; Mr. R. F. Thompson, B.Sc.

Two meetings of the Board have been held during the year, on 30th June and 23rd November. At the annual meeting of the Board held on the first date the report for 1942/43, and a statement of accounts for the half-year to the 31st December, 1942, were adopted. The pass lists of the Common Preliminary Examination held overseas in October, 1942, and at home in April, 1943, were reported, and the following is a record of the examination results in October, 1942, and April and October, 1943:—

*Whole Examination:*

	<i>Entered.</i>	<i>Pass.</i>	<i>Referred.</i>	<i>Fail.</i>
October, 1942 ...	56	25	10	21
April, 1943 ...	184	32	16	39
October, 1943 ...	51	20	16	20

*One or two subjects:*

	<i>Entered.</i>	<i>Pass.</i>	<i>Referred.</i>	<i>Fail.</i>
October, 1942 ...	78	57	6	15
April, 1943 ...	97	66	8	23
October, 1943 ...	93	72	7	14

*Total Candidates (Home and overseas):*

October, 1942 ...	141
April, 1943 ...	200
October, 1943 ...	163 (Home) but only 149 attended examination.

It was agreed that the examination be held in 1944 on the 18th, 19th, 20th and 21st April, and on the 3rd, 4th, 5th and 6th October. The Committee of Moderators was elected for 1943/44, and it was agreed that the examiners for 1943 be requested to act for 1944.

Additions to the list of examinations accepted as exempting from the Common Preliminary Examination have been made as follows:—

(a) Leaving Certificate of the Department of Education, Eire, be accepted as exempting from the Common Preliminary Examination *provided* Honours are obtained in Mathematics, a Science subject and one other subject, and at least a pass in English and another subject. (Irish may *not* be one of the five subjects).

(b) The National Senior Certificate (Matriculation exemption) of the Department of Education of the Union of South Africa be accepted as exempting from the Common Preliminary Examination, provided that the requisite subjects, passed at one and the same sitting, be covered thereby.

(c) That the following examinations be accepted as exempting from the Common Preliminary Examination. (Note.—These examinations were previously recognised by the Institution of Civil Engineers and were accepted on the recommendation of the I.C.E. and not on requests from the Colleges).

(i) King's College, London. College Entrance Examination (Faculty of Engineering).

(ii) City and Guilds College Entrance Examination.

(iii) University College, London. College Engineering Matriculation Examination.

(iv) Technical College, Bradford. College Entrance Examination for the Engineering Diploma Course.

(v) University College, Southampton. Special Entrance Examination (Engineering Department).

*Corrosion Research Committee of the British Non-Ferrous Metals Research Association.* Representative: Mr. James M. Dewar.

No meeting of the Research Sub-Committee which is concerned with the corrosion of condenser tubes has been held during the year, but the work has proceeded actively in several directions. A great deal more information has been obtained on copper-nickel alloys of modified composition, and further progress has been made in the study of the part played by organic sulphur compounds in the sea water corrosion of non-ferrous metals. The work is concerned particularly with attempts to elucidate the mechanism of the effects of these sulphur compounds on corrosion, and with methods of control of these effects in laboratory investigations.

Useful progress has been made in a new investigation of the stimulation of corrosion by electrolytic action due to contact of different metals in the same circulating system. This work is, however, still in the preliminary stages.

Work on the dezincification of alpha beta brasses, including possible effects of various added elements in minimising this form of attack, has so far not led to any new developments, but has confirmed the important part played by the presence of 1 per cent. tin in naval brass.

*The Institute of Welding.* Representative: Mr. J. Turnbull.

The whole organisation for dealing with research work has been reconstituted during the past year and the foundation has been laid for fresh progress in the field of research. Already the Sub-Committee dealing with welding procedures has issued memoranda for the guidance of industry, and its investigations are being continued with a view to issuing, as soon as possible, recommendations for the welding of various types of joints.

The Third Interim Report on the Investigations of the Welding of Ship Structures has been issued. It gives the strengths of various plate stiffeners attached by welding as compared with similar stiffeners attached by riveting.

A Committee has been formed, and some progress has already been made in connection with the design and manufacture of welded bedplates and entablatures for reciprocating marine engines. The object in view is the definition of principles upon which the construction should be based.

*The Parliamentary and Scientific Committee.* Representative: Mr. H. S. Humphreys.

The Committee is energetically engaged on problems affecting the interests of engineers and scientists. Questions are frequently asked in Parliament as a direct result of the Committee's activities, and papers on general technical and scientific subjects have been given by scientists and eminent Members of Parliament.

*The British Electrical and Allied Industries Research Association: Joint Committee on Steels for High Temperatures.* Representative: Dr. S. F. Dorey.

Under industrial conditions comparison of steels by means of protracted long-time creep tests is impracticable, and a steel may have to be judged on the basis of a test in which the testing period is only a small proportion of the working life of the part. It thus becomes of importance to determine whether any relationship exists between the results of the various short-time and long-time creep tests which will permit the use of short-time tests not merely as a



means of separating good steels from bad, but also as the basis of design stresses intended to give satisfactory performance of the steel over working periods of considerable duration.

Over a period of several years a number of carbon steels in bar and plate form have been investigated to examine the variation of creep properties in relation to carbon content, process of manufacture and heat treatment, and other steels in the form of finished products such as superheater headers, superheater tubes and steam pipes, have been subjected to more comprehensive tests to determine their properties as a basis for design. In most instances the creep data have been obtained from creep tests extending to 1,000 hours, and in some cases to several thousands of hours. Opportunity was taken from time to time to measure the stresses corresponding to a number of the better known short-time creep limits.

Based on these investigations, a report has been prepared and will be issued shortly, giving indications of some of the difficulties and limitations concerned in the use of short-time creep results in the case of carbon steels and making suggestions for some rational basis for steps which might be taken to offset these difficulties and limitations in applying the results of short-time tests to estimation of design stresses.

Another report is in an advanced stage of preparation dealing with the creep properties of carbon-molybdenum steels in the form of a superheater header, superheater tube and steam pipe manufactured for service at temperatures above about 450° C. (840° F.). The investigation was carried out in a similar manner to that described in Ref. J/T134 issued last year, which dealt with carbon steels, and, as in that case, the object was to obtain data for the estimation of the stress-temperature relationships for from 0.1 to 0.5 per cent. creep in various periods up to 100,000 hours. The data should provide a satisfactory basis for design.

Work has been carried out on the determination of the austenitic grain size of a number of carbon steels at different temperatures, and on the relation between the austenitic grain size and the ferrite-pearlite structure, and also on the relation between it and the creep properties of a number of normalized steels compared with the same steels normalized and heated at 1,100° C. for six hours. Investigations have been made on the effect on the creep properties and micro-structure of these latter steels when reheated at temperatures between 600° C. and 1,050° C. A report is in course of preparation on the correlation between grain size and creep properties of carbon steels. Tests have been carried out on a 0.24 per cent. carbon steel at 450°, 550° and 650° C. to compare its creep properties in the normalized condition and the quenched and tempered condition.

Further work has been done during the year on the creep properties of 0.5 per cent. molybdenum steels in air, vacuum, steam and hydrogen.

*British Corporation Register of Shipping and Aircraft, Technical Committee.* Representative: Mr. W. F. Brown, B.Sc., Wh.Ex.

During the past year the Technical Committee has been mainly concerned with problems of design. In particular, the further development of all-welded construction and the increased use of pre-fabrication and preconstruction for ships is notable, whilst the application of welding to engine parts has also received consideration.

Investigations have been made on defects experienced in service; new and successful methods of repair have been devised, and valuable information obtained for guidance in future designs.

The Committee has also been closely associated with current developments in the design and production of high pressure boilers and steam turbines.

*Association of Special Libraries and Information Bureaux.* Representative: Mr. B. C. Curling.

The Association has had a year of exceptional activity, coincidentally with a great expansion of membership. The Annual Conference in September was designed for discussion of the rehabilitation of scientific and technical information services to meet the British, American and European needs after the war. The co-ordination of abstracting continues to receive attention.

*Joint Committee on Materials and Their Testing of Technical Institutions and Societies in Great Britain.* Representative: Mr. W. D. Heck, B.Sc.

During the past year the Committee has continued to explore the possibilities of holding joint meetings.

At the last meeting of the Joint Committee, some doubt was expressed as to the advisability of holding a joint meeting on the subject of Plastics; later on, however, the Joint Committee collaborated closely with the Institution of Mechanical Engineers in advertising a meeting at which the following papers were read and discussed: "Survey of Plastics from the Viewpoint of the Mechanical Engineer", by S. Livingston Smith, D.Sc.(Eng.), M.I.Mech.E., and

"Moulding Plant for Plastics", by J. L. Daniels, B.Sc., M.I.Mech.E. As a result of the publicity undertaken by the Joint Committee, several hundred copies of the papers were supplied to members of collaborating institutions and societies throughout the country, and a most successful meeting was held.

In addition, certain confidential suggestions made at the last meeting of the Joint Committee concerning possible subjects for joint discussion were investigated, and high authority was consulted, but it transpired that either security reasons forbade a discussion, or the subject did not show sufficient development to warrant a public meeting.

*The British Society for International Bibliography.* Representative: Mr. B. C. Curling.

The Council and the various Committees of the Society were in full activity throughout the year, and a number of valuable papers were read and discussed at the four Ordinary Meetings held during the year. In co-operation with the British Standards Institution the Society has continued to promote the application and extension of the Universal Decimal Classification, the publication of the English edition of which is proceeding as rapidly as prevailing conditions permit.

#### **British Standard Institution's Committees.**

*Petroleum Industry Section: Technical Committee PT/2, Fuel Oils; Sub-Committee PT/2/1, Diesel Fuel Oils; Committee PT/3/2, Turbine Oils.* Representative: Mr. J. L. Chaloner.

The Petroleum Industry Section has no action to report on the work of the first two Committees.

The PT/3/2 Committee on Turbine Oils has been considering some proposals for a revision of B.S. 489-1933, Turbine Oils, and has under consideration the following amendments:—

- (a) Inclusion of solvent-refined naphthenic-type oils.
- (b) Omission of Michie sludge test.
- (c) Modification of the method of test for deleterious sulphur.

*Technical Committee ME/17, Gears.* Representative: Mr. A. E. Crighton.

The Committee has commenced the revision of B.S. 545, Machine Cut B. Bevel Gears, which revision was to have been undertaken in 1940 but was deferred on account of the outbreak of war. Apart from this, the Committee's work has been confined to dealing by correspondence with minor modifications to the specifications.

*Air Receivers.* Representatives: Messrs. J. Carnaghan and R. S. Kennedy.

The following specifications were approved and submitted to the Mechanical Industry Committee:—

- Small fusion-welded steel air receivers;
- Pressure paint containers;
- Valves, gauges and other safety fittings for air receivers and for compressed air installations.

The Specification for Fusion-welded Steel Air Receivers has been revised.

*Mechanical Industry Committee.* Representatives: Messrs. J. Carnaghan and R. S. Kennedy.

The following Specifications have been approved for publication: Watertube boilers and their integral superheaters; Valves, gauges and other safety fittings for air receivers and for compressed air installations; Small fusion-welded steel air receivers; Pressure paint containers; Bronze oil retaining bearings; Butt welded blanks for cutting tools; Circular screwing dies; Cold-forged mild-steel rivets for cold closing; Diamond dies for wire drawing; Diamond tipped turning tools; Drilling jig bushes; Engineers' comparators; Non-ferrous pipes and piping for and in connection with land boilers; Schedule of tapping drills for tapped holes; Surface finish; Wartime finish of machinery and plant.

The following revised Specifications have been approved for publication: Copper plates, rods, tubes and pipes, and brass rods; Engineering drawing office practice; Galvanised steel strand signalling wire; Open ended spanners; Sockets for wire ropes for general engineering purposes; Solid drawn air receivers.

Amendments of the following Specifications have also been approved: Black bolts and nuts; Dial gauges; Gears for clockwork mechanism; Screwing taps; Screw thread gauge tolerances; Screw threads of Whitworth form; Twist and straight flute drills; Work-head spindles for grinding machines.

*Spot Welding Machines.* Representative: Mr. R. S. Kennedy.

No further work has been done regarding machines. Two Specifications, B.S. 1140, dealing with spot welding of mild steel assemblies, and B.S. 1138, standardizing a test piece for testing spot welds in aluminium, have been issued.



*Protective Lenses for Welding Operators.* Representative: Mr. R. S. Kennedy.

Revision of the Specification on this subject is under consideration.

*Solid Fuel Industry Committee SF/-.* Representative: Mr. E. W. Green, O.B.E.

The Committee has issued half-a-dozen new Specifications and two amendments during 1943. Most of these do not apply to marine engineering, but two of the new Specifications, B.S. 1041 and B.S. 1042, are notable achievements which have been under discussion since 1938.

B.S. 1041, Code for Temperature Measurement, is the first comprehensive industrial standard dealing with this subject to be issued in any country.

*Iron and Steel Industry Committee IS/-.* Representative: Mr. J. Turnbull.

No meetings have been held during the past year, but a few Specifications for minor items have been considered and published.

A Sub-Committee has been formed to prepare a draft specification for steel castings with a percentage of molybdenum. It is hoped the specification, when published, will be of use in the production of steel castings for parts operating at temperatures up to 950° F.

The possibility of agreement being reached between the British Commonwealth, the United States of America and this country on a common standard for specifying thicknesses of sheet metal and wire is receiving consideration, but no progress has yet been reported.

*Technical Committee on Land Boilers.* Representative: Mr. J. Carnaghan.

Specifications for watertube boilers and their integral superheaters, and for non-ferrous pipes and piping for and in connection with land boilers, have been approved and submitted to the Mechanical Industry Committee.

A Specification for electric butt-welded steel boiler tubes is being prepared.

Nothing further has been done in the preparation of Specifications for fusion welded steel and fusion welded copper vessels.

*Technical Committee IS/6, Steel Castings for use at High Temperatures.* Representative: Mr. T. H. Burnham, B.Sc.

A meeting of the Committee was held during the summer of 1943 and it was agreed that the preparation of a British Standard for Steel Castings for use at High Temperatures should be prepared. A Drafting Committee was appointed to undertake the detailed work of formulating proposals, and it is expected that the draft will be available for consideration at an early date.

*Technical Committee on Documentation.* Representative: Mr. B. C. Curling.

While the international work of this Committee is still perforce in abeyance, the British side of the work is being carried on as far as conditions permit.

*Technical Committee ME/12, Chains and Fittings.* Representative: Captain B. Warwick.

During the past year certain modifications have been made to the Specifications on eyeplates with collars and on eyeplates without collars. As these Specifications had to be reprinted and the type reset, the opportunity was taken to incorporate addenda which had previously been agreed and to omit other particulars which had become obsolete.

The necessary particulars were circulated to the members of interested Committees.

*Sub-Committee ME/12/6, Anchor Chains.* Representative: Captain B. Warwick.

At a meeting of the Committee on 24th November, it was decided as a war measure to revert to the 1930 edition of the Specification for short link cables, with certain agreed modifications.

*Committee ME/72, Boiler Water Tests.* Representative: Mr. H. J. Wheadon.

The Committee is divided into three sub-committees dealing with:—

(a) Recommended apparatus, analysis and routine tests.

(b) Recommended methods of sampling.

(c) Recommended treatment of feed and boiler waters as applied to marine boilers (cylindrical and watertube).

The sub-committee (a) is comprised of chemists who have placed their recommendations before the other two sub-committees.

The Institute is represented on the sub-committees (b) and (c), of which twelve meetings have been held during the past year. The Committee is now at the stage of completing a publication dealing with recommendations for apparatus, sampling, routine testing and treatment of feed and boiler waters as applied to marine cylindrical and watertube boilers. Special efforts are being made for this publication to be available at an early date. It should provide sea-going engineers with a standard reference on the subject of boiler water tests and treatment, and should be most useful to those engineers who have little or no experience in the treatment of watertube boilers.

*Technical Committee ME/9, Spanners.* Representative: Mr. T. A. Crompton.

Draft Specifications for various classes of spanners were discussed at a meeting held on 11th May, but no material final Specification has yet been adopted.

*Committee on Standardisation of Valves.* Representative: Mr. H. Scott.

Two meetings of the Committee have been held during 1943, the first on 31st August under the chairmanship of Sir William Reavell, and represented many interests. The discussion on this occasion was mostly explorative in character. It was considered that the original idea of standardisation was too wide in scope and it was submitted that a committee be set up to consider the standardisation of valves for marine purposes.

The second meeting was held on 17th November, and it was noted that apart from Mr. Scott, all the members of the Committee present represented valve manufacturers, no representative of those who would be the purchasers of the standardised valve, i.e. engine builders and shipbuilders, being included on the Committee. Under such circumstances no agreement could be reached. However, many aspects of the subject were discussed and the valve manufacturers undertook to prepare draft tables of the proposed standardisation for future discussion.

It was agreed that it was essential that representatives of the purchasing interests be invited to attend future meetings, and this is being arranged.

JAMES CALDERWOOD,  
*Chairman of Council.*  
B. C. CURLING,  
*Secretary.*

## Obituary.

THOMAS CANSFIELD ALDERSON (Member 3889) a Superintendent of the Eagle Oil & Shipping Co., Ltd., died on 24th September, 1943. He was born in 1884, educated at the Royal Grammar School, Newcastle-on-Tyne, and served his apprenticeship with Messrs. Ernest Scott & Mountain, Ltd., of Gateshead. From 1906-8 Mr. Alderson was employed as mechanical erector and engineering draughtsman with the Freer Iron Company and Scott & Mountain, Ltd. In 1908 he went to sea as fourth engineer, and after two years he obtained a Second Class Board of Trade Certificate, whereupon, in 1910, he was engaged as engineering draughtsman with Messrs. Richardsons Westgarth & Co., Ltd., and remained with that Company for two years. In September, 1912, he returned to sea as third engineer with the Port Line, leaving the Company to obtain his First Class Board of Trade Certificate; having done so, he was appointed inspector of new tonnage with Messrs. Jacobs & Barringer

in April, 1913, which firm at that time was supervising the construction of the initial Eagle Oil fleet. From September, 1914, until the end of the 1914-18 war, Mr. Alderson served in the R.N.R., when he joined the Eagle Oil & Shipping Co. as Assistant Superintendent, a position he held until his death. Mr. Alderson is keenly missed by the Directors of the Company as well as by members of the Staff, ashore and afloat.

WILLIAM LOTHIAN ALLAN, Lieut.-Com'r.(E.), R.N.R. (Member 7376) was born in 1899 and educated in Glasgow. He served an apprenticeship with Yarrow & Co., in Scotstoun, followed by about ten years' service with the British Tanker Company. He then left the sea to take up appointments first with Drysdale's on the Clyde, and then with the Rolls Royce Company as assistant chief designer. In 1940 he returned to sea in the Royal Naval Reserve and lost his



life on 27th March, 1943, as a result of an explosion on board the aircraft carrier in which he was serving as Commanding Engineer.

JOHN ANDERSON (Associate 9372) was born in 1907. His apprenticeship was served with the Manchester Dry Dock Co., Ltd., from 1923-24, with Messrs. David Rowan & Co., from 1924-26, and with the Caledon Shipbuilding & Engineering Co., Ltd., from 1926-28. From 1928-34 he sailed with the Anchor-Brocklebank Line as 6th to 4th engineer, and from 1934-38 as 3rd and then 2nd engineer with the Harwich Services; during this time he obtained a First Class Board of Trade Certificate. From 1938-39 he was on repair work with Smith's Dock Co., Ltd., and from 1939-40 on plant maintenance at Cochrane's steel works, Middlesbrough. In 1940, Mr. Anderson returned to sea as 2nd engineer first with the Constantine Steamship Line, and then with Messrs. J. & C. Harrison, Ltd.; in 1942 he was employed as 3rd engineer with the British Tanker Co. He was reported missing, believed killed, after the ship in which he was serving blew up in August, 1943. Mr. Anderson was awarded the O.B.E. on 11th May of that year, but was never able to attend an investiture owing to his short stays in this country.

JOHN ANNAL (Member 351) who died on 20th December, 1943, was employed for many years as seagoing chief engineer with the Peninsular & Oriental S.N. Co. On his retirement from their service in 1915 at the age of 60, he joined the Beldam Asbestos Co., Ltd., as Engineer Works Manager, and remained with them until 1932. Mr. Annal was closely concerned in the development and construction of the Auto-Klean Strainer during this period.

GEORGE AYRE (Associate Member 2596) was born at Leith on 2nd April, 1895. He was educated in Leith and at the West Ham Technical College, London, and his apprenticeship was served with Messrs. Caird & Rayner. In March, 1915, he went to sea in the service of the British India S.N. Company, Ltd., with which Company he remained until his death; he was appointed to the position of chief engineer in 1931, and his last sixteen years were spent in the Indian Coastal Service. Mr. Ayre was in England on leave when he died in the Seamen's Hospital, Greenwich, on 20th February, 1944. He leaves a widow, and three sons who are all in the Forces.

ROBERT BALFOUR, Honorary Vice-President (Member 364). (See obituary on page 10, Part 1 of Volume LVI).

JOHN WILLITT BASS (Associate Member 5573) died after a long illness on 24th March, 1943. He was born at Southampton on 7th April, 1899, and was educated first at Skerry's College and then at the University College in that City: his apprenticeship was served with Messrs. Day, Summers & Co., Ltd., of Southampton. He was wounded during his service with the Royal Field Artillery in France, and was sent home in 1918. After completing his apprenticeship Mr. Bass went to sea in the ships of the P. & O. Steam Navigation Co., Ltd., and obtained his First Class Board of Trade Certificate in December, 1926. In 1935 he transferred his services to the Marine Department of the Southern Railway Company; the last position he held was Chief Engineer of the Company's paddle steamers at Portsmouth. Mr. Bass leaves a widow and two young sons.

JOHN SUTTON BATHGATE (Member 5824) was born in Liverpool in September, 1902. He was educated at Lister Drive School and at Toxteth Technical School, Liverpool, and served his apprenticeship with Messrs. David Rollo & Sons, Ltd., in Liverpool. Shortly after the completion of his apprenticeship he became a seagoing engineer in the employ of Messrs. Alfred Holt & Co., and sailed in their ships for the next eighteen years, for some considerable time as second engineer. At the time of his death at sea through enemy action in December, 1942, Mr. Bathgate was employed by Messrs. Smith, Hogg & Co., of West Hartlepool. He was well spoken of by his employers as a loyal and reliable officer, and the loss of his devoted affection is keenly felt by his wife and little daughter, as well as both his parents.

MARK BEARPARK (Member 8741) died at Buenos Aires on the 25th July, 1943, aged 56, as the result of a motor accident; he was buried in the British cemetery in that town. He served his apprenticeship with Messrs. William Gray & Co., of Hartlepool, from 1901-7, and then went to sea, serving throughout the last war with the India Office Shipping Company. In 1924 he joined the New Zealand Shipping Co., Ltd., as third engineer, and continued in their employment until the date of his death. He was appointed Chief Engineer of the "Rangitiki" in 1935, and was in the "Jervis Bay" incident. Mr. Bearpark had outstanding ability as a marine engineer and was highly esteemed by his colleagues, being known and respected

in many of the world's ports where his long years of service had taken him. He was considerate and generous to the younger members of the profession, being always ready to give them the benefit of his knowledge and experience. Mr. Bearpark is survived by his widow.

IAN BROWNE (Member 8743) was born in Cowes, Isle of Wight, in April, 1899. He was educated there, and in 1912 commenced an apprenticeship with Messrs. Samuel White & Co. His apprenticeship was interrupted by the last war, and during 1918 and 1919 he served first for a short time in France and then with the army of occupation in Germany. He returned to Cowes to complete his apprenticeship, after which he suffered fourteen months of unemployment before being appointed as a seagoing engineer with the British India S.N. Co. He stayed with that Company until the outbreak of war in 1939, and then spent two years as Temporary Lieut. on the patrol ship "Chakdina", stationed at Aden. He returned to the British India S.N. Co. and was Chief Engineer of the hospital ship "Vita", when he left her to sail for this country as passenger in the "Empress of Canada" in the hope of seeing his family after a three years' separation. The ship was torpedoed and sunk, and Mr. Browne, in the company of many other passengers, without food or water and tormented by sharks, clung to a small raft until he died of exhaustion after fifty hours in the water. He leaves a wife and one child; Mrs. Browne served in the A.T.S. for two years until she was discharged recently after a serious breakdown in health. One of her brothers, a pilot with the R.A.F., was killed a year ago, and another brother is with the British forces on active service in the Middle East.

ALBERT BURRELL (Member 7616) was born at Windy Nook, Co. Durham, on 3rd May, 1903, and was educated at the school there. From 1917-24 he served first an apprenticeship and then a period as journeyman fitter with Messrs. Clarke, Chapman & Co., Ltd., of Gateshead. Then followed three months' experience each with Messrs. William Doxford & Sons, Ltd., of Sunderland, and Messrs. Richardsons, Westgarth & Co., Ltd. He went to sea in the first place in one of the steamships owned by Messrs. R. S. Dalglish, Ltd., and later joined the Prince Line, Ltd.; he held various appointments in their steamships and motorships, rising to the position of Senior Second Engineer of the m.v. "Malayan Prince". During this period he obtained his First Class Board of Trade Motor Certificate and Steam Endorsement. In the spring of 1937, while serving in the "Malayan Prince", he received an injury to his eye which necessitated his return home, and on recovering from the accident he took a position as turbine attendant with the Clyde Valley Electrical Power Co., Ltd., of Yoker. In May, 1940, he returned to sea with the Prince Line, once again in the "Malayan Prince", and after leave from this ship in December, 1941, he joined the t.s.m.v.

as Chief Engineer. This vessel was sunk by enemy action and Mr. Burrell was appointed Chief Engineer of the m.v. "Westmoor" (owned by Messrs. Walter Runciman & Co., Ltd.) early in 1942. In November, 1942, he transferred to the m.v. and it was while serving in this vessel as Chief Engineer that he was reported missing on 17th May, 1943. Mr. Burrell is survived by his wife, his children having died in infancy.

WILLIAM HENRY CONNOR (Associate 8505) was born at South Shields in August, 1912, and was educated there at the Ocean Road and Marine Schools. He served a marine engineering apprenticeship with Messrs. Brigham & Cowan of South Shields from 1928-33 and immediately afterwards he was accepted for service as a junior engineer officer by The Royal Mail Lines, Ltd., with whom he remained continually in seagoing appointments of progressive rank (obtaining his First Class Motor Certificate in 1939, and Steam Endorsement in 1941) until his death in hospital at Bone, North Africa, on 13th April, 1943, as a result of multiple burns received during enemy action. Mr. Connor is survived by his wife and infant daughter.

EDWARD DAGLISH (Member 8316) was born in April, 1892, in Hull, and educated at the Boulevard Secondary School and the Technical College in that town. He served an engineering apprenticeship with Messrs. Gemmill & Frew of Hull from 1907-13 and then joined The Elder Dempster Lines, Ltd., as a junior seagoing engineer. In 1916 he transferred to the Eastern Telegraph Co., and served until 1918 in a cable ship in the Red Sea. For a year, until June, 1919, he sailed with the Ellerman's Wilson Line, Ltd., and then came ashore to take an appointment as engineer surveyor with the British Engine Boiler and Electrical Insurance Co., Ltd., with whom he worked until 1929. He then returned to sea, and until 1937 served with the Lago Shipping Co., Ltd., of Aruba, chartered from Messrs. Andrew Weir & Co., Ltd. Continuing in



the employment of the Bank Line he sailed on the South Africa to China and Indo-China run until the fall of Singapore. Mr. Daghish then joined the War Transport Service and sailed in convoy to the Middle East, the U.S.A. and elsewhere, and died in May, 1943, when the ship in the Atlantic convoy in which he was serving was torpedoed.

GEORGE JOHNSTON FERGUSON (Associate Member 6792) was born in Nova Scotia in 1893. His parents were West of Scotland people, and he came to Glasgow at an early age and was educated at the High School there. He served with the Canadian Navy during the last war, and obtained a Second Class Certificate. In 1919 Mr. Ferguson became a Director of the firm of Messrs. Ferguson & Timpson, Ltd., and in 1929 Managing Director of Messrs. James A. Silver, Ltd., yacht builders at Roseneath, which positions he held until shortly before his sudden death on 25th November, 1942, at his home in Glasgow. He was a Past Deacon of the Society of Deacons and Free Presses, and an active member of both the Musicians' Club and the Scottish Constitutional Club of Glasgow.

SIR JAMES FORTESCUE FLANNERY, Bart. (Past President, Member 442). See obituary on page 170, Part 9 of Volume LV.

DOUGLAS FRANK FORD (Associate 8948) was born at Orpington in May, 1910, and educated at Southend High School. He served an apprenticeship with the London Graving Dock Co., Ltd., in Poplar, from 1928-33. He then joined the Ellerman Lines, Ltd., as seventh engineer and remained in the Company until 1939, by which time he had been appointed chief engineer. On his marriage in April of that year he left the sea and obtained a position as engineer surveyor with the firm of Insurance Engineers, Ltd. In June, 1940, however, he returned to sea and served first in the destroyer "Maori", then in the cruiser "Norfolk", and finally as Chief Engineer of the "Beverley", which vessel was sunk by enemy action in April, 1943, and Mr. Ford was reported missing, presumed killed. During his war service he was twice mentioned in despatches for distinguished service.

RICHARD FREDERICK FRANCIS, O.B.E. (Member 4524) was born at Folkestone in 1894; he was educated at University School, Folkestone, and Kent College, Canterbury. On leaving school he was apprenticed to Messrs. W. & L. Cole, Ltd., General Engineers of Mile End, London, E. During the first part of the 1914-18 war he was considered to be in a reserved occupation and was engaged in making munitions, until in 1917 he secured his release in order to join the Royal Navy. He was sent to H.M.S. "Titania" as E.R.A. in the submarine service, and remained there until the end of the war. On demobilisation he joined the Blue Star Line and became chief engineer in their service. Mr. Francis was in Australia when war was declared in 1939, and saw unbroken service until 1942: his ship was torpedoed when in convoy to Malta in 1941, and he was awarded the O.B.E. in June, 1942, for his part in taking refugees from Singapore while under heavy bombing from the air. His ship was lost through enemy action in October, 1942, and he was not among the survivors.

ALEXANDER FREW (Member 6164) was born in Barrhead on 27th June, 1888, was educated at the Camphill School, Paisley, and served his apprenticeship there with Messrs. Campbell & Calderwood. When he was 21 he joined the British India S.N. Co., rising to the position of Chief Engineer with the Company, in whose service he remained until the time of his death. Mr. Frew was due to retire at Christmas, 1941, but he was still serving as Chief Engineer of the "Telewa" when, on 24th November, 1942, the ship was torpedoed, and Mr. Frew, with many others, lost his life.

ARTHUR NORMAN GANDY (Associate Member 7803) was born on the 26th September, 1908, at Newcastle-on-Tyne, where he later served his apprenticeship with Messrs. British Engines, Ltd., from 1923-29. His first appointment at sea was in the motor ship "Neptunian" of Newcastle, and he then sailed as second engineer with the Hudson Bay Company in their s.s. "Nascopie". From 1935-38 he had varied and valuable experience in steam and particularly in motor ships, including tankers, after which he joined the Silver Line as senior third engineer. From September, 1938, until 1940, he served as junior second engineer and from 1941 until his death as senior second engineer in the Silver Line motorships. Mr. Gandy was a passenger in the "Western Prince" in 1940 when she was torpedoed; he survived this experience, but was killed at sea as a result of enemy action on the 28th March, 1943.

EDWARD FRANK GAUNTLETT (Member 9519) died on 18th June, 1943. He was born in September, 1891, at Gibraltar, educated in

the Army Schools and Technical School in Chatham, and apprenticed to Messrs. Aveling & Porter at Rochester from 1906-12. In 1914 to 1915 he went to sea as fifth and then as fourth engineer in the Ellerman & Bucknall S.S. Co., Ltd., and from 1915 until 1920 he was in the service of the Admiralty as junior engineer and later as Engineer Sub. Lieut. in the R.N.R. From 1920 to 1922 Mr. Gauntlett was a third engineer in the employ of the Ministry of Shipping, and from 1922 to 1931 he was engaged as third and second engineer with the Ellerman Line again. From 1932 to 1940 he was unable, due to ill-health, to undertake regular work, although at intervals he carried out duties as relieving second engineer. On the outbreak of war he was appointed Assistant Examiner in the Aeronautical Inspection Directorate of the Air Ministry; and from 1941 until his death, after 12 weeks of serious illness, he was engaged as Examiner for the Ministry of Aircraft Production.

JOHN STARK GOLDER (Member 8837) was born at Jarrow on the 23rd June, 1904. He started his apprenticeship at the works of De Ritter and Company, Limehouse, completed it at the Woolwich branch of Messrs. Harland & Wolff, Ltd., and received his technical education at the East Ham Technical College. He joined the P. & O. S.N. Company as junior engineer and served with them until his health broke down in 1938. In December, 1940, he joined the staff of Scottish Command, with headquarters in Edinburgh, as Inspector of Cooking Equipment for the whole command, which comprises all Scotland, including the Orkney and Shetland Islands. Mr. Golder held this appointment until he was obliged in January, 1943, to give up his work, overcome once more by ill-health, and he died on 14th April.

ARTHUR ALLERTON GOUGH (Associate Member 7767) was born in March, 1909; from 1925-30 he served an apprenticeship with Messrs. Edward Wilson & Sons of Bootle, and spent a further year in their service as journeyman fitter. In 1931 he first went to sea as engineer with The Elder Dempster Lines, Ltd., with which Company he served until his death. He sailed in several of the Company's Diesel-engined vessels, and in July, 1938, he joined the m.v. in which he was employed as Junior Second Engineer, when the ship was sunk by enemy action in October, 1942, and Mr. Gough lost his life. Apparently bad weather was experienced after the boats left the sinking ship, and the exact fate of the crew is unknown.

JOHN NORMAN HAMILTON (Associate Member 7108) was born in July, 1906, and educated at Falkirk High School. From 1921 to 1924 he was apprenticed to Messrs. Blackadder Brothers of Falkirk. He went to the Glasgow Technical College where he obtained a diploma in engineering, and then worked in the aero engine department at Parkhead of Messrs. Beardmore & Company's works. While thus employed he worked on the R101 engines at Cardington and also on the Diesel-electric train at Blackpool. In 1930 Mr. Hamilton joined the Lyle Shipping Co., Ltd., as junior seagoing engineer sailing from the Cape of Good Hope, but when his mother died in 1932 he returned to Falkirk and started in business as a motor engineer. When war broke out he went to sea again with the Blue Star Line, leaving his partner to carry on the business which was, however, taken over by the A.R.P. as a fire station almost immediately. He obtained his First Class Steam and Motor Certificates of Competency, and was sailing as Junior Second Engineer in the when the vessel was torpedoed in April, 1943, in the North Atlantic and Mr. Hamilton was reported missing, presumably killed. He was enthusiastically interested in engineering from his earliest boyhood, and was at all times a devoted and unselfish son.

WILLIAM THEODORE HAMLYN, Lieut.-Com'r.(E.), R.N.R. (Member 4151), was born at St. Leonards-on-Sea on 13th May, 1885. He was educated at Bristol Grammar School and Merchant Venturers College. His apprenticeship was served with Messrs. David Rowan & Co., Ltd., at Bristol. He went to sea in the Merchant Service for eleven years, rising to chief engineer, and from 1915-19 he was engaged in the Royal Naval Reserve as Engineer Lieutenant, first in the Dardanelles and later with the Dover Patrol. From 1920-22 he held the position of Surveyor of Ships and Inspector of Machinery in the Straits Settlements, and from 1922-37 he was employed with the Singapore Cold Storage Company. He retired, and returned to England, but on the outbreak of war in 1939 he offered his services to the Royal Naval Reserve and was appointed to the Boom Defence. He spent 18 months at sea, and this was followed by two years as Base Engineer at Lyness and one year as Base Engineer at Plymouth. Commander Hamlyn died suddenly of pneumonia and heart failure in the Royal Naval Hospital at Plymouth on 8th January, 1944, and leaves a widow and two daughters.



JOHN RICHARDSON HANNAM (Associate 7827) was born on 28th February, 1893. In 1911 he started an apprenticeship in the Hallamshire Marine and Motor Works at Sheffield, a business owned by his father, and in 1919 became a director of the company. At the time of his sudden death in November, 1943, Mr. Hannam was a Director of the Manual Training Tool Company of Sheffield.

HARRY J. HARTRIDGE (Member 3606) was born on 20th November, 1873, at Gillingham, Kent. He was educated at Goldsmiths' College, New Cross, and apprenticed to Messrs. Yarrow & Company, in Poplar. On completing his apprenticeship in 1896 he went to sea in the s.s. "Massachusetts", owned by the Atlantic Transport Line. In July, 1907, he joined the American-Hawaiian S.S. Company as Chief Engineer of the s.s. "Isthmian", and in November, 1911, he left the sea to assume the position of Superintendent of Construction for that Company at Sparrows Point, Maryland. He served in this capacity until June, 1914, when he was appointed Assistant Superintendent Engineer of the Company and ultimately, in 1940, he was made Superintendent Engineer. Mr. Hartridge was a member of the Society of Naval Architects and Marine Engineers, and also of several masonic lodges. He is survived by his wife, one daughter and one son, Corporal Stanley Hartridge, who is serving in the United States army.

CHRISTOPHER JOHN HEDLEY (Member 6326) was born in 1898. He served an apprenticeship with Messrs. Brigham & Cowan, Ltd., of South Shields, and served at sea with the Royal Mail Steam Packet Co., and Messrs. Elders & Fyffes, Ltd., obtaining his First Class Certificate of Competency in 1929. In 1936 he joined the staff of The Navigators and Engineer Officers Union, and subsequently became London district secretary of that organisation; later he was given charge of their War Pensions and Indemnity Department, in which capacity, by his sympathetic character, combined with his wide knowledge of the Ministry of Pensions regulations, he rendered invaluable service to thousands of officers and their dependants. In 1942 he was appointed secretary of the Officers' (Merchant Navy) Federation and his death, which occurred suddenly on the 8th November, 1943, is deeply regretted by his colleagues. Mr. Hedley was an Associate Member of the Institution of Naval Architects, and a member of the council of the Navigators and Engineer Officers Union.

THOMAS E. HOLMES (Member 5985) was born on 14th June, 1902. He served an apprenticeship from 1918-22 with The Gas Light and Coke Co., Ltd., and then went to sea in the service of The Anglo-Saxon Petroleum Co., Ltd., by which Company he was still employed at the time of his election to membership of the Institute in 1928. From 1928-30 he was engaged as engineer with The Lightfoot Refrigeration Co., Ltd., and from 1930-40 as Inspector in the India Store Department of the India Office. Mr. Holmes died early in 1943.

GILBERT ALLEN HUDSON (Member 8114) was accidentally killed while on drydock at Massawa, Eritrea, on the 22nd February, 1943, and was buried in Massawa Cemetery. He was born in Chester on 5th September, 1902, was educated at Chester College and the Liverpool Technical School; he served his apprenticeship with Messrs. Lanceley, Ltd., of Chester, and afterwards at the Manchester Drydock Co., Ltd., at Ellesmere Port. In 1924 he joined the British India S.N. Co. and served in many ships. At the commencement of the war he was serving in the m.v. "Durenda", but in 1942 he was loaned by the British India Company to the United States Naval Repair Base, Eritrea Service Command, as Chief Engineer, and later was promoted to the position of Assistant Superintending Engineer of their docks at Massawa, where he met his death.

FREDERICK A. HUNTER (Member 4719) who was born in June, 1888, died suddenly and unexpectedly in London on 13th June, 1943. He was educated at the Haberdasher Company's Askes School, New Cross, London, and at Goldsmiths' Technical College; later he attended evening classes at Vickers' Crayford Works and at Birmingham Technical School while serving his apprenticeship with Vickers, Sons & Maxim, Ltd., from 1905-10. After brief employment with the London General Omnibus Company as repair shop and overhauls foreman of motor buses, Mr. Hunter spent about a year seagoing as junior engineer in cargo steamers on the New York, Cuba and Mexico service. This was followed by three years in Havana, first as draughtsman with the Havana Electric Railway Light & Power Co., and then as engineer-in-charge of the Central Power Station. In 1914, while representing in London several American railroad and sugar mill equipment manufacturers, he interrupted the expansion of this business to join the R.N.V.R., in which he served with the Dover patrol, at Mudros, and in the

Smyrna patrol. In 1917 he was promoted to the rank of Sub-Lieutenant in the R.N.R. and appointed engineer-in-charge of machinery afloat and ashore at the coastal motor boat base at Haslar. After having served as senior engineer in auxiliary vessels operating for the Dyina River Relief Force, North Russia, he returned to England in 1919 as Engineer Lieutenant. In 1920 Mr. Hunter left the Navy (having twice been mentioned in despatches for carrying out engineering work under difficulties), and joined the firm of James Pollock, Sons & Co., Ltd., being employed in turn in the engineering, estimating and commercial departments. In 1928 he was given charge of all engineering work in the shipyard and of the vessels building, and he held this position until he resigned in 1931 to take employment with Petters, Ltd. In May, 1938, Mr. Hunter joined Messrs. W. H. Allen, Sons & Co., Ltd., and from that time until his death was primarily associated with the development and work in connection with the Company's marine oil engine propulsion business.

WILLIAM EDWIN HUNTER (Member 8822), was born on 11th May, 1884. He was educated at the Thorne Grammar School, and afterwards at Hull Technical College, and his apprenticeship was served with Messrs. MacColl & Pollock, Ltd., of Sunderland from 1900-1905. From 1905-1907 he sailed as junior engineer in ships of several companies trading to the River Plate, and afterwards served in vessels belonging to the Goole & West Riding S.S. Co. Ltd., and was interned in Germany from 1914-18. On his return to this country he rejoined the Goole & West Riding S.S. Co., and later was appointed superintendent engineer. In 1923 he became a Director with Messrs. A. E. Smith (of Goole), Ltd., consulting engineers and marine superintendents, with whom he was still connected at the time of his sudden death early in 1944. Mr. Hunter was an Associate Member of the Institution of Naval Architects, and a Fellow of the Society of Consulting Marine Engineers and Ship Surveyors. He was a Past Master of the Aire and Calder Lodge of Freemasons, and founder of the Brough Lodge.

THOMAS JEFFERSON (Member 7480) was born at Gateshead on 4th January, 1896; he was educated at Sunderland Road School and served an apprenticeship to engineering with Messrs. Clarke, Chapman & Co., Ltd., of Gateshead from 1911-17. He served throughout the whole of the last war with the Army Service Corps on the Engineering Repair Staff, and was in France from 1915-19; he held the rank of Staff Sergeant. On his return to England he worked again for Messrs. Clarke, Chapman & Co., Ltd., until November, 1924, when he went to sea in ships owned by Messrs. R. S. Dalglish, Ltd., of Newcastle-on-Tyne, in whose employment he remained for three years. He then transferred his services to The Prince Line for eighteen months, returning to Messrs. R. S. Dalglish, Ltd., in 1929. In January, 1934, Mr. Jefferson was engaged as a seagoing engineer by Messrs. John I. Jacobs & Co., Ltd., of London, and was sailing in one of their ships when it was sunk by enemy action in March, 1943, and he was presumed to have been drowned.

HARRY FERROR MERRYCHURCH JENKYN (Associate 8982) was born on 14th August, 1909. His apprenticeship to engineering was served with the Mort's Dock and Engineering Company of Sydney from 1924-29. From 1929-32 he went to sea in the service of The New Zealand Shipping Company, in 1932 he was employed by The Adelaide Steamship Company, and from 1933-39 he went to sea in ships owned by Messrs. Howard Smith Proprietary, Ltd. In 1939 Mr. Jenkyn was appointed Engineering Consultant to The British Institute of Engineering Technology (Australasia) Pty., Ltd. Since the outbreak of war he had been serving with the Royal Australian Navy, and as Eng.-Lieut. of the H.M.A.S. "Armada" he was killed in action against the Japanese on 2nd December, 1942.

NOEL PATRICK JENNINGS (Member 6776) is presumed drowned as a result of enemy action on 7th March, 1943. He was born at Jarrow-on-Tyne on 10th December, 1901, where his father was a well-known doctor. He served an apprenticeship there with the Palmer Shipbuilding and Engineering Company, and remained with the Company for several years after completing his apprenticeship. Mr. Jennings first went to sea as a junior engineer in the King Line in 1928, and in 1930 he joined the Athel Line, Ltd.; whilst in their employ he obtained his First Class Board of Trade Motor Certificate and reached the position of senior second engineer. While sailing in the Russian convoy of September, 1942, he helped to rescue men trapped in the flooded engine room of his torpedoed ship, and for this courageous act he was mentioned in despatches. After recovering from an illness of several months which resulted from this experience, he returned to sea, and only two weeks later



he met his death. Mr. Jennings is survived by his wife and his mother.

JOHN MAURICE JOHNSON (Member 8682) was born on 6th August, 1902. From 1918-23 he served an engineering apprenticeship with Messrs. Cran & Somerville, of Leith, and from 1924-34 he was engaged as a seagoing engineer with Messrs. Elders & Fyffes, Ltd., The City Line, and The Elder Dempster Lines, Ltd., and obtained his First Class Board of Trade Certificate. In 1936 Mr. Johnson was appointed Technical Assistant in the Chief Engineer's Department, Public Institutions Division of the London County Council. He died on 27th August, 1943.

JOHN E. LEDINGHAM (Member 5702) was born in Newfoundland in 1880, his father having owned an engineering business at St. John's. His apprenticeship was served with Messrs. Muir & Houston in Glasgow from 1897-1902. From 1912 until 1931 he went to sea in the service of the Hudson Bay Company. Thereafter he was employed as Chief Engineer with Messrs. H. Hogarth & Sons of Glasgow, with the exception of 14 months (September, 1939, to December, 1940), when he sailed as Chief Engineer of Messrs. Furness, Withy & Company's s.s. \_\_\_\_\_ until the ship was lost. Mr. Ledingham died as the result of enemy action when the vessel in which he was serving was sunk on 3rd January, 1943. He leaves a widow and two daughters.

JOHN LINDSAY (Member 3186) was born on the 3rd August, 1873, in Glasgow. He was educated in France as his father was a weaver employed in Rouen. Mr. Lindsay was apprenticed to the firm of Messrs. Duncan Stewart & Company of Glasgow. He was employed as a seagoing engineer for ten years, for some time as Chief Engineer of the s.s. "Gleneagle", sailing between Singapore and Rangoon, under the ownership of Chin Tsong & Company. In 1905 he took a shore appointment as Assistant Engineer to the Rangoon Electric Supply & Tramway Co., Ltd., leaving this position to join the Burmah River Transport Company, Rangoon, as Superintendent Engineer. Mr. Lindsay served with this firm until it was taken over by the Irrawaddy Flotilla Co., Ltd., when he joined the Burmah Government Dockyard as Resident Engineer. He later became Superintendent Engineer of the Dockyard, which position he held until he retired in 1927. Mr. Lindsay died in Glasgow in December, 1942.

ROBERT LEITCH LOGAN (Member 2768) died at a nursing home near his own home in Southbourne, Hants., on 4th January, 1944. He was the son of Alexander John Logan, engine fitter, and a Burgess of Dunfermline, Fife, and he was born in Culross on the border of Fife and Perthshire on 30th March, 1870. His apprenticeship was served with Messrs. G. & A. Harvey, Albion Works, Govan, and prior to commencing his seagoing career he worked for two years as an engine fitter with The Fairfield Shipbuilding & Engineering Co., Govan. His connection with Fife was maintained by his marriage to Annie Chalmers Young of Crossford and Limekilns, Fife, the daughter of Robert Young, Master Mariner. In 1894 he joined the Donaldson steamer "Amarynthia" and, gaining his Certificates of Competency, served in this vessel as 4th, 3rd and 2nd engineer. In 1899 he was appointed Chief Engineer of the s.s. "Marina", which was one of the first ships using CO<sub>2</sub> refrigeration for the carriage of chilled meat and frozen salmon. In 1903 he transferred to the Federal Line as Chief Refrigerating Engineer of the t.s.s. "Somerset"; six months later he became Chief Engineer of this ship, in which he remained until August, 1911, carrying chilled beef from the River Plate, frozen mutton from Australia and New Zealand, and fruit from Tasmania. The practice adopted by Mr. Logan in this ship became one of the standard conditions of shipments at that time. Subsequently, as Chief Engineer, he took the t.s.s. "Shropshire", later renamed the "Rotorua", on her maiden voyage from Messrs. John Brown & Co., Ltd., of Clydebank. In 1913 he took a shore appointment with Messrs. Green & Silley Weir, Ltd., London, and at this period keenly interested himself in the activities of the Institute of Marine Engineers, then occupying the Stratford premises. In 1917 he became Superintendent Engineer of Messrs. Mitchell Cotts & Co., of London, with which firm he remained until his retirement from active duties in 1933. During those years he was a familiar figure in the repair and shipbuilding yards of this country and abroad, being well known in Cardiff, Tyneside, the ports of South Africa, Karachi and Hong Kong. Among the many vigorous enterprises of conversion and salvage which Mr. Logan successfully undertook when in the employment of Messrs. Cotts & Co., was the refloating of a vessel aground and badly holed off the South African coast. By pumping compressed

air into locally made canvas bags, which were attached to the hull, the necessary buoyancy was obtained. Mr. Logan was respected for his sound judgment and his absolute integrity by all with whom he came into contact in London shipping circles as well as by fellow members of his profession. He was a kindly and generous friend; he did not spare himself in his devotion to the job in hand, and he was proud to feel that his life had been devoted to useful and constructive ends. He is survived by his two sons, Alexander Logan, a Superintendent Engineer of the Anglo-Saxon Petroleum Co., Ltd., and R. Y. Logan, M.A., who is Director of Education for Worcestershire.

PETER MARTIN (Member 5434) was born at Gatehouse-of-Fleet, Kirkcudbrightshire, and came to Glasgow with his parents when he was seven years old. He served an apprenticeship with The Mirreles Watson Co., Ltd., of Glasgow, and Messrs. Scott's Shipbuilding & Engineering Co., Ltd., of Greenock. As a young man he served in India with the British India S.N. Co., and also with the Allan Line to America. Later he was chief engineer for some years with Messrs. James Gardiner & Co., of Glasgow. In 1906 he joined The Lyle Shipping Co., as Chief Engineer of the s.s. "Cape Corso", in which vessel he served for eleven years until in 1917 he became Marine Superintendent to the Company. Mr. Martin held this appointment until his death on 9th June, 1943, when he was 76 years of age. He is survived by a daughter and two sons, one a Lieutenant in the R.N.R., and the other a chief engineer at present serving in a hospital ship.

JOHN MCCOMBIE (Member 4155) Resident Engineer Superintendent for the North-East Coast to the British Tanker Co., Ltd., since 1918, whose sudden death occurred at his home at Whitley Bay on the 26th April, 1943, was one of the most prominent and popular members of the North-East Coast shipping circles. He had been ill for three weeks. Mr. McCombie was born at Inverness in 1880; he started his apprenticeship with the Highland Railway and completed this training with Messrs. John Dickinson & Sons, Ltd., of Sunderland. His sea service was gained with Messrs. Stephens, Sutton & Stephens, Ltd., of Newcastle, and he sailed for ten years as chief engineer. He was a keen sportsman and a strong swimmer; he held two certificates for lifesaving, one having been awarded by the Norwegian Government in recognition of his conduct when he was one of a party which went in a lifeboat to the assistance of a ship in distress. He was also awarded Lloyd's Bronze Medal for gallantry on another occasion. Mr. McCombie was a Member of the Marine Engineers' Association and of the North-East Coast Institution of Engineers and Shipbuilders. He leaves a widow and one son who is serving with the Royal Air Force, and he is greatly missed by his many friends and by his colleagues on the staff of the British Tanker Company.

JOSEPH MCCUBBING (Member 5808) was born in Sunderland on 21st May, 1894. He was educated there at Hendon School and served an apprenticeship with Messrs. George Clark, Ltd., of Sunderland from 1910-14. During the last war he served with the R.G.A. from 1915-18, and afterwards sailed for a number of years with the Anglo-Saxon Petroleum Co., Ltd. Later, he joined the Silver Line and sailed for them as chief engineer until, in February, 1944, his ship was torpedoed, Mr. McCubbing was wounded and died in the lifeboat. During his war service with the Silver Line he was commended for bravery at sea.

CHARLES WHITE METCALF (Member 1390) was born in Sunderland in 1871; he was the younger son of Thomas Metcalf, builder of wooden ships in that town, and throughout his life he was associated with shipbuilding and engineering activities in Sunderland. He was educated at Peter Wood's School, and served his apprenticeship with Messrs. John Dickinson & Sons, Ltd., of Sunderland. He went to sea as an engineer until he obtained his First Class Board of Trade Certificate, and then started in business as a consulting engineer in Sunderland, being connected with many well-known shipping firms for whom he acted as marine superintendent. Mr. Metcalf died at his home at Roker on 19th April, 1943, after suffering patiently a long and painful illness; he leaves a widow and two daughters. With his death the Institute loses one of its oldest members, Mr. Metcalf having been elected in 1899.

JAMES MICHIE (Member 1270) who was elected to membership of the Institute in 1898, was a native of Banff, and was educated at the Grammar School in that town, and at Robert Gordon's College, Aberdeen; his apprenticeship was served with Messrs. Blaikie Bros., Aberdeen. In the year 1889 Mr. Michie went to South Africa and for a time was employed in the Natal Government Railway workshops at Durban. In August, 1890, he entered the service of



Messrs. J. T. Rennie & Co., as Third Engineer of their s.s. "Matabele", this vessel being engaged in passenger and cargo trade between London and Natal, and after passing through various stages of promotion was appointed Chief Engineer of the s.s. "Ifalfa" in 1897. From this time until 1911 Mr. Michie served in turn as chief engineer of five of Messrs. Rennie & Co.'s steamers and when the fleet was sold to Messrs. T. & J. Harrison of Liverpool he continued to serve with the new owners, until his retirement in 1936, becoming Chief Engineer of their new passenger and cargo steamer "Ingoma" in the South African trade in the year 1913. During the last war the "Ingoma" was fitted out as a naval transport, and Mr. Michie made many voyages in the conveyance of troops between England and South Africa, Mediterranean Ports, France, India, Egypt, East Africa and Mesopotamia; one exciting incident occurred in 1916 when the "Ingoma", with over a thousand troops on board, was involved in a running fight of three hours and a half with a hostile submarine, from which she ultimately escaped. Mr. Michie was responsible for the scuttling of the transport "Wissmann", in Kilindini Harbour, East Africa, when the vessel became a danger through her cargo of petrol catching fire; he also planned the reconstruction of the German gunboat "Kaiser Wilhelm II", which was refloated after being sunk. For his services to the country during the 1914-18 war the honour of Commander of the British Empire was conferred to Mr. Michie. He died on 14th October, 1943, at his home in Essex.

JAMES WILLIAM MOTHERSDALE (Member 5855) was born at Tyne-mouth in 1881 and educated at Manson's High School, North Shields. He was apprenticed with Messrs. Blair & Company of Stockton-on-Tees before sailing as fourth, third, second, and finally chief engineer of the s.s. "Atlas", owned by Messrs. Rickenson, Sons & Hyde, Ltd., of Hartlepool, with short periods of service in smaller ships. As the result of ill-health he was then obliged to leave the sea and was employed for four years ashore with Messrs. W. G. Armstrong, Whitworth & Co., Ltd., and for three years as partner in an engineering works. However, in 1922 Mr. Mothersdale was able to return to a seagoing life, and he joined the s.s. "Dalemoor", owned by Messrs. Walter Runciman & Co., Ltd., as Second Engineer, was promoted to the position of Chief Engineer in the same ship in 1926, and sailed in her for eighteen years altogether. Mr. Mothersdale died suddenly on 6th June, 1943, through heart failure, and is survived by his wife and one daughter.

NEWMAN MUMFORD (Member 2293) was born on the 18th August, 1861, in the Isles of Scilly. He was apprenticed at the Wallsend Slipway & Engineering Co., Ltd., Newcastle, from 1877 to 1882, and thereafter served for one year in the drawing office of that firm. He spent about seven years at sea and obtained his First Class Board of Trade Certificate in February, 1887. In 1890 Mr. Mumford was appointed acting Government Engineer Surveyor at Penang, and held this appointment until the return of the Government Surveyor from leave in 1891. He served as the Lloyd's Register of Shipping Non-Exclusive Surveyor at Singapore from 1893 to 1896, at which date he was appointed Exclusive Ship and Engineer Surveyor to the Society at Hong Kong, remaining in that appointment until he was transferred in 1905 to Constantinople. During the last war he served at Piræus, and in 1919 returned to Constantinople as the Society's Principal Surveyor for the Eastern Mediterranean; he remained there until his retirement in June, 1921. For the last 22 years of his life Mr. Mumford made his home in Victoria, B.C., where he is survived by one son, Mrs. Mumford having predeceased him by about two months. He was elected a Member of the Institute in 1909, and will doubtless be remembered by friends in many parts of the world for his vivid personality and vigorous interest in life.

GORDON STANLEY NICHOLSON (Associate 8813) was born in January, 1913. He was educated at Handsworth Grammar School and Handsworth Technical College, Birmingham, and then indentured to Messrs. Belliss & Morcom, Ltd., from 1928-34. From 1934-39 he served as a seagoing engineer with Messrs. Alfred Holt & Co., and obtained his First Class Steam and Motor Certificates of Competency. At the outbreak of war he was engaged ashore as Technical Assistant with the Asiatic Petroleum Co., but was then called up to the Royal Naval Reserve and served as Lieutenant(E.) in H.M.S. "Capetown" in the Mediterranean. He was then transferred to the submarine parent ship H.M.S. "Medway", and became Senior Officer in charge of the repair shop. At the time of the first battle of Libya he was, for a time, naval officer of the port of Sollum, and was recalled home for training for the submarine service. Later he was posted to H.M.S. "Tigris". Lieut. Nicholson was one of three engineer officers of the Royal

Naval Reserve in the submarine service. In April, 1943, he was reported missing, and in November his presumed death was officially confirmed. Lieut. Nicholson's younger brother, a pilot officer in the R.A.F., had been killed on active service in November, 1941.

FREDERICK T. NORRIS, Eng. Lieut., R.N., ret. (Member 4479), died on 1st June, 1943, deeply regretted by a large circle of friends, especially in Portsmouth where, through his long and valuable association with "The Royal Naval Engineering Review", of which he was Editor for many years, he was one of the pioneers of lower deck promotion to commissioned rank in the Royal Navy. He served a seven years' apprenticeship, starting in 1882, in the Engineering Department of Portsmouth Dockyard. In 1889 he joined the Navy as an engine room artificer, and from that time until 1922 when he retired with the rank of Engineer Lieutenant he served in battleships and cruisers, and in charge of destroyers. For several years from 1897 Mr. Norris was engaged in the Royal Yacht "Victoria and Albert", and in 1911 he was appointed to the Royal Yacht "Alexandra" as Senior Engineer; while serving in this latter coveted appointment he was highly recommended for special promotion. After his retirement from the Navy, Mr. Norris devoted his energies to the public and religious life of Portsmouth and district; he had a long and active connection with the Lake Road Baptist Church, he was chairman of the Horndean Parish Council, and a school manager at Waterlooville. From 1930 he was General Secretary of the Royal Naval Engineers Benevolent Society, in which work he had already for many years shown a devoted and unflinching interest.

BERVILL ERNEST PAIN (Associate 8773) was born at Rawal Pindi, in India, in January, 1912. He was educated at the Phillander Smith College, Naini Tel, and served an engineering apprenticeship from 1930-35 with the Commissioners of the Port of Rangoon, attending the Government Technical Institute there during the same period. In September, 1936, he was appointed by Messrs. Andrew Weir & Co., Ltd., as junior engineer in the m.v. and served in that Company, obtaining his First Class Motor Certificate, until his presumed death in September, 1943, when his ship was sunk by enemy action and he was not accounted for amongst the few survivors.

ALBERT HENRY PAYNE (Member 8789) was born in December, 1887. He served a six years' apprenticeship with the Cardiff Channel Dry Dock Co. He went to sea as a junior engineer and except for an interval of three years, from 1911-14, when he was manager and engineer to tea estates in Assam, the remainder of Mr. Payne's professional life was spent at sea. He served for many years as a chief engineer, and died at sea as the result of enemy action early in 1943.

JOHN MOFFETT PETERSON (Companion 4558) was elected to membership of the Institute in March, 1922. At that time he was Managing Director of Messrs. Peterson, Booth & Co., Ltd., consulting engineers and naval architects on the North-East Coast. He was a Director of the Beldam Asbestos Co., Ltd., of Hounslow, and was in charge of their Newcastle branch for about 25 years. Mr. Peterson died on 26th June, 1943.

REGINALD HENRY PINN (Member 2586) was born in 1883, and educated at Hele School, Exeter. He served his apprenticeship with Messrs. H. B. Green & Co. and Messrs. Taylor & Bodley & Co. of Exeter. From 1906 until his death Mr. Pinn was engaged with the firm of Messrs. Clarke, Chapman & Co., Ltd., first as an improver, later—for four years—in the drawing office, and finally as one of the representatives of the firm in the London office. He died on 4th November, 1943, and many members of the Institute who were among his friends will miss his genial company.

LEONARD JAMES PIPER (Member 7345), born on 6th April, 1896, at Greenwich, was educated at Colfe's Grammar School, Lewisham, and then apprenticed to shipbuilding and engineering. In September, 1914, he volunteered for service in the army and joined the 1st 20th London Regiment as a private; he was commissioned in September, 1915, in the 4th Battalion of the Loyal North Lancashire Regiment. He was wounded on service and after the war was demobilized and resumed his interrupted career. He was appointed marine surveyor to The Thames Steam Tug and Lighterage Company, Ltd., The Associated Portland Cement Manufacturers, Ltd., and many other London firms. In the present war Mr. Piper was an officer in the Home Guard from the time of its inauguration. He died at his home at Ightham in Kent on 30th January, 1943.



NORMAN MACFARLANE ROBERTSON (Member 7481) was born at Aberdeen in 1890, and served his apprenticeship from 1908 to 1914 with Messrs. John Lewis & Sons, Aberdeen. In 1914 he was mobilised with a territorial unit, but after serving for some time was released in order that he might return to engineering. In the summer of 1918 he joined the Clan Line as fifth engineer, and continued in their service until he became Chief Engineer of the

Early in 1943 Mr. Robertson was drowned when his ship was sunk by enemy action. He leaves a widow and a young daughter, still at school.

HERBERT MALCOLM ROGERS (Member 2219) was born on 15th April, 1858, and received his general education at the City of London School and, for a period, in France. His apprenticeship to engineering was served at the Blackwall Ironworks of Messrs. John Stewart & Sons. Subsequently he obtained further experience in Sunderland with the North Eastern Marine Engineering Company and with Messrs. George Clark & Company before going to sea in the ships of Messrs. Wilson Brothers and The Shire Line. Having obtained the Board of Trade Extra First-Class Certificate of Competency, he was appointed to a surveyorship in 1888 by Lloyd's Register of Shipping, remaining with that Society until 1892, when he set up in practice as a consultant. In this capacity he acted as superintendent engineer to Messrs. Harris & Dixon, as consulting marine engineer to the Corporation of Trinity House, and to a number of tramp shipping companies, British and foreign. Mr. Rogers was a member of long standing of The Institution of Civil Engineers, The Institution of Mechanical Engineers, and The Institution of Naval Architects, and was one of the founder members and a Fellow of the Society of Consulting Marine Engineers and Ship Surveyors.

WILFRED ROURKE (Member 7349) was born at Birmingham in 1905. He was educated there at St. Francis Xavier's College, and served his apprenticeship with the Victory-Kidder Machine Company and Messrs. Cammell Laird & Co., Ltd., in Birkenhead. From 1926 to 1930 he was employed as an engineer at sea with the United Molasses Company and the Athel Line; in 1930 he joined the Silver Line, in whose employ he remained (as chief engineer from April, 1935) until his death at sea in March, 1943, when the ship in which he was sailing was lost by enemy action. Mr. Rourke married in January, 1942, and is survived by his wife and a baby daughter, whom he saw on one occasion only, when she was three months old. His death is much regretted by the owners of the Silver Line ships, who have thus lost the services of one of their most valued engineers.

ALFRED DOUGLAS SMITH (Associate Member 7973) was born in August, 1900. He served his apprenticeship from 1917 to 1923 with the North Eastern Marine Engineering Co., Ltd., in Sunderland, and gained a B.Sc. degree at London University. From 1923 to 1925 he was employed as a draughtsman with Palmers Shipbuilding & Iron Company, Jarrow-on-Tyne. In 1925 he was appointed assistant lecturer in the engineering department of Darlington Technical College, and remained there until 1930 when he undertook the positions of assistant lecturer at the day continuation school for apprentices at the London Passenger Board Repair Depot, and assistant lecturer at the L.C.C. School of Engineering and Navigation in Poplar. In September, 1939, Mr. Smith went into evacuation to Bridgwater in Somerset with the Poplar School, where he gave valuable service both in the school and in the town. He was the founder and scoutmaster of the scout troop associated with the school, and he was a talented amateur actor and appeared in all the school productions. He was warmly admired by his pupils and colleagues, who valued him for his friendliness, loyalty and keen sense of duty. Mr. Smith was a corporate member of the Institution of Mechanical Engineers. He leaves a widow and two young daughters.

CHARLES AUGUSTUS SUFFIELD (Member 8804) died after a short illness on 4th June, 1943, aged 73. He was born in Birmingham and educated there at King Edward's School; from 1887 to 1891 he served an engineering apprenticeship with Messrs. John Laird of Birkenhead. He went to sea for several years and was also engaged for a time as a roughrider in the 11th Hussars ("The Cherry Pickers"). It was, however, as the result of his engineering experience and qualifications that he was appointed assistant mechanical engineer on the construction of the Birmingham Water Works reservoirs at Rhydar in Wales. Later he was employed at Hadfield's Steel Foundry, Sheffield, leaving there in 1907 to join the United States Metallic Packing Company of Bradford as their London representative and manager, an appointment he held until

his death. Mr. Suffield was a founder of the Institute of Locomotive Engineers, a Freeman of the City of London and a past Master of the Guild. He was a founder of the Fulcome Lodge of Freemasons and a member of the London and Warwickshire Lodge. He was also a member of the Little Ship Club, which was responsible for organising the service of boats bringing the British Expeditionary Force back from Dunkirk. Among his hobbies was wood carving and he made many gifts of his handiwork, including an offertory box to Pepys's Church, St. Olave's, London Street in the City, which was destroyed during the "blitz" in 1940.

JOSEPH FENWICK TAYLOR (Member 2923) died suddenly at the Port of Lyttelton, New Zealand, on 30th January, 1943. He was a son of J. F. Taylor, master mariner of South Shields, and was educated, and served his apprenticeship in that town, the latter with Messrs. J. P. Rennoldson & Son. In 1900 he went to sea and by 1906 he had been appointed chief engineer, but in 1910 he came ashore to take an appointment in the Steamers Department of the Sudan Government. He remained in their service until 1916, when he joined the Royal Engineers and served in Egypt and Palestine, returning to civilian life in 1920 with the honorary rank of captain. In 1920 Mr. Taylor was appointed Manager of the Engineering Department of the Mesopotamia Persia Corporation in Basrah, but as the climate had a bad effect on his health he resigned this position in 1923. He went to New Zealand in 1924 and was appointed Surveyor to Lloyd's Register of Shipping, a position he held until his death; he was also Surveyor to the American Bureau of Shipping and the British Corporation of Shipping at the Port of Lyttelton, New Zealand. Mr. Taylor's quiet and kindly manner endeared him to his friends and colleagues. He is survived by his wife and daughter.

STANLEY TAYLOR (Member 8953) was born in November, 1902, at Stratford. He was educated at the West Ham Technical School and commenced his apprenticeship in 1916 with Messrs. E. J. Davis & Co. of Stratford. He continued in their service as journeyman on completion of his apprenticeship, and remained with the firm until 1925. He then went to sea and served with various passenger lines until 1932, when he joined the Vacuum Oil Company as fourth engineer; in 1938 the Company appointed him Chief Engineer of the s.s. "Lachlan". At the outbreak of war he was serving in the Pacific, but came to this country for leave in 1940 and thereafter served in ships in the Atlantic. In April, 1943, when for the first time since 1932 he was not sailing in a tanker, the ship was torpedoed and Mr. Taylor was killed.

T. H. THATCHER (Companion 2553), who was born in 1885, was a native of New Zealand. As a young man he came to England with his father, the founder of The Atlas Preservative Company, Ltd., and joined the Company in 1905. He was appointed Director in 1910 and Managing Director in 1911, being largely responsible for building up the business of the Company. He had been a Companion of the Institute since 1911, and was well known in shipping circles. Mr. Thatcher was a man of wide interests and for some years was a member of the Overseas Committee of the Federation of British Industries, and he was a founder member of the Institute of Export.

JOHN THOMAS (Member 8530), was born in Sunderland on 24th February, 1883. He was educated at Cameron's School and the Hudson Road School Technical Evening Classes in Sunderland, and served his apprenticeship there with Messrs. MacColl & Pollock from 1898-1904. From 1904-9 he served at sea in ships of various companies, obtained his First Class Board of Trade Certificate and entered the drawing office of the North Eastern Marine Engineering Co., Ltd., at Sunderland in 1908. In 1913 he was appointed Leading Draughtsman with Messrs. Workman, Clark & Co., of Belfast, and during the two following winters he taught marine engineering subjects at evening classes in the Belfast Municipal College of Technology. In 1916 Mr. Thomas was appointed Assistant Engineering Outside Manager to the Company, and in 1919 he was Manager of their Abercorn Works. In 1935 he obtained the position of Engineering Repairs Manager with Messrs. Harland & Wolff, Ltd., and in 1937 returned to Sunderland as General Manager of Messrs. John Lynn & Co., Ltd. He died on 3rd January, 1944, as the result of a severe attack of angina pectoris, a disease from which he had suffered for the past six years. Mr. Thomas had been a Member of the Belfast Association of Engineers since 1922, and a Member of the North-East Coast Institution of Engineers and Shipbuilders from 1938.

CHARLES THOMSON (Associate 9019) was born in Glasgow in 1913 and educated at Bernard Street Secondary School. From 1929 to



1934 he served an apprenticeship with Messrs. Harland & Wolff, Ltd., in Glasgow, and thereafter sailed with the Anglo Saxon Petroleum Co., Ltd. He obtained his First Class Motor Certificate of Competency, and was engaged as second engineer in the same Company when the motorship in which he was serving in December, 1942, was torpedoed and sunk, and Mr. Thomson was reported missing, and later presumed lost.

GEORGE RICHARD WENSLEY (Member 8298), was born near Cardiff on 12th August, 1902. He was educated at Romilly Boys' School and Barry County School, and served an apprenticeship with Messrs. C. H. Bailey & Co., of Barry Dock, from 1917-23. He joined the Royal Naval Reserve as an Engine Room Artificer in 1924 and was serving in H.M.S. "Repulse" when H.R.H. The Prince of Wales visited South Africa and South America. For a short period during 1925-6 he was engaged as Third Engineer of the s.s. "Clythia" owned by Messrs. E. Jones & Co., of Newport, and in 1927 joined the China Navigation Company; in 1936 he was appointed chief engineer. Most of Mr. Wensley's seagoing life was spent in the China Seas, although for a year he was stationed in Chungking, and from 1941 he spent two years on the Indian Coast and in the Persian Gulf. In July, 1943, the ship in which he was sailing was torpedoed, sinking within two minutes, and Mr. Wensley lost his life.

GEORGE MCK. WILSON (Member 5193) was born in Sunderland

in 1898, and educated there at Redby School and the Technical College. He served an apprenticeship with Messrs. Maccoll & Pollock, Ltd., of Sunderland. During the last war he served in France with the Royal Marine Artillery during 1918-19. In 1920 he joined the British India Steam Navigation Company, Ltd., and served with them throughout the whole of his seagoing career, which was abruptly terminated by enemy action at sea early in 1943 when he was returning to this country on leave after having been engaged as Chief Engineer of a hospital ship lent to the South African Government. Mr. Wilson's death has been greatly regretted by the Company to whom he gave such long and excellent service.

JOSEPH STEPHEN HARRY YOULDON (Member 8709) was born on 6th November, 1903. He was educated at Brighton, and from 1918-22 he was appointed there to Messrs. Allen West & Co., Electrical Engineers, attending evening classes at the Technical College during this period. From 1923-25 he continued his apprenticeship with Messrs. David Rollo & Sons, of Liverpool. In May, 1925, Mr. Youldon was appointed Fifth Engineer in the Anglo Saxon Petroleum Co., and he remained in the service of this Company until his death. He obtained his First Class Certificate of Competency with Motor Endorsement, and was appointed Acting Chief Engineer in 1940 and Permanent Chief Engineer in July, 1943. Early in December, 1943, he was killed by enemy action in the Mediterranean while serving as Chief Engineer of a tanker. Mr. Youldon leaves a wife and two very young children.



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, 1943, and we set out below our observations.

(1) The Revenue Account shows a surplus of £1,376 17s. 1d., compared with £589 10s. last year, an increase of £787 7s. 1d.  
(2) The Gross Revenue was £10,432 0s. 7d., an increase of £1,397 3s. 5d. made up as follows:—

	Decrease.	Increase.
	£ s. d.	£ s. d.
Subscriptions .. .. .	—	901 5 1
Entrance Fees .. .. .	—	176 15 0
Examination Fees .. .. .	—	9 0 0
Advertisements .. .. .	—	219 17 10
Rent Receivable .. .. .	—	15 12 3
Interest .. .. .	—	61 13 8
Contributions towards Expenses for use of Hall and Library .. .. .	15 0	—
Sundry Sales .. .. .	—	13 14 7
<b>Deduct Decrease .. .. .</b>	<b>15 0</b>	<b>1,397 18 5</b>
<b>Increase as above .. .. .</b>	<b>—</b>	<b>15 0</b>
		<b>£1,397 3 5</b>

(3) Expenditure charged to Revenue Account amounted to £9,055 3s. 6d., an increase of £609 16s. 4d., made up as follows:—

	Decrease.	Increase.
	£ s. d.	£ s. d.
General Expenses .. .. .	—	610 4 0
Rent, Rates, etc. .. .. .	218 10 10	—
House Account .. .. .	—	3 4 11
Repairs .. .. .	—	126 17 3
Air Raid Precautions .. .. .	8 9 3	—
Insurance .. .. .	9 11 2	—
Transactions (Bound Volumes) .. .. .	31 17 3	73 19 6
Library and Reading Room Account .. .. .	—	57 6 7
Depreciation .. .. .	62 6 6	—
Parsons Memorial Lecture .. .. .	28 3 10	—
Heat Engines Prizes .. .. .	—	1 6 11
Silver Medal (Joint Award) .. .. .	4 4 0	—
Transfer to Pension Fund .. .. .	—	100 0 0
<b>Deduct Decreases .. .. .</b>	<b>£363 2 10</b>	<b>972 19 2</b>
<b>Increase as above .. .. .</b>	<b>—</b>	<b>363 2 10</b>
		<b>£609 16 4</b>

A further £1,000 has been transferred to the Reserve Fund for Repair and Renewal of Premises.

(4) The increase of Income of £1,397 3s. 5d., less the increase in Expenditure of £609 16s. 4d., accounts for the increase in Surplus Revenue.

(5) "The Running and Maintenance of Marine Machinery" Account.  
In accordance with the Council Minute of 3rd July, 1933, £171 17s. 10d. has been paid to the Guild of Benevolence. Further Sales, less Expenses during the year amount to £53 16s. 4d.

(6) "Electricity Applied to Marine Engineering".  
Sales, less Expenses, during the year amount to £51 19s. 11d. In accordance with the Council Minute of 30th March, 1942, £91 0s. 7d. has been transferred to the Guild of Benevolence.

(7) "Naval Architecture and Ship Construction".  
The profit of Sales during the year amounts to £103 0s. 3d.

(8) Investments.  
The Market Value at 31st December, 1943, of the Institute's free Investments standing in the books at £20,343 7s. 2d. was £20,469. During the year £1,000 3% Defence Bonds and £1,000 3% Savings Bonds "B" 1960-70 were purchased at par.

(9) We have verified the Investments and Bank Balances and have inspected the Insurance Policies and Title Deeds, 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 & Drake, Chartered Accountants.

**SOCIAL EVENTS ACCOUNT.**

Dr.	£	s.	d.	Cr.			
To Payments .. .. .	288	15	11	By Balance at 31st December, 1942 .. .. .	61	16	1
" Balance at 31st December, 1943 .. .. .	106	0	11	" Receipts .. .. .	333	0	9
	<b>£394</b>	<b>16</b>	<b>10</b>		<b>£394</b>	<b>16</b>	<b>10</b>

**LIBRARY AND READING ROOM ACCOUNT.**

Dr.	£	s.	d.	Cr.			
To Reading Room Expenses .. .. .	21	10	1	By Sales .. .. .	7	5	2
" Book Purchases and Binding .. .. .	37	3	1	" Revenue Account .. .. .	95	19	0
" Cost of Library Catalogue .. .. .	44	11	0		<b>£103</b>	<b>4</b>	<b>2</b>
	<b>£103</b>	<b>4</b>	<b>2</b>		<b>£103</b>	<b>4</b>	<b>2</b>



# Institute Luncheon.

The now customary Luncheon in the Grand Hall followed the Annual General Meeting of the Institute at the Connaught Rooms, Great Queen Street, London, W.C.2, on Friday, 10th March, 1944. The assembly numbered 490 members and guests.

The President, Engineer Vice-Admiral Sir George Preece, K.C.B., was in the Chair, and there were present the following eminent guests: The Rt. Hon. A. V. Alexander, P.C., C.H., M.P. (First Lord of the Admiralty), The Rt. Hon. Lord Marchwood, K.C.V.O., J.P. (Master of the Honourable Company of Master Mariners), The Rt. Hon. Sir Samuel Runganadhan (High Commissioner for British India), The Rt. Hon. Lord Rotherwick, J.P., D.L. (Chairman, Clan Line Steamers, Ltd.), Vice-Admiral Sir W. F. Wake-Walker, K.C.B., C.B.E. (Third Sea Lord), Col. Deney Reitz (High Commissioner for Union of South Africa), The Rt. Hon. W. J. Jordan (High Commissioner for New Zealand), Eng'r. Vice-Admiral Sir F. R. G. Turner, K.C.B., O.B.E. (Engineer-in-Chief of the Fleet), Com'r Sir Charles W. Craven, Bt., O.B.E., R.N. (ret.) (Past-President, Institute of Marine Engineers), Sir George H. Wilkinson, Bt., Major John M. Henderson (Acting Agent General for Northern Ireland), Sir Cyril Hurcomb, K.C.B. (Director-General, Ministry of War Transport), Sir S. L. Pearce, Kt., C.B.E., D.Sc. (Engineer-in-Chief, London Power Co., Ltd.), Sir Stanley V. Goodall, K.C.B., O.B.E. (Assistant Controller of Warship Production), Asa Binns, Esq. (Past-President, Institution of Mechanical Engineers), Sir Amos L. Ayre, K.B.E. (Director of Merchant Shipbuilding and Repairs), Eng'r. Vice-Admiral Sir R. W. Skelton, K.C.B., C.B.E., D.S.O., Ernest L. Jacobs, Esq. (Chairman, Lloyd's Register of Shipping), H. R. Ricardo, Esq., LL.D., B.A., F.R.S. (President, Institution of Mechanical Engineers), F. A. Greene, Esq. (President, Institution of Chemical Engineers), Basil Sanderson, Esq. (Chairman, The Shipping Federation, Ltd.), J. D. C. Stone, Esq., A.C.A. (Messrs. West & Drake), P. Good, Esq., C.B.E. (Vice-President, Institution of Electrical Engineers), Victor Wilkins, Esq., F.R.I.B.A., W. G. D. Holloway, Esq. (General Secretary, Marine Engineers Association), W. Archer, Esq. (Hon. Solicitor, Institute of Marine Engineers), Capt. D. S. Tennant (Officers' (Merchant Navy) Federation, Ltd.), Capt. J. Dabkowski (Poland), Capt. L. Droguet (France), Capt. J. Fafoutakis (Greece), Mr. A. J. Janssens (Belgium), Mr. J. H. Larsen (Denmark), Mr. A. Lovgren (Norway), and Mr. J. P. F. Mentinck (Holland).

The Loyal Toasts having been honoured, the **Rt. Hon. Lord Marchwood, K.C.V.O.**, Master of the Honourable Company of Master Mariners, proposed the toast of "The Institute of Marine Engineers".

He said: "Looking back over the years, I find that 10th March is a somewhat eventful day in my life. Some sixty-eight years ago, on that date, I was brought willy-nilly into this world, which I faced with a calm equanimity—so far as my memory serves me!—which hardly describes the feelings that I have to-day in addressing this large and important gathering. I feel very proud and honoured to be your guest to-day and to propose the toast of your Institute, as it provides me with an excellent opportunity of expressing my sincere appreciation of the cordial relations which have existed between your Institute and the Honourable Company of Master Mariners, and which I trust will always continue, and also of paying a small tribute to a body of men who deserve well of their country and of all who go down to the sea in ships.

The war has brought a keener realisation of what we owe to the Merchant Navy and to the men on and below deck. (Applause). There is a fuller realisation of the dangers which they encounter and of the risks which are involved in traversing the seas to bring us the necessary war equipment, supplies of raw materials, and the wherewithal to live. The cheering news given to us recently in Parliament by the First Lord of the Admiralty, with whom I have had the pleasure of enjoying my lunch to-day, has impressed us all. We shall all wish him God-speed in the good work which he is doing. (Applause). He told us in Parliament that our losses in convoy for the latter half of 1943 had been reduced to one ship in a thousand. That is a great triumph for the Royal Navy and a great comfort and relief to the minds of those poor souls who have their folk serving at sea. He also told us of the 25 per cent. reduction in ordinary marine losses, due to the better navigational facilities which we have at the present time. It gladdens the heart of the nation to know that the efforts which are being made are being successful.

Team work reaches its highest expression in a ship's company, whether it be in the Royal Navy or in the Merchant Navy. Their interests are identical. Each member of the crew in his respective station plays an essential part in bringing the ship along her course. The captain on the bridge is helpless without the aid of the engineers down below to carry out the orders.

The nation must see to it that these men below deck receive the

most generous consideration after the stress of war has passed, so that they may have a career under the very best conditions. I am in the happy position to-day of being able to tell you that Lord Leathers, our Minister of War Transport, fully realises this—no-one better than he—and he is determined that they shall have the best obtainable conditions of employment. (Applause). I feel that these men will have much for which to be grateful, for he is sparing no effort to see established permanent post-war conditions worthy of these men and of what they have done, realising that without an efficient mercantile navy the battle for freedom and liberty could never have been won.

Under his supervision, the Merchant Navy Training Board, which represents all the interests in the industry, is reviewing the position of engine-room officers and engine-room ratings. It is also considering the proposals drawn up by your Institute dealing with the training and grading and conditions of service of marine engineers, as well as the review drawn up in 1941 regarding the existing systems of training in the various maritime countries.

The capable administration of Lord Leathers in the stupendous task of controlling and organising our war transport has commanded the admiration of everyone in the country, and his name will ever be held in the highest esteem by the seafaring fraternity for the generous, sympathetic and ready way in which he has dealt and is dealing with the many and varied problems connected with the mercantile marine and its well-being.

To my mind at least, as a layman and an old sailor, the engineering profession is one of infinite ramifications. There are the lighting, heating and ventilating engineers, the electrical engineer, the mining engineer, the agricultural engineer and in fact an almost infinite variety of engineers; and amongst them I would make special reference to those "back room boys" who, with the scientists, turn out that useful engine of war known as the 5½-ton bomb, which is blasting and obliterating the potential industrial capacity of the Hun, and which will bring about a quicker ending of this war and save the lives of our men. I ask you to salute them. (Applause). There are other engineers who are concerned with propulsion and movement—the locomotive engineer, the aeronautical engineer, the automobile engineer and the marine engineer.

Much depends on the ability and skill of the marine engineers, the men who design and make the ships' engines and the men who tend them at sea and contrive to get every ounce of power out of them. Your brains have conceived and your skill has contrived engines which have revolutionised the traffic of the oceans, which have constricted the vast expanse of the seven seas, and which have made the journeys between the gateways of the nations swifter and surer. That is indeed a wonderful record.

The marine engineer also has the special distinction of being amphibious; he functions both on land and on water, and there is no knowing to what extent his duck-like proclivities will develop in the future. Already we have in warfare the amphibious tank, which moves and fights on land and sea, and, casting my mind forward in the manner of Old Mother Shipton, I can visualise the amphibious ship, which will not only sail the seas but come ashore and deliver her cargo to the warehouse. This may seem to some a fanciful picture, but if it is brought about, as I believe that it will be, it will be due in great measure to the skill and the ingenuity of the marine engineer.

During a recent visit to Canada, I saw the most wonderful engineering feats being carried out in that great Dominion. At Montreal, cargo vessels of great size were being built on the surface of the land, and, when constructed, moved by winches to a slipway and launched bow first. My vision of the future is not, therefore, so extreme as it may sound, because that is more or less the reverse of what I have depicted. The manager of those works, who was considered to be an engineering wizard, told me that before he launched his first ship bow first his anxiety of mind could hardly be described, and just before the launching he determined that he must have expert advice. He therefore got hold of an eminent marine engineer and said to him: "Do tell me what will happen to that ship when she goes down the slipway bow first". They talked the matter over, and the marine engineer, who was a wise man, like all of you here to-day, replied: "Sir, I should not like to give you an expert opinion, because I feel that that is the job of a naval architect". The manager therefore went to a naval architect and explained his dilemma, and the naval architect replied: "It is very difficult to say what will happen, but it is really a question for the marine engineer to decide". (Laughter). With that, the manager's anxiety increased still further, and he thought "I will invoke the aid of the Old Country", and he did so; he bought himself a bottle of Scotch whiskey, and he found that it restored the faith he had in his



own conclusions. (Laughter). The ship was launched, and everything went off without a hitch! That proves that if strong measures are to be taken, you must take them! (Laughter).

Your Institute has done much to better the lot of the marine engineer. It provides him with a central organisation through which he can work to improve his own status and to improve the conditions of the profession generally. It is a kind of clearing house for ideas. It provides facilities for the pooling of experiences and for discussion among its members. These discussions have covered the widest range of marine engineering science and practice, and over the more than fifty years for which your Institute has existed the cumulative effect of this must have been truly remarkable.

Another splendid feature of your Institute to which I should like to refer is the work which you do to help the young man who wishes to join your profession. You give him every facility that you possibly can to help him, evidently believing in the old adage, "Catch 'em young and train 'em well and they'll work their best". I knew a young apprentice who lived for the day when he would go aboard a ship as a marine engineer. He was a boy of great promise and great ability, who lived for his work. His first ship was torpedoed and lost, and the crew underwent terrible sufferings. His second ship struck a mine. They got her to port and repaired her, but on her next voyage she was torpedoed, and the boy went down with the ship, on his 21st birthday. In all his letters home he never spoke of the miseries and the trials of sea life, but of the glories of the engine-room and the happy association he had with his fellows. I feel that that boy died because his work was his hobby.

Another striking instance is that of Engineer-room Artificer Goddard, who served on one of the small submarines which went up the Alta fjord and torpedoed the "Tirpitz". He is now a prisoner of war in Germany, and for his gallantry he was awarded one of the highest distinctions in Naval awards, the Distinguished Gallantry Order. These things inspire one, and I am sure that that same spirit of devotion to duty inspires all ranks of the marine engineers. The number of awards bestowed by His Majesty on these men, including the D.S.O. and the George Medal, shows the heroism of the marine engineer and adds lustre to your profession. Your Institute is a magnificent one and attracts to its membership men who are proud of their profession; and, so long as that is so, it will continue to work for and to help the cause of the marine engineer.

I visualise that when this war is over we shall enter into a phase in every walk of life where developments and expansion will be taking place, and those who are willing and who are equipped to take advantage of the opportunities provided—and your Institute is helping you in that direction—will have something to work for and a future well worth living.

There are many other things that I should like to say, but in proposing a toast of this nature I should be trespassing too much on your good nature were I to tell you of the views I hold about the work which you are doing. You are, to my mind, to be congratulated most sincerely on being members of a distinguished and honoured profession, and on being members of an Institute of great distinction. I trust that you will cherish that idea and ensure that your Institute goes from strength to strength.

Your Institute attracts men of great ability to preside over its destinies. When I first came here as your guest, your President was Sir Percy Bates, the Chairman of Cunard White Star, a man connected with shipping and mercantile activities and with a splendid record of public endeavour. He was succeeded by Lord Mottistone, who I am sorry to say is not able to be here to-day, owing to a slight indisposition. Universally known as "Jack Seely", he has played a great part in our national life and is, like Johnny Walker, "still going strong", and I hope will long continue to do so. To-day your President is a man of great attainments, and also a very human man. I feel that his ideals and mine are very akin. He has had a marvellous record in the Navy, where his great abilities brought him promotion eventually to the high position of Engineer-in-Chief.

I thank you most cordially for listening to me so patiently, and my birthday greeting to you is, May you live as long as you want, and may you never want as long as you live. (Applause). In that spirit I propose the health of the Institute of Marine Engineers, coupled with the name of your gallant and human President, Sir George Preece. (Applause).

**The President**, who responded, said: I am sure that I shall be correctly interpreting the desire of everyone present here to-day if I commence by wishing Lord Marchwood, who has so kindly and so eloquently proposed the toast of the Institute, "Many happy returns of the day".

It is customary on one's birthday to be the recipient of gifts; but he has reversed the general order of things and has made us a handsome present instead.

It seems to be most appropriate that the first word should come

to us from the Master of the Honourable Company of Master Mariners and that the Marine Engineer should reply. He has, as it were, operated the engine-room telegraph and I am now about to operate the reply-gong.

In war-time, people are, or should be, prepared for anything, and so I will not take up your time apologising for appearing before you as President of this Institute for a second year. I will just leave it that so many suitable candidates are at present fully occupied with essential war work. At the same time it is natural that you should want to know how the Institute has fared during the past twelve months and I remember that, on this occasion last year, I expressed some fears as to whether I should be able to maintain the standard of progress set by our still Immediate Past President, Lord Mottistone.

I am glad to be able to report that we have done more than hold our own against losses, many through enemy action, and that the membership curve is still rising. Lord Marchwood has referred to the work done by the Institute in the past half-century, and I will not say more than that its capacity for further good depends very greatly on the number of its members as well as their individual ability.

His reference to the duck-like quality of the marine engineer is very illuminating and throws a new light on the old saying "Taking like a duck, or marine engineer, to water".

Possibly the happiest event of the past year has been the inauguration of the John Silley Memorial Fund to operate in conjunction with the Guild of Benevolence. Mr. John Silley was President of this Institute and it was during his year of office, and largely due to his enthusiasm and energy, that the Guild was founded. Thanks to the generosity of those with whom he was closely connected by business and by family ties, the Guild will in the course of a few years have its capital increased by the truly noble sum of £30,000.

Great pleasure has also been felt at the receipt of generous donations from numerous firms and individuals, directly or indirectly connected with shipping. Quite apart from the material benefit afforded by these contributions, the marine engineer gets a great deal of solid satisfaction at seeing, in the list of contributors, those names which are familiar to him as household words.

However, I would not have you left with the idea that the Guild is now so well off that no further subscriptions are needed; nor that in the new world that is being planned for us, there will be none that requires assistance. It does rather appear that too many people are agitating themselves about the precise set up of this new world; whereas, what they ought to be agitated about is, whether they will see a new world at all on this side of Jordan. When an individual is set upon by a gang of thugs, and is fighting for his very life, it is pretty certain that he is not much concerned with whether or no it will be a fine day to-morrow, but rather whether he will see any to-morrow at all.

Engineers, by their training, are cautious people and most of them feel that there will be, at the best, some slight delay in the delivery of Utopia. They have been brought up on the hard laws of thermodynamics, the first of which may be expressed in popular language by saying that you don't get something for nothing, whilst the second tells them, in effect, that, the conditions in this world being what they are, you cannot even get a one hundred per cent. conversion of heat into work but must suffer loss.

And so you cannot interest them in schemes for perpetual motion; nor are they to be found in those places where the possibility of such schemes are debated.

Whilst no praise can be too high for the great majority of the citizens of this country it cannot be disguised that it contains a minority that must be vastly improved before we can honestly consider that we deserve the promised millennium. I pass over the more serious forms of crime and think of the oddities that remove 3,000 blinds, 6,000 shades and 12,000 lamps in a few months from one railway alone.

And what of those, who Petty Officer A. P. Herbert, M.P., has recently described as "that type of indigenous citizen which delights to place unwanted perambulators in the emergency water supply tanks thoughtfully provided against the burning of the capital?" Is it not a tragedy that the precious bones of some of our seamen lie on the bed of the ocean because people in this country can't be bothered to save the bones that are refuse? And, as if that were not bad enough, we have heard recently announcements that the receptacles for these refuse bones are being stolen in such quantities as to render their provision a very serious matter.

There are some who think that all this can be cured by more education and if, for instance, as it is perhaps most charitable to suppose, those people who smoke in non-smoking compartments whilst gazing blankly at the prohibiting notices are, in fact, wholly illiterate, then education will help by teaching people to read. Education can impart a knowledge of etiquette but I doubt if it necessarily



ensures good manners, which are a natural manifestation of consideration for others.

Some again are inclined to wonder whether conditions which provide free, all that we need from pre-natal attention to post-mortem cremation will not, in some measure, tend to sap that spirit of rugged independence, which has been so marked a characteristic of our people in the past. So I say we are cautious and feel that help may still be needed by those who have suffered adversity through no fault of their own.

I have taken a keen interest in the work of the Institute during the past year and I honestly think that members can fairly claim that they have done all that is possible to further the objects and purposes set out in its Charter.

Referring to Lord Marchwood's remarks on training, the Institute has, amongst other things, kept a sympathetic but nevertheless watchful eye on the means that have been quite necessarily adopted for training the junior engineering staffs of our ships.

We are very grateful to Lord Leathers for his efforts to improve the lot of the sailor and, for our part, we shall do all that we can to ensure that the professional standard of the marine engineer is adequate to deal with the more advanced types of machinery that will inevitably appear in the near future.

The Education and Membership Committees have had under review the question of qualifications for membership whilst, thanks to the Papers and Transactions Committee, a number of interesting and informative papers have been read and discussed.

In a manner similar to that in which Parliament has been taking an interest in electoral reform, the Institute has been, and is, examining its own organisation to see if it can be improved. It may be that the present structure will be found to be as nearly perfect as human beings can make it and that no important changes are necessary, for contrary to the attitude of many people in this country, the members are not imbued with the idea that change necessarily means progress. They realise that there is something in tradition and that the old ways are not necessarily bad ways. I am perhaps a prejudiced supporter, but I agree whole-heartedly with Lord Marchwood that team work reaches its highest expression in a ship's company. If I may say so, I think the Institute has a very good ship's company.

It remembers those principles and those people that have served it well in the past and is not so ready as some to throw them overboard and follow after new and strange gods, who promise them a new heaven and a new earth, without producing any evidence that they are competent to deliver the goods. This country has the merit of possessing its best team spirit when it is right up against it; but when things improve it tends to find things monotonous and wants a change at all costs. Apropos of monotony I am reminded of an authentic story of a brief conversation which took place between the captain of one of our ships and his valet the morning after the "Scharnhorst" was sunk:—

Captain: "Well X, what did you think of our bit of excitement yesterday?"

X: "It makes a change, Sir".

I cannot end without thanking Lord Marchwood for his kindly reference to myself. I was fortunate in having exceptionally able people to bring me up, amongst them being Lord Chatfield and Sir Harold Brown, neither of whom, I regret, is able to be with us to-day, and Sir Reginald Skelton who I am glad to say is present.

I have been fortunate in those, whom, I like to think, I in turn had some small share in bringing up, amongst whom I think specially of Sir Frederick Turner, my successor as Engineer-in-Chief of the Fleet. No man could have had a better team than I had and I feel that I shall always owe its members a deep debt of gratitude for all that they did.

In conclusion, may I say how greatly I appreciate the honour of being asked to undertake a second year of office and say how much I have enjoyed the year that is past, and how much I look forward to another year to be spent working in such happy and thoroughly congenial company.

**Commander Sir Charles W. Craven, Bart., O.B.E., R.N. (ret.)**, (Past President of the Institute), then proposed the toast of "The Guests".

He said: "I feel that I am in a somewhat difficult position. I am invited to be a guest here to-day, and I then have to propose the toast of myself and the other guests! At this late hour, I cannot detail to you the past lives of all the guests whom you see at this top table, and the only one about whom I know a very great deal I dare not tell you about—Admiral Sir Reginald Skelton. I was shipmates with him in my early youth. Those from the Service who are here will agree that in a respectable assembly of this kind I cannot tell you all that I know about his actions during his very successful Naval career, and it might wreck his chances of going on

and getting a pension from the Admiralty if I did so! (Laughter).

I will not read out to you the list of all your guests which was furnished to me, with his usual diligence, by your Secretary, but I must refer to the presence of the First Lord of the Admiralty (Applause), who has come here well protected by a large bodyguard, including the Controller of the Navy, the Engineer-in-Chief (in case any technical questions might arise, about which the First Lord might have to say something), Sir Stanley Goodall, the Assistant Controller, and Sir Amos Ayre, the Director of Merchant Ship-building, who will be able to tell Lord Marchwood all about the various ways of launching and not launching ships.

You also have as your guests the High Commissioners of New Zealand, India and South Africa, and the Acting Agent-General of Northern Ireland. (Applause). You have also Mr. Basil Sanderson, Chairman of the Shipping Federation, and Mr. Jacobs, the Chairman of Lloyd's Register, who sits in a kind of pulpit, and on my occasional attendances looks down at me with a rather supercilious expression. I am sure that in his other capacity at Lloyd's he will be greatly delighted to hear of the reduction in our losses at sea during the last few months, and will hasten back to his office to return the premiums which the underwriters extorted on 1st January. (Laughter).

Then you have the Presidents of many learned Societies, most of which have some connection with the great sea industries, and last but not least representatives of the Merchant Navies of some of our Allies—Poland, Holland, France, Belgium, Greece, Denmark and Norway. (Applause). It was a very happy thought on the part of your Council to invite these gentlemen, for whom we have such a tremendous admiration. (Applause).

I couple with this toast the name of Lord Rotherwick. I first heard his family name when his father was standing as a Parliamentary candidate for Barrow, and I tried to get him into Parliament, in order that we might build one or two ships for his line—on which, I may say, we made a very handsome loss. (Laughter). He is head of one of our greatest merchant fleets, one of the best-managed in the country, and he deserves the sympathy of everyone here on the serious losses which that great fleet has suffered during the war. He has given almost the whole of his life to the industry of the sea and to all organisations connected with the sea, and it is therefore with great pleasure that I ask him to reply to this toast.

I give you the toast of the Guests, coupled with the name of Lord Rotherwick. (Applause).

**The Right Hon. Lord Rotherwick, J.P., D.L.** (Chairman, Clan Line Steamers, Ltd.), in responding, said: The honour of replying for the guests has been entrusted to me. I should like first to thank Sir Charles Craven for the kind things which he said about myself and my father, and to say that the loss to which he referred was mutual. (Laughter). I know that many of you have important engagements this afternoon, and therefore my reply will be brief; after all, brevity is the soul of wit.

I know that my fellow-guests would wish to join with me in taking this opportunity of paying a tribute to the splendid services of the officers and men of the Merchant Service during these very difficult and dangerous times, but I should like to refer in particular to one branch of that Service, the sea-going engineers and their staffs. Although very often below deck when their ship is attacked, and very often quite in the dark, both metaphorically and literally, having no idea during an engagement of the progress of events, not knowing whether at any moment their ship will, as a result of enemy action, sink beneath the waves, they stick to their posts and carry on most gallantly, without any regard to personal safety. Their courage, determination and sense of duty are beyond all praise, and are in keeping with the age-long traditions of the Service.

I should also like to refer to the honours which have been so deservedly awarded to many of them, including many members of this Institute. The Institute of Marine Engineers does a great deal of valuable work, which is not as widely known as it ought to be, in the exchange of technical knowledge by its members with other bodies, and it has also for a number of years been interested in the training of engineers, with a view to an increase in technical knowledge. In this work I wish it every success. There is no doubt that the Institute can play a most important part in furthering research into the many problems that have confronted owners, their staffs and engine-builders, and especially those which arise as a result of war conditions.

I thank Sir Charles Craven for the terms in which he has proposed this toast, and I thank you all for the way in which you have received it. I thank the members of the Institute for their hospitality, which we have all so very much enjoyed, and I express the wish that the Institute will continue to enjoy in the future the great success which it has had in the past. (Applause).

The proceedings then terminated.



# THE INSTITUTE OF MARINE ENGINEERS GUILD OF BENEVOLENCE—Tenth Annual General Meeting.

The Tenth Annual General Meeting of The Institute of Marine Engineers Guild of Benevolence was held in The Institute Library on Wednesday, 12th April, 1944, at 2 p.m. Mr. James Carnaghan, Chairman of the General and Executive Committees, was in the Chair, and there were present fifteen members and officers. Engineer Vice-Admiral Sir George Preece, K.C.B., President of The Institute, was also present.

**The Chairman**, in his opening remarks, said:—

"On behalf of the Guild of Benevolence I tender our sincere thanks to The Institute of Marine Engineers for their continued financial support in the form of donations from the Social Events and Publications Accounts.

We are also grateful to those members of The Institute and of the Guild who have contributed, or have been instrumental by their persuasive powers, in obtaining contributions to the funds of the Guild.

Once more we appeal to the members of The Institute who have not become members of the Guild to assist the good work by joining without further delay. With the hope that they may become seriously interested, I cite the following instances in which we have been enabled to render assistance:—

- (a) A Member of The Institute, who has an aged mother to support, was paralysed while in the prime of life.
- (b) The orphaned son of a late Member, being desirous of becoming a marine engineer, is being assisted in his maintenance while still a juvenile.
- (c) The widow of a Member who died in Durban through illness not directly attributable to the war, is being assisted while awaiting the result of her application for a pension.
- (d) The widow of a late Member residing at Ranchi, India, has been granted a monthly allowance. This has been arranged through Mr. C. S. McCaskie, The Institute's Vice-President at Calcutta, and our thanks are due to him for undertaking the responsibility of transmitting the allowance on our behalf.

In several cases of extreme hardship we have made special grants in order to tide beneficiaries over their immediate difficulties, and these recipients have expressed their heartfelt appreciation. In a recent instance of this nature, where a special grant had been given to a widow, after recording her thanks she stated "Your letter arrived when I had only two sixpences left".

We have also contributed towards the education of children of deceased marine engineers where they have been left partly or totally unprovided for as regards special educational training which their parents had planned for them before disaster had fallen on the head of the family.

If members become aware of any cases of distress affecting members or dependants of members of The Institute or of the Guild, they should forward particulars to the Secretary, when the Committee will endeavour either to relieve or ease these adverse circumstances.

May I reiterate our appeal to all members of The Institute to become members of the Guild and thus assist us in our efforts to aid those who through adverse circumstances require assistance in their troubles".

**The Secretary** then read the Annual Report (see page xxix).

**The Honorary Treasurer** next presented the official Auditors' Report on the Annual Accounts (see page xxxv), and his own report thereon as follows:—

"Messrs. West and Drake have prepared the accounts this year in accordance with the requirements of the King George's Fund for Sailors, as was intimated last year, and they will continue to be submitted in this form henceforth.

Those of you who were present at the Annual General Meeting of The Institute will have heard the advance information which I gave at that Meeting. Strictly speaking this information should have been conveyed to you first. Unfortunately, the Annual Meeting of The Institute takes place before the Annual Meeting of the Guild of Benevolence and it is only due to the fact that the parent body are the Trustees of the Guild of Benevolence that it is found necessary to impart this advance information at the Annual Meeting of The Institute.

You will all be able to follow quite easily the comparison between the Balance Sheet presented this year and that of last year. I will, however, draw your attention to the principal features of both Balance Sheet and Revenue Account.

The Capital Account Balance Sheet shows an increase in investments of £500 3% Local Loans, £702 3s. 3% Savings Bonds 1960-70, and £985 3% National Defence Bonds. These purchases, totalling £2,187 3s., represent the investment of Life Membership Subscriptions of £163 4s., donations to Capital £1,334 13s. 5d. and £632 8s. 5d. in Post Office Savings Bank shown in the accounts for the year ending 31st December, 1942. Interest on Savings Bank Account is only 2½%, whereas the transfer gives a return of 3%. Life Membership subscriptions of £163 4s. are only slightly less than those of last year, which amounted to £178 10s.

Donations to Capital you will observe stand at £1,334 13s. 5d., a very substantial increase in our Capital Funds and due, may I say, almost entirely to the continuous and persistent efforts of our President in advertising the claims of the Guild of Benevolence in so many directions. I feel sure Sir George Preece would make an excellent Treasurer of any charity organisation. It would be very remiss on our part not to thank him for his efforts and to congratulate him on his persuasive powers which have proved so successful.

Whilst referring to donations made to our Funds, I may say there were 132 separate donations in all, ten of which were for 100 guineas or £100, in addition to which are the contributions to "The John Silley Memorial Fund". We wish to thank all those donors very heartily for the contributions they have made to our Funds during the past year, and we invite as many others as we can find to share in the good work.

The outstanding feature of the year is the institution of "The John Silley Memorial Fund", very fully referred to in the Annual Report just read by our Secretary. There is no need for me to amplify that Report. You will, however, take note of the way in which the total contribution for the year, i.e., £11,500, has been invested, viz.:—

£3,000 2½% Consolidated Stock.  
£6,000 3% Savings Bonds 1960-70.  
£2,500 3% Local Loans.

These investments were decided upon after very careful consideration by your Committee and in consultation with Mr. H. A. J. Silley. Our Accounts will continue to show the increments in Capital annually on the one side and how the money is invested on the other side, and thus preserve the memory of our Past President, Mr. John Silley.

It is right that I should make reference to the Income from the Freehold Ground Rents. These are being paid in full with one exception, i.e., in West Ham, where we own numbers 1 to 20 and numbers 22 to 27 Bull Road. Numbers 1 and 2 have been totally destroyed by enemy action. Our Lessees are the London City and Midland Properties, Ltd., and under the circumstances they have served a notice of retention. As a result of this notice they are entitled to hold back the payment of the Ground Rent for the time being, amounting to £9 per annum on the two properties. Our Solicitor, Mr. Archer, has been kept fully informed of the position. The Ground Rent will ultimately have to be paid by the Lessees, and the only advantage, from their point of view, is that payment is held up for the time being. The whole of the remaining Ground Rents have been paid in full.

You will also note that we have made an additional investment of £797 17s. in 3% Savings Bonds 1960-70 from our Revenue Funds. This has been possible owing to the large excess of Income over Expenditure for the year 1942, which amounted to £1,972 4s. 3d.

Members will appreciate that although our accounts are being presented in conformity with the requirements of King George's Fund for Sailors, this does not preclude the investment of excess Revenue funds. The only requirement is to keep the Revenue investments separate, to enable us to realize them quickly, in the event of any sudden demand for relief in excess of ordinary requirements. On Income and Expenditure Account, the amounts distributed during the year total £1,151 6s. 6d., as compared with £940 8s. 6d. last year, an increase in outgoings of £210 18s.

Donations credited to Income and Expenditure Account amount to £552 8s. 7d. as compared with £1,504 4s. in the previous year. This decreased amount is due to the fact that so many of our



Donors expressed the desire that their contributions should be credited to Capital Account.

The contribution received from King George's Fund for Sailors in the past year is only £200 as compared with £400 in the previous year.

Taking the total donations credited to Capital Account and Income and Expenditure Account (including the contribution from King George's Fund for Sailors in each year) the total for the past year is £2,087 2s., as compared with £1,904 4s. for the previous year.

The cost of administration is £95 6s. 4d., as compared with £93 6s. 5d. last year.

You will note that the Auditors' fee has been increased from £5 5s. to £10 10s. This, however, is for the one year only, and is due to the fact that two sets of accounts had to be prepared for 1942, while a considerable amount of additional work was also involved in changing over the accounts to the method now adopted to meet the requirements of King George's Fund for Sailors. After this year the fee will revert to £5 5s., which I may say is really only a nominal fee as far as our Auditors are concerned. We have to thank our parent body for bearing the main cost of the audit, and in this connection I should like, on behalf of our members, to express our best thanks to Mr. Stone of Messrs. West and Drake, for the extreme interest he takes in all questions associated with the Guild of Benevolence.

The Committee decided on this occasion to print a complete list of donors with the amounts subscribed from the inception of the Guild of Benevolence up to 31st December, 1942, and this is attached to the Report.

In closing, I should like again to emphasize the desirability of all members of The Institute becoming members of the Guild. It does not seem right that only approximately twelve per cent. of the members of The Institute should be members of the Guild. The subscription is so small that one would have thought that all members of The Institute would have joined the Guild of Benevolence immediately".

**Mr. A. H. Mather**, in proposing the adoption of the Report and Accounts, said that with the Honorary Treasurer's notes they gave a very clear idea of the position of the Guild. It was very satisfactory to note that the Guild was now in a position to give substantial assistance where necessary, and the amount distributed during the past year was gratifying. The list of donations was impressive, and especially the John Silley Memorial Fund, for which they were most grateful. Perhaps the Committee could find some means of persuading more members of The Institute to become members of the Guild; that was an object which Mr. John Silley so urgently desired.

**Mr. A. H. Ledger**, seconded Mr. Mather's proposal, and the Report and Accounts were unanimously adopted.

**Engineer Vice-Admiral Sir George Preece**, in proposing the re-election of Mr. James Carnaghan as Chairman of the General Committee for the ensuing year, said that dispensers of charity were well aware that there were people who were prepared to dip their hands into any till which happened to be open. To deal successfully with applications which came before the Guild, the Chairman must be a combination of wisdom, shrewdness, kindness and sympathy founded on long experience. In Mr. Carnaghan they had such a man, and he proposed that, subject to his consent he be re-elected as Chairman for the ensuing year.

This proposal was seconded by Mr. T. A. Crompton and carried unanimously.

Mr. Carnaghan thanked the meeting for their expression of confidence, and signified his willingness to continue in office for another year. He next proposed that the following nominees be elected to the General Committee for the ensuing year:—

*Vice-President*: S. N. Kent (for re-election).

*Member of Council*: H. J. Wheadon (transfer from Member of the Guild).

*Members of the Guild*: Captain B. Warwick (for re-election).  
A. F. C. Timpson (transfer from Member of Council).

This proposal was carried unanimously. On the Chairman's further proposal, the Honorary Auditors, Messrs. W. D. Heck and A. F. C. Timpson, and the Honorary Solicitor, Mr. W. E. Archer, were unanimously re-elected for the following year.

A letter was read from Dr. W. Galt, stating that as he had recently retired from practice in the City and had settled in Devon, he had no alternative to tendering his resignation of the post of Honorary Medical Adviser to the Guild. He regretted being unavoidably absent from the meeting, and wished the Guild every success.

On the Chairman's proposal, Dr. Galt's resignation was accepted with much regret and with an expression of grateful appreciation of his past services. The question of a successor to this post was deferred for consideration by the General Committee.

**Mr. James M. Dewar** said that he esteemed it a great privilege to propose a vote of thanks to the General and Executive Committees and Officers of the Guild. He thought that one of the outstanding features of our national history was that we had always found a number of men of integrity and calibre to come forward to maintain and control the destinies of our great institutions. The men who had controlled The Institute's benevolent organisation since its inception had been well-known to marine engineers; they had given of their best to the profession. In these days especially one admired their public spirit in attending meetings of the Guild Committees to administer the funds, and he was voicing what he was sure was the feeling of the whole membership in thanking them for what they had done. He felt sure that the late Mr. John Silley would have been very pleased indeed to know that they were continuing what he had begun in founding this Guild of Benevolence. He expressed in the name of The Institute their gratitude to their present President, who had done so much to supplement the Guild's finances and had assisted in its administration. He was very pleased that the Chairman had agreed to continue in office for another year, and he felt sure that in his good hands and with the Committee as appointed the members might rely upon excellent administration of the Guild's affairs.

**The Chairman**, in reply, said:—

"On behalf of the General and Executive Committees and the Officers of the Guild I thank Mr. Dewar for his kind remarks. I desire personally to thank the Honorary Treasurer, the Secretary, and one of his staff, Mrs. J. P. Watson, for the efficient manner in which they have carried out their duties throughout the session. I also tender my thanks to the members of the General and Executive Committees for their loyal assistance. Although there have been no nominal meetings of the Executive Committee during the past session owing to war emergency, the members have attended the meetings of the General Committee and have kept themselves informed concerning the work of the Guild which I have carried out on their behalf. In this connection Mr. T. A. Crompton has rendered particularly valuable assistance on several occasions".



# Tenth Annual Report of the General Committee.

The Committee is pleased to report that during the past year the Guild has assisted 40 applicants qualified for relief in accordance with the Rules. Both the number of recipients of relief and the total amount of the grants exceed those of the preceding year.

The Committee tenders sincere thanks to the members and donors named in the following pages, who have so generously supported the Guild during the past year. In addition to the John Silley Memorial Fund donations, to which special reference is made hereunder, the donations include a number of substantial amounts received from firms in the marine engineering and allied industries, for which the Committee is very grateful. Many of these latter donations resulted from the personal efforts of Engineer Vice-Admiral Sir George Preece, President of the Institute, in making known the claims of the Guild for the support of engineering and allied industrial companies whose business was wholly or partly dependent upon the Merchant Navy. The Committee desires to express special thanks to the President for his effective co-operation in this direction and for the valuable advice and assistance he has rendered at their meetings.

Further grants from King George's Fund for Sailors are also gratefully acknowledged.

The Committee's thanks are again extended to the Liverpool Marine Engineers' and Naval Architects' Guild, the Marine Engineers' Association Benevolent Fund, and the Royal Alfred Aged Merchant Seamen's Institution for having participated in grants of relief to several applicants.

## Meetings of the Committees.

Since the date of the preceding Report the General and Executive Committees have held seven joint meetings. The Committees are again indebted to the Chairman, Mr. J. Carnaghan, who has assisted the Executive Committee by dealing initially with the applications received during the year, his decisions having been approved and confirmed by the combined Committees at their subsequent meetings.

## Applications for Relief.

A summary of the cases dealt with between 1st January and 31st December, 1943, is given on page 4.

Relief granted to these applicants amounted to £1,151 6s. 6d. In 34 of the cases the relief was continued from the preceding year.

## Membership.

34 Life Members and 32 Subscribing Members have been enrolled during the year. Allowing for losses by death and resignation the net result of these changes shows a total membership at the date of this report of 186 Life Members and 391 Subscribing Members.

134 of the Subscribing Members have covenanted to continue their subscriptions for seven years; this enables the Guild to claim repayment of Income Tax on these subscriptions, thus effecting a very appreciable addition to the funds available for distribution as relief. Particulars of the scheme and forms of covenant are obtainable on application to the Secretary.

## The John Silley Memorial Fund.

The donation of the John Silley Memorial Fund in October was the outstanding event of the Guild's year. Particulars of these magnificent gifts were published in The Institute's TRANSACTIONS for November, 1943, and in the contemporary Press, and are repeated hereunder for the information of non-members of The Institute.

"At a special meeting of the General Committee of the Guild on the 28th October, Engineer Vice-Admiral Sir George Preece, the President of The Institute, reported having received a letter in the following terms from Mr. H. A. J. Silley, the Chairman and Managing Director of Messrs. R. & H. Green & Silley Weir,

Limited, the well-known London firm of ship repairers:—

21st October, 1943.

Dear Sir George,

My brother and I have been considering for some time how best we might create a memorial in some tangible form to our late father, Mr. John Silley. His interest in The Institute of Marine Engineers and, in particular, his efforts in connection with the Guild of Benevolence during his term of office as President are, of course, well known to you. You will recall that when he made his special appeal on behalf of the Guild funds he set himself a target figure of £50,000. Unfortunately, ill-health intervened, both during his term of office and after, and this I am sure prevented his carrying his wishes into effect.

In view of the foregoing, my brother and I can think of no more fitting memorial than to help in attaining the objective which our father set himself. We have therefore decided to donate to the Guild under a covenant for seven years such sums as will in process of time aggregate to approximately £20,000. When our intention became known to my Board they expressed the wish that the Firm should also contribute to the Guild in memory of my father, the late Chairman of our Company, and I am extremely happy to inform you that at a recent meeting of our Board the Directors unanimously resolved to donate the sum of £10,000 to the Guild of Benevolence.

You can imagine, as Chairman and Managing Director of Green and Silley Weir, the pleasure it gives me to convey the news to you.

My colleagues on the Board, together with my brother and I feel that we should like these donations allocated to a special fund, to bear the name of 'The John Silley Memorial Fund'. This fund would, of course, be administered under the same rules and conditions as other monies already subscribed to the Guild of Benevolence.

I take this opportunity of conveying to The Institute and the Guild under your Presidency our best wishes for the future.

Believe me,

Yours sincerely,

(signed) H. A. J. SILLEY.

The Committee recorded their profound gratitude for these generous donations, and passed a unanimous vote of thanks to each of the three donors. Arrangements were made for the investment of these funds, and for the distribution of the income in accordance with the wishes expressed in Mr. Silley's letter.

The Institute is already deeply indebted to the late Mr. John Silley for his outstanding part in the founding of the Guild of Benevolence—an event which will always be associated with his year of office as President. He was justifiably proud of his distinction as the first President of The Institute to have attained that high office by successive advancement from junior membership, and the inspiration which he has thereby afforded to coming generations of young marine engineers will be considerably enhanced by this permanent memorial to his personality and achievements.

The newly augmented Capital Funds of the Guild will enable the Committee to extend materially its good work in alleviating cases of hardship among marine engineers, their widows and dependants. As such cases will inevitably continue to increase in the coming years, it may be hoped that other potential donors may be inspired by the actions of Mr. Silley and his brother, and of the Firm with which they are associated, to bear in mind the Guild of Benevolence as being worthy of all possible assistance".

JAMES CARNAGHAN,  
*Chairman of the General Committee*

B. C. CURLING, *Secretary.*

24th March, 1944.



**LIST OF DONORS TO  
THE INSTITUTE OF MARINE ENGINEERS GUILD OF BENEVOLENCE.**

From the date of foundation 2nd August, 1934 to the 31st December, 1942.

	£	s.	d.		£	s.	d.
Abell, Sir Westcott, S., K.B.E. ... ..	5	0	0	Furness Withy & Co., Ltd. ... ..	1,000	0	0
Adams, George (Legacy) ... ..	100	0	0	Galloway, J. H. ... ..		10	6
Adams, George (Trustees) ... ..	12	10	0	General Electric Co., Ltd. ... ..	21	0	0
Aitken-Quack, E. ... ..	5	5	0	Gerard, A. J. ... ..		3	8
Alfa-Laval Co., Ltd. ... ..	5	5	0	Gibson, A. T. ... ..		8	6
Allen, W. H., Sons & Co., Ltd. ... ..	105	0	0	Gordon-Luhrs, H., Lt.-Col., C.M.G. ... ..	2	1	0
Anglo-Saxon Petroleum Co., Ltd. ... ..	1,000	0	0	Gorringe, H. M. ... ..	1	1	0
Anonymous (8 donations) ... ..	45	0	0	Graham, W. ... ..		18	0
Anonymous... ..		8	6	Green, R. H. ... ..	100	0	0
Anonymous (4 donations) ... ..	1	8	0	Green, R. H. & Silley Weir, Ltd. ... ..	500	0	0
Anonymous (2 donations) ... ..	8	0	0	Gregg, A. E. C. ... ..		12	2
Anonymous (2 donations) ... ..	1	11	0	Gullett, T. E. ... ..		5	0
Anonymous (2 donations) ... ..	17	0		Hall, J. & E., Ltd. (3 donations) ... ..	150	0	0
Anonymous... ..	1	1	0	Harland & Wolff, Ltd. ... ..	250	0	0
Australian Institute of Marine and Power Engineers ... ..	1	11	6	Harrington, W. A. (5 donations) ... ..	2	12	6
Barr, H. (3 donations) ... ..	1	0	0	Harrison, F. J. ... ..	5	5	0
Beldam, C. A. ... ..	105	0	0	Hastie, J. & Co., Ltd. ... ..	105	0	0
Bennet, J. ... ..		5	0	Hawthorn, R. & W. Leslie & Co., Ltd. ... ..	250	0	0
Blundells & T. Albert Crompton & Co., Ltd. (2 donations) ... ..	21	0	0	Heenan & Froude, Ltd. ... ..	10	10	0
Booty, E. J. (5 donations) ... ..	2	12	6	Heriot, J. C. ... ..		19	0
Bridges, F. W. (Legacy) ... ..	100	0	0	Hopes, T. ... ..		8	6
M.v. "Brisbane Star" (Captain and Officers' Fund) ... ..	1	1	0	Howden, James & Co., Ltd. ... ..	21	0	0
British India Steam Navigation Co., Ltd. ... ..	750	0	0	Hutchinson, G. R. ... ..		12	6
British Power Boat Co., Ltd. ... ..	1	1	0	Hutchison, M. ... ..		5	0
British Thomson-Houston Co., Ltd. ... ..	25	0	0	I.C.I. Metals, Ltd. ... ..	10	10	0
A. & R. Brown, Ltd. (2 donations) ... ..	10	10	0	Inchcape, Rt. Hon. Earl of ... ..	1,000	0	0
Brown, F. T. ... ..		8	6	Institute of Marine Engineers (8 donations) ... ..	1,055	14	10
Brown, G. J. ... ..		10	6	Jackson, D. H. ... ..		10	6
Bruce, D. ... ..	1	1	0	Jones, F. M., B.Sc. ... ..		1	1
Buckton, W. W. (Legacy) ... ..	25	0	0	Kincaid, J. G. & Co., Ltd. ... ..	105	0	0
Burrage, E. E. ... ..		7	6	King George's Fund for Sailors (3 donations) ... ..	650	0	0
Burrow, N. ... ..		17	0	Kirkaldy, W. H. (4 donations) ... ..		14	6
Butler, E. F. ... ..		10	6	Klinger, Richard, Ltd. ... ..	21	0	0
Button, W. A. ... ..		10	6	Kuske, Z. (2 donations) ... ..	1	10	0
Calderwood, J., M.Sc. ... ..	2	2	0	Lang, W. V. ... ..	2	2	0
Campbell, A. K. M. (3 donations) ... ..	1	5	6	Laurence, Scott and Electromotors, Ltd. ... ..	21	0	0
Carnaghan, J. T., B.Sc. ... ..	2	2	0	Lees, T. R. ... ..	3	3	0
Christensen, S. G. (4 donations) ... ..	3	3	6	Leslie, R. ... ..	1	11	6
Christianson, W. A. (2 donations) ... ..	2	2	0	Lloyd's Register of Shipping ... ..	26	5	0
Clark, A. W. ... ..		10	6	Logan, A. ... ..		10	6
Clarke, Chapman & Co., Ltd. ... ..	500	0	0	Longmuir, T. W. (4 donations) ... ..	4	3	0
Clegg, A. ... ..	1	1	0	Mather, A. H. ... ..		10	6
Cleveland, E. G. ... ..		2	0	Mather & Platt, Ltd. ... ..	10	10	0
Coffyn, Captain T. ... ..	5	5	0	Mellor, W. H. (5 donations) ... ..	5	5	0
Colinese, S. G. (3 donations) ... ..	2	6	0	Middleton, W. J. ... ..	1	1	0
Collacott, R. A., Flight Lt., B.Sc., R.A.F. (2 donations) ... ..	5	5	0	Michell, J. ... ..		7	6
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Cookson, F. R. C. (4 donations) ... ..	2	10	0	Mumford, N. (4 donations) ... ..	13	8	0
Corr, D. J. ... ..	1	0	0	Murray, A. ... ..		6	0
Cottrell, A. B. ... ..	10	0	0	Murray, John & Pilot Press, Ltd. ... ..	25	0	0
Cowan, C. J. ... ..	100	0	0	Macdonald, T. ... ..	5	5	0
Craigmyle, Rt. Hon. Lord ... ..	105	0	0	McIntosh, G. ... ..		10	0
Cunard White Star, Ltd. (8 donations) ... ..	153	0	0	McKie, H. ... ..		1	1
Darwins, Ltd. ... ..	10	10	0	McLean, H. (5 donations) ... ..	6	18	0
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Drossi, H. H. R. ... ..	2	2	0	Oswald, J. H. ... ..		1	0
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Federal Steam Navigation Co., Ltd. ... ..	500	0	0	Preece, S. G. ... ..	10	10	0
Ferring Local Savings Group (3% Defence Bonds) ... ..	15	0	0	Prentice, C. (4 donations) ... ..	3	12	6
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Firth, T., & J. Brown, Ltd. ... ..	21	0	0	Raimes, G. W. B. (3 donations) ... ..	1	0	0
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Funnell, A. J. (3 donations) ... ..	1	11	6	Rebbeck, Sir F. E., D.L., J.P. ... ..	25	0	0



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Robinson, E. F. B. (2 donations) ... ..	1	0	6	Thompson, John (Wolverhampton) Ltd. ... ..	21	0	0
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Rubery, Owen & Messier, Ltd. ... ..	10	10	0	Tyrrell, H. R., Captain, I.A.O.C. ... ..	2	2	0
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Simpson, P. A. M., Major R. E. (3 donations) ... ..	6	15	6	Weir, James, Trust Fund ... ..	2,000	0	0
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Spanner, E. F. ... ..	10	0	0	Youldon, E. ... ..	10	0	0
Speirs, H. J. (Legacy) ... ..	450	0	0	Youldon, F. W. (collecting box—4 donations) ... ..	3	0	0
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Step, A. G. ... ..	1	6	4	Young, R. ... ..	2	6	0

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	£	s.	d.		£	s.	d.
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J. D. Middleton ... ..	10	6	0	Alexander Stephen & Sons, Ltd. ... ..	50	0	0
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J. H. Galloway ... ..	10	6	0	C. J. Swanbrow ... ..	1	1	0
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Anonymous... ..	1	1	0	T. W. Longmuir ... ..	1	1	0
Anonymous... ..	1	1	0	Sulzer Bros. (London), Ltd. ... ..	10	10	0
T. R. Cookson ... ..	10	6	0	Scott's Shipbuilding and Engineering Co., Ltd. ... ..	105	0	0
M. J. Booty ... ..	10	6	0	D. Bruce ... ..	5	0	0
J. T. Train... ..	10	0	0	J. W. Ramsay ... ..	2	12	6
W. O. Alton ... ..	5	5	0	Davey, Paxman & Co., Ltd. ... ..	10	10	0
H. Barr ... ..	10	0	0	Aiton & Co., Ltd. ... ..	10	10	0
G. R. Hutchinson... ..	15	0	0	Auto-Klean Strainers, Ltd. ... ..	10	10	0
G. Ormiston ... ..	5	5	0	H. R. Tyrrell, Capt., I.A.O.C. ... ..	5	0	0
W. Mellor ... ..	1	1	0	W. Imrie ... ..	1	0	0
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F. Turnbull ... ..	10	0	0	Pip ... ..	1	1	0
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Institute of Marine Engineers (Publications Account) ... ..	262	18	5	A. Risoe ... ..	6	0	0
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Babcock & Wilcox, Ltd. ... ..	105	0	0	H. A. J. Silley ... ..	1,000	0	0
G. W. B. Raimes ... ..	10	0	0	B. L. Silley, B.A. ... ..	500	0	0
Foster Wheeler, Ltd. ... ..	10	10	0	Blundells & T. Albert Crompton & Co., Ltd. ... ..	10	10	0
L. D. Trenchard ... ..	1	1	0	J. & E. Hall, Ltd. ... ..	50	0	0
Lt. Col. H. Gordon-Luhrs, C.M.G. ... ..	1	1	0	English Electric Co., Ltd. ... ..	105	0	0
T. E. Gullett ... ..	3	0	0	Z. Kuske ... ..	1	8	0
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Mrs. B. Williams ... ..	2	2	0	Tube Investments, Ltd. ... ..	25	0	0
S. G. Christensen... ..	17	6	0	A. & R. Brown, Ltd. (third donation) ... ..	5	5	0
W. E. G. Wallace ... ..	8	0	0	J. Foster Petree ... ..	10	10	0
John I. Thornycroft & Co., Ltd. ... ..	21	0	0	Dewrance & Co., Ltd. ... ..	26	5	0
G. Kirkbright ... ..	1	0	0	J. J. Preston (second donation) ... ..	5	0	0
Yarrow & Co., Ltd. ... ..	52	10	0	Anonymous... ..	10	0	0
Walter Somers, Ltd. ... ..	52	10	0	H. J. Jordan ... ..	5	2	0
A. P. Quarrell ... ..	10	6	0	King George's Fund for Sailors (Main Fund) ... ..	100	0	0
Employees of I.C.I. Metals, Ltd., Birmingham ... ..	50	0	0	King George's Fund for Sailors (Sea Services Sunday) ... ..	100	0	0
W. Lynn Nelson, O.B.E. ... ..	25	0	0	Cunard White Star, Ltd. (tenth donation) ... ..	20	0	0
H. L. Pirie... ..	2	2	0	G. H. Hopewell ... ..	10	10	0
W. H. Allen, Sons & Co., Ltd. (second donation) ... ..	21	0	0	S. W. C. Fleming... ..	9	6	0
Wm. Denny & Bros., Ltd. ... ..	50	0	0				



Donations received from 1st January, 1944 to 24th March, 1944.

	£	s.	d.		£	s.	d.
R. Pendennis Wallis, Ph.D., M.Sc., M.Sc., Wh.Ex. ...	1	1	0	J. Snell ... ..			10 6
J. W. Bruce ... ..	10	6		Yorkshire Copper Works ... ..	26	5	0
W. Mellor (second donation) ... ..	1	1	0	M. J. Booty ... ..			10 6
W. A. Tait... ..	1	0	0	Anonymous... ..	1	1	0
P. A. M. Simpson ... ..	1	0	0	L. D. Trenchard ... ..			1 0 0
F. Turnbull ... ..	12	6		G. R. Hutchinson... ..	100	0	0
Mrs. R. A. Hunter ... ..	1	1	0	H. D. Carter ... ..	2	0	0
F. R. C. Cookson... ..	10	6		J. Robinson ... ..	5	0	0
L. Lang ... ..	1	4	6	H. Barr ... ..			10 6
J. E. V. Hood ... ..	10	0		A. F. Evans ... ..	3	3	0
W. R. George ... ..	10	6		G. R. Hutchinson... ..			15 0
Miss B. E. Homewood ... ..	2	2	0	J. D. Middleton ... ..			10 6
J. H. Galloway ... ..	10	6		R. D. M. McKinlay ... ..	2	2	0
R. H. Gough ... ..	1	1	0	N. Hart ... ..			1 1 0
G. H. Reed ... ..	10	6		B. Stephenson ... ..	10	10	0
W. A. Alton ... ..	2	2	0	Lloyd's Register of Shipping (third donation) ... ..	26	5	0
J. K. Thomas ... ..	10	0		Anonymous... ..	1	10	0

PARTICULARS OF THE CASES ASSISTED BY THE GUILD, from the 1st of January to 31st December, 1943.

Case No.	Age.	Qualification.	Amount of Relief Granted.	Case No.	Age.	Qualification.	Amount of Relief Granted.
			£ s. d.				£ s. d.
1	65	Widow of a former Member of The Institute ... ..	56 0 0	97	72	Widow of Marine Engineer ... ..	32 0 0
3	76	Member of The Institute ... ..	105 15 0	98	76	Marine Engineer ... ..	14 0 0
6	62	Daughter of Marine Engineer ... ..	28 10 0	101	77	Marine Engineer ... ..	42 10 0
8	63	Widow of Marine Engineer ... ..	36 1 0	103	45	Widow of Marine Engineer ... ..	43 8 0
19	87	Widow of Marine Engineer ... ..	27 0 0	104	78	Marine Engineer ... ..	27 0 0
20	78	Marine Engineer ... ..	13 0 0	106	14	Son of former Member of The Institute	21 0 0
34	74	Marine Engineer ... ..	27 0 0	107	57	Widow of Marine Engineer ... ..	17 12 0
44	65	Widow of Marine Engineer ... ..	21 16 0	109	61	Widow of Marine Engineer ... ..	27 0 0
47	63	Widow of Marine Engineer ... ..	12 18 0	114	70	Marine Engineer ... ..	33 10 0
48	47	Widow of Marine Engineer ... ..	13 15 0	117	43	Widow of Marine Engineer ... ..	23 15 0
51	64	Widow of former Member of The Institute ... ..	27 0 0	119	50	Widow of former Member of The Institute ... ..	2 0 0
53	66	Widow of Marine Engineer ... ..	27 0 0	120	54	Marine Engineer ... ..	28 14 0
58	66	Widow of Marine Engineer ... ..	27 0 0	121	69	Widow of Marine Engineer ... ..	28 6 0
72	64	Widow of Marine Engineer ... ..	27 0 0	122	57	Widow of Marine Engineer ... ..	22 0 0
74	63	Widow of Marine Engineer ... ..	19 0 0	123	43	Widow of former Member of The Institute ... ..	72 16 0
77	52	Widow of Marine Engineer ... ..	28 6 0	125	46	Member of The Institute... ..	22 2 0
79	79	Widow (now deceased) ... ..	17 8 0	126	53	Widow of former Member of The Institute ... ..	29 13 0
80	64	Sister of former Member of The Institute ... ..	27 0 0	127	54	Widow of former Member of The Institute ... ..	51 0 0
85	70	Widow of Marine Engineer ... ..	14 0 0	128	72	Widow of Marine Engineer ... ..	8 3 0
88	78	Member of The Institute ... ..	10 10 0				
96	68	Widow of former Member of The Institute ... ..	40 0 0				

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Chamberlain, F. A.  
Champness, G. T.  
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Clark, F. D.  
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Cook, Stanley S., F.R.S.  
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Corns, F. A.  
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Coulthard, J. W., D.S.C.  
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Crichton, W. F.  
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Crompton, T. A.  
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Evans, Dewi G.  
Ewart, W. D.  
Ewing, Peter  
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