

Transactions of the
INSTITUTE of MARINE ENGINEERS

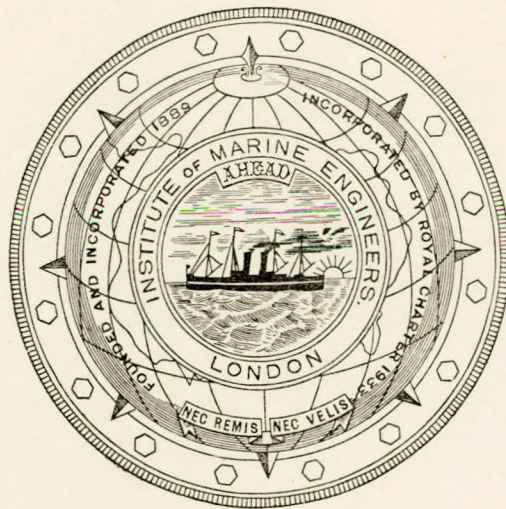
FOUNDED 1889

INCORPORATED BY ROYAL CHARTER, 1933

To Advance the Science and Practice of Marine Engineering

Patron: HIS MAJESTY THE KING

Vol. LXI



1949

President: Rt. Hon. Lord ROTHERWICK

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Held on 28th March 1950

CHAIRMAN: THE RT. HON. LORD ROTHERWICK

The sixty-first Annual General Meeting of the Institute was held in the Lecture Hall of the Institute, 85 Minories, London, E.C.3, on Tuesday, 28th March 1950 at 5.30 p.m. The President, the Rt. Hon. Lord Rotherwick, was in the Chair and was supported by the President-designate (Sir A. Murray Stephen), the Chairman of Council (Mr. A. Logan), the Vice-Chairman of Council (Mr. G. Ormiston), the Honorary Treasurer (Mr. A. Robertson) and the Secretary (Mr. B. C. Curling).

The CHAIRMAN said that he did not propose to make any formal introductory remarks, because there was a good deal of business to be done, and the sooner they got on with it the better. He would like to say, however, how much he regretted not being present at the Annual Dinner this year. He had made all his business arrangements and booked his passage in a ship which was due to get him back in plenty of time for the Dinner, but at the last moment the ship was held up for a fortnight, and he was too late. Luckily, Sir Robert Micklem very kindly took his place, so that what was his own loss was the Institute's gain.

At the request of the CHAIRMAN, the Scrutineers retired to examine the voting papers for the election of Officers and Members of Council.

The SECRETARY presented the Annual Report of the Council (see p. x), reading, as was customary, extracts from the main items of the Report. Referring to the Annual General Meeting of the Education Group, which according to the Report was to have been held in March, he said that it had been found necessary to defer the meeting until 14th April to meet the convenience of the opener of the discussion which was to take place at that meeting.

The HON. TREASURER, in presenting the Annual Financial Statement for the year ended 31st December 1949, read the Auditors' Report:—

"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".

As was customary the Auditors had attached to the accounts their own report which showed clearly increases and decreases in items under income and expenditure, and it was pleasing to note that the gross revenue had increased more than the expenditure by £1,423 1s. 8d.

General expenses and items under rent and rates were not much higher than last year. The other item showing a substantial increase was staff salaries, National Insurance and clerical assistance increased from £4,409 10s. 1d. to £4,681 6s. 4d. an increase of £271 16s. 3d.

The figure for sundries of £592 9s. 2d. included a large

number of small items, as well as Christmas gratuities paid to the staff, also grants to Local sections.

Affiliated subscriptions and contributions to Institutions for Research of £107 17s. 6d. included the following:—

	£	s.	d.
British Electrical and Allied Industries Research Association	31	10	0
Parliamentary and Scientific Committee	17	17	0
British Standards Institution	10	10	0
British Non-Ferrous Metals Research Association	25	0	0
Southern Junior branch I.N.A. and I.Mar.E.	21	0	0

The house account was increased from £943 6s. 6d. to £1,166 6s. 9d., an increase of £223 0s. 3d. This was practically entirely due to the fact that window cleaning and cleaning of the premises had been let out to Contractors at a total cost of £276 16s. 6d. for the year. As a result there was a small reduction in staff wages from £730 10s. 8d. to £652 0s. 11d., a difference of £78 9s. 9d.

Expenditure on repairs shown in the accounts was £834 9s. 5d. although in actual fact the total expenditure incurred during the last year had been £2,560 8s. 5d., out of which an amount of £610 8s. 5d. was unpaid and would be included in the accounts for 1950. It would be appreciated there was a difference here of £1,115 10s. 7d. not shown on the expenditure side, but it was credited in the balance sheet in the sum of £1,000, the reason for this being that this was about the amount (subject to some adjustments) which would be received from the War Damage Commission and the Home Office for effecting repairs to the premises and the removal of blast walls in the old billiard room which was now being used as a council chamber. These figures included the substantial alterations effected in the basement.

The cost of printing the TRANSACTIONS, after deduction of proceeds of sales, was increased from £6,042 0s. 3d. to £6,207 1s. 9d., an increase of £165 1s. 6d.

On the income side, subscriptions had gone up considerably and showed an increase of £1,189 16s. 3d. Entrance fees, however, were slightly down by £129 6s. 11d.

The income from advertisements in the TRANSACTIONS had gone up by £1,051 9s. 9d. There had been, however, an increased cost in printing the advertisements amounting to £114 18s. 3d. which showed a net increased income from advertising amounting to £946 11s. 6d. This was after running a complete year on the new arrangements made with the advertising contractor.

Rent receivable was shown as £128 15s. 0d. against £140 last year. This would disappear entirely for the current year as the whole of the basement was now being used by the Institute.

Interest received showed a substantial increase of £166 11s. 2d. making a total of £1,099 11s. 8d.

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It would be noted also that the hall and library had been hired out more extensively and the income from these amounted to £74 1s. 6d. as against £38 8s. 0d. in the previous year.

Balance Sheet

No-one during 1949 took advantage of becoming a life subscriber, although one had taken advantage of this during the current year.

One of the items of major interest was the profit shown during the year on the sale of the three books, "The Running and Maintenance of Marine Machinery", "Electricity Applied to Marine Engineering" and "Naval Architecture and Ship Construction". These showed a total profit on sales, amounting to £794 9s. 10d.

The most disquieting feature of the balance sheet was shown in the fall in the market value of the gilt-edged securities in spite of the fact that £4,000 had been invested during the past year after £1,000 had been drawn from the Post Office Savings Bank. They stood at a capital value of £34,090 16s. 10d. as compared with £29,928 9s. 8d. last year, but the market value was only £32,006 0s. 0d.

During the year the money spent on new furniture totalled £567 8s. 10d. This furniture had been required mainly in the re-organization of the library (amounting to £263 8s. 5d.) and the secretary's office. There was also quite a considerable value in stocks of the three publications standing in the balance sheet at a total value of £1,886 6s. 1d.

The reserve fund for renewal of premises stood at £7,000.

The balance of revenue account for the year was £1,901 17s. 11d. which, added to the capital account as at 31st December 1949, brought the total value of the capital account as shown in the balance sheet to £40,785 19s. 3d.

Guild of Benevolence

	£	s.	d.
Capital Fund	27,144	17	6
J. H. Silley Memorial Fund	29,008	6	0
Revenue Fund	6,316	9	6
James M. Dewar Memorial Fund	20,121	15	11
	£82,591	8	11

It had taken just five years to clear up the estate of Mr. James M. Dewar and that of his widow. The attached sheets (see p. xl) showed the complete list of securities which were now in course of transfer to the Institute, to be held by them as Trustees for the Guild of Benevolence.

The James M. Dewar Memorial funds, as now invested, produced an annual income of approximately £870, a very substantial increase to the income which the Guild of Benevolence would have for disposal annually. It would enable them to increase materially their activities. He would, of course, be dealing with this fund more fully at the Annual Meeting of the Guild of Benevolence. Mr. John Lamb, who had been presented with the Akroyd Stuart Memorial Award of £50, had donated this sum to the funds of the Guild of Benevolence. The revenue apart from the James M. Dewar Memorial fund which was only just beginning to be felt, had increased from £2,148 to £2,275, an increase of £127. Subscriptions unfortunately showed a decrease, being only £426 as against £482 the previous year.

The total distribution in relief during the past year amounted to £1,786 5s. 3d. an increase of £200 over the previous year. The cost of administering the Guild of Benevolence was £98 14s. 7d. against £148 the previous year. The excess of Income over Expenditure amounted to £390 13s. 0d.

Ground Rents

During the year a portion of the Ryde property had been sold by compulsory acquisition to the local authorities and the sale completed—the ground rent was now fixed at £60 against £70 previously.

Marine Engineers' National War Memorial Fund

At the end of the year this fund stood at £58,337 19s. 7d. an increase during the year of £2,917 17s. 6d. of which £1,486 14s. 6d. was represented by interest on the capital invested.

He was glad to say that since the last appeal was sent out further substantial contributions totalling roughly £6,000 had been received.

It was satisfactory to note that the funds of the Institute were in a very healthy state and such that they would be able to look forward to occupying new premises considerably more commodious than the present building and such as would give scope for still more effective activities than even they had been able to accomplish in the past. As and when they did acquire and move into the new Memorial Building, they would be faced with expenses in some directions much heavier than those existing in the present building.

MAJOR-GENERAL A. E. DAVIDSON, C.B., D.S.O., who moved the adoption of the Annual Report and Financial Statement, said that he had much pleasure in presenting to the commendation of members the Report and Accounts for the year 1949. These were busy days, and not least for the Institute. He was in the fortunate position that although he was called on to move the adoption of the Report and Accounts he did not have to answer the questions which might be raised on any of the items. He would like, however, to draw attention to certain features of the Report.

Membership had continued to grow satisfactorily, the increase being 237, which brought the total over the 6,000 mark, which was a satisfactory situation. Efforts should be directed to enrolling more of the two junior grades, all of whom, it was to be hoped, would later go up into the senior grades.

With regard to the TRANSACTIONS, a very high standard had been maintained in the papers presented to the Institute. Discussions on those papers had been very active and informative, thus indicating the appreciation by members of the good fare set before them. The co-operation with the Institution of Naval Architects should be noted, and so also should the Junior Lectures, which were widespread and of very high quality. The well-merited awards would be presented later by the President.

The effect of the advertising contract had been felt fully for the first time.

Coming next to education, the many aspects of education had received considerable attention from the Education Group. It should be emphasized that without adequate education and training it would not be possible to make the fullest use of the advances in marine engineering made possible by progress in the availability of heat-resisting materials, automatic controls and other aids to economy.

The Local Sections, including the one at Sydney, had been well occupied. Their existence should add to the blood stream of the parent body, so that members would wish them every success. These comments also applied to the Junior Section.

With regard to premises, all members would be glad that they could now resume complete possession of their home. It was a very nice building, and they had every right to be proud of it and to be truly thankful that it escaped entire destruction in the midst of the devastation all around.

Members would have noted the joint conference to be held in 1951. The social side of the Institute had been in no way neglected. Committees and representations amounted to a formidable total.

Finally, he was sure that all the members would feel that a great debt of gratitude was due to the Secretary, Mr. Curling, and his staff for the work which they had done and for their friendly attitude to all those who crossed the threshold of the Institute. It gave him much pleasure formally to move the adoption of the Annual Report and Financial Statement.

MR. A. C. HARDY, B.Sc., who seconded the motion, said that there was little that he could add to General Davidson's

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eloquence. He would like, however, to be allowed to add a few remarks, perhaps of a sentimental nature. There had been talk of the new home of the Institute, the home to which they hoped to go shortly, but he for one had pleasant memories of the present building and of people associated with it going back over a number of years, and he thought that members would not leave it without some pangs of remorse, however practical and beautiful the new building might be. In moving about the world, one always found the Institute spoken of everywhere in terms of the highest praise. He thought that the standard of papers which had been maintained was a matter for congratulation.

The CHAIRMAN invited questions and comments. There being none, he put the resolution to the meeting, and the *Annual Report and Financial Statement* were adopted *nem com.*

The CHAIRMAN then presented the following awards:

Herbert Akroyd Stuart Award 1947-9: Mr. John Lamb, O.B.E.

Denny Gold Medal: Mr. A. W. Davis, B.Sc.

Institute Silver Medal: Lt.-Col. S. J. M. Auld, O.B.E., D.Sc.

Extra First Class Engineer's Certificate Examination—Institute's Award: Mr. E. W. Marshall.

He also announced the following awards, the recipients of which were not present:

The W. W. Marriner Memorial Prize: Mr. E. W. Helby.

Essay Competition Awards: Jacobs, Murdoch and Robertson Award: Mr. H. Nicol.

Denny, Stephen and Inverforth Award: Messrs. K. V. Taylor, B.Sc.(Eng.), H. Sales, and M. O. R. Elms.

The CHAIRMAN next announced the report of the Scrutineers, which showed that the results of the voting were as follows:

President:

Sir Alexander Murray Stephen, M.C., B.A.

Vice-Presidents:

London:

W. D. Heck, B.Sc.

S. N. Kent

H. A. J. Silley

Engineer Rear-Admiral W. M. Whayman, C.B., C.B.E.

Cardiff: C. Moffatt

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

Merchant Navy: G. A. McGregor, O.B.E.

Local Vice-Presidents:

Falmouth: D. Dunn

Bristol: F. Brooke-Smith

Manchester: A. P. Traill, O.B.E., Wh.Ex.

Barrow: G. H. Forsyth, D.Sc.

Greenock: M. McAffer

Aberdeen: W. P. Hunter

Middlesbrough: J. B. Smithson, M.B.E.

Sunderland: W. H. Fraser

Hartlepool: W. E. Loveridge

Vancouver: J. Brydon

Montreal: D. B. Carswell, O.B.E.

Calcutta: D. S. Beattie

Bombay: J. F. James

Sydney: H. A. Garnett

Melbourne: R. Stark

Wellington: L. Hall

Buenos Aires: D. H. Nicholson

Cape Town: Eng'r Com'r A. H. Boyle, D.S.C., R.N.V.R.

New York: J. L. Luckenbach

Antwerp: Lt.-Col. H. J. P. Beliard, D.S.O.

Rotterdam: W. Wilton

Persian Gulf: S. W. H. Gray

Hong Kong: E. Ellison

Singapore: S. A. Anderson

San Francisco: E. Marlborough

Honorary Treasurer:

Alfred Robertson, C.C.

Members of Council:

L. Baker, D.S.C.

R. K. Craig

C. P. Harrison

Eng'r Com'r H. J. Nicholson, R.N.(ret)

S. A. Smith, M.Sc.

Associate Member of Council:

A. C. Hardy, B.Sc.

The CHAIRMAN (Lord Rotherwick) said it only remained for him to hand over his duties as President to Sir A. Murray Stephen. Sir Murray had had a very distinguished career. At Cambridge he graduated with first class honours in the Mechanical Science Tripos. He served in the first World War, was mentioned in despatches, and was awarded the Military Cross. He was a Director of the Steel Company of Scotland. He seemed to have made a corner in being a Past-President; he was Past-President of the Institution of Engineers and Shipbuilders in Scotland and of the Shipbuilding Conference and other bodies, and was Chairman of the British Shipbuilding Research Association.

Personally, he felt that he had a special connexion with Sir Murray, because their two firms had been associated for very many years. He could remember as a small boy, over seventy years ago, being taken to Stephen's yard to see the launching of a Clan ship. Sir Murray's firm actually built the first Clan ship; he did not suppose Sir Murray could remember that! It had a deadweight of 2,900 and a gross of 2,650 tons. In all, Sir Murray's firm built eighteen Clan ships at one time and another, so that he felt that they had a great deal in common to link them together, and that gave him the more pleasure in wishing Sir Murray prosperity and success in his new post for the coming year. (*Applause.*)

LORD ROTHERWICK then vacated the chair and inducted into it the new President, Sir A. Murray Stephen, M.C., B.A.

SIR A. MURRAY STEPHEN, on taking the chair, said how very grateful and honoured he was to be elected President of the Institute. He had been a member of the Institute of Marine Engineers for some time now, and had always had the very highest regard for the Institute; not only was it a great institution but it was a growing one, and growing at a remarkable rate. He hoped that it would long continue to do so. The organization and achievements of the Institute were a cause for great pride on the part of its members.

He would also like to say to Lord Rotherwick how honoured he was in succeeding him as President. Lord Rotherwick had mentioned the links between their families in the past. Personally, he could not remember such an early Clan liner launching as could Lord Rotherwick, but he could remember as a small boy going to the launching of a Clan liner at which Lord Rotherwick's father was taking the principal part as owner, and a very pleasant occasion it was.

He thought that it was a very remarkable gesture on the part of those who framed the constitution of the Institute to make the Presidency alternate between the other branches of the industry, so to speak, and give the shipbuilders and ship-owners a turn at being President of the Institute. The shipbuilders had not reciprocated, but it might have been very good for them if they had. He felt very proud of being asked to come to the Institute, and as a mere shipbuilder, who dealt in half inches and that kind of thing, to come among people who dealt in thousandths of an inch; it was a very elevating experience. He could only assure the members that he would do his very utmost to keep his unfortunate past as a shipbuilder submerged as far as possible, and try to rise to the levels at which marine engineers worked.

He was sure that he would have the indulgence of the

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members in view of the fact that he lived four hundred miles away in the rainy North, and it would not always be possible for him to be present at as many of the functions of the Institute as he would like to attend. However, he would do his best to fill the office, with the powers he had at his command.

The CHAIRMAN, continuing, said that the next item of business was to announce that appointments had been made by the Council to fill casual vacancies which had occurred since the issues of the voting papers, and he asked for the approval of the meeting for the following elections:

Vice-President, Glasgow:

Election of Mr. G. R. Grange, D.S.O., M.C., B.Sc., in succession to Mr. A. R. Riddell.

Vice-President, Royal Navy:

Election of Rear-Admiral(E) W. G. Cowland in succession to Rear-Admiral(E) G. H. H. Brown.

Local Vice-President, Calcutta:

Election of Mr. R. E. Pritchard in succession to Mr. D. S. Beattie.

Local Vice-President, Cape Town:

Election of Mr. I. W. Jones Evans in succession to Eng'r Com'r A. H. Boyle, D.S.C., R.N.V.R.

The above-mentioned elections were confirmed.

MR. A. LOGAN (Chairman of Council), who proposed a vote of thanks to the retiring President, said that over the years the Institute had been very fortunate in the selection of its Presidents. While those of their own cloth, the shipbuilders and engineers, were always welcomed, they were always very pleased to have a shipowner sitting in the chair. Members would recall very well Lord Rotherwick's Presidential Address, which gave a short résumé of the progress of marine engineering as covered by the ships of his fleet, and they were particularly impressed when he emphasized that in his view reliability in service was more important than high ratings and so-called efficiencies. They also learned of the respect which he felt for his own engineer officers, and of the steps which had been taken by his company to improve their conditions of service.

Mr. Logan went on to express the hope that now, having seen the members of the Institute both at work and at play, Lord Rotherwick would appreciate to an even greater extent the pride which they had in their profession and in their Institute. Lord Rotherwick had ably presided at the Conversation, which was a very enjoyable function. He hoped that Lord Rotherwick was satisfied with it. He knew that Lady Rotherwick was pleased, because she asked if she might come again.

During Lord Rotherwick's year of office he had been carrying a heavy load in connexion with his other duties, and it was regrettable that he had not been able to be present at the Annual Dinner of the Institute. However, on that occasion, his predecessor, Sir Robert Micklem, ably deputized for him. At the Annual General Meeting a year ago Sir Robert had been warned that he might be called upon to help the Institute in the future, and that warning had now to be given to Lord Rotherwick.

The members said goodbye to Lord Rotherwick as their President with considerable regret. They thanked him for the willing service he had given them. It was with much pleasure, therefore, that he moved a vote of thanks to the retiring President and asked the Vice-Chairman of Council to second it.

MR. G. ORMISTON (Vice-Chairman of Council) said he had been told that the duty of any Vice-Chairman when seconding a vote of thanks was to enlarge on what his Chairman had said, but unfortunately Mr. Logan had said all that could be said. He had much pleasure in seconding the vote of thanks to Lord Rotherwick for the able manner in which he had carried out his

duties during his year of office. The members hoped that he would not lose touch with them in the future.

The vote of thanks was carried unanimously, with acclamation.

LORD ROTHERWICK, in reply, thanked Mr. Logan and Mr. Ormiston for their very kind words, and gave the assurance that he had had a very happy year as President of the Institute. He had made a number of friends, and he hoped that that number would continue to grow. He would like to thank Mr. Robertson for all his kindness and help throughout the year. He would also like to thank Mr. Curling, who had always been ready to help him and keep him on the straight and narrow path.

The warning which Mr. Logan had given him was one that he had fully expected to hear; the same thing had been said to his predecessor last year. The new President had told him that he would have to take a trip abroad this year. If possible, he would keep him in this country! Although he had ceased to be President of the Institute, he would continue to take the warmest interest in all the doings of the Institute of Marine Engineers, and anything that he could do to further its prosperity and welfare he would do with all his heart. (*Applause.*)

Vote of Thanks to Scrutineers

MR. J. P. CAMPBELL (Member of Council) proposed a vote of thanks to the Scrutineers. He very much regretted, he said, that one of them, Mr. C. J. Hampshire, was absent that evening through indisposition, but was glad to know that he was now making progress towards recovery. He would like to thank Mr. Youldon for stepping into the breach at very short notice and deputizing for Mr. Hampshire. Through being so summarily requested to retire from the room and to proceed with the counting of the ballot papers, the scrutineers had missed quite a lot of the business proceedings, but they did not appear to be unduly perturbed about it, and he would congratulate them on the expedition with which they carried out the duties imposed upon them. He could only say that had the returning officers in the various constituencies carried out their duties with such promptitude at the recent Parliamentary election, the public would not have been kept in suspense for such a lengthy period, awaiting the news that the wrong (or the right) party had been returned.

He had pleasure in proposing that a vote of thanks be given to the Scrutineers, and that they be re-appointed to act for 1950.

MR. F. D. CLARK (Associate) (Member of Council), who seconded, said that he would like to endorse Mr. Campbell's remarks and to add one comment. He noticed that the total corporate membership of the Institute was very nearly 5,000, and he thought that Mr. Campbell was wrong in supposing that the Scrutineers had dealt with all the ballot papers in the last twenty minutes. In any case, he felt that if the whole 5,000 corporate members had submitted their ballot papers it would have needed a far longer time for the Scrutineers, and possibly more Scrutineers. He would therefore like to see the day when either more time was needed for the Scrutineers, or possibly more Scrutineers were appointed.

The vote of thanks was carried unanimously, and Messrs. C. J. Hampshire and G. H. L. Owen were re-appointed Scrutineers for 1950.

Vote of Thanks to Council and Officers

MR. J. E. M. PAYNE (Member) who proposed a vote of thanks to the Council and Officers, said he regarded it as a happy privilege to do so. Drake's maxim was that the gentlemen must "haul and draw with the mariners", and this was where the Council came in, because if the gentlemen were not correctly led they could not haul and draw. When those of the laity, as they might be called, attended the very excellent dis-

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cussions and social activities of the Institute, he thought that they were rather inclined to take for granted the selfless activities of the Council and of their staunch Secretary and his staff, without whose skill, direction, drive and execution those functions could not be held.

They had heard that evening of another instance showing the steady rise in prestige of the Institute, in the Committee set up to advise on the training of marine engineers, a very difficult subject. Gratitude was due to the Council for their continuing interest in the problems of education, in which the Institute took such an active part.

Over the years the finances of the Institute had been jealously guarded by their very active Honorary Treasurer.

A glance back through the past couple of decades showed a steadily broadening field of activities, partly due to the representatives of the Institute on committees dealing with design, materials and education. Some might think that as a nation we were becoming rather too highly organized, but he suspected that the Council of the Institute was playing a very active part in bringing to bear on those committees the practical mind of the professional marine engineer.

Returning for a moment to the papers—which, after all, formed the nucleus of the Institute's activities—he thought that a unique feature of the meetings was the marked freedom of debate, compared, perhaps, with sister institutions.

The Council, with the Secretary, Mr. Curling, and his staff, were directly and indirectly of very great help to the rising generation of young marine engineers, and this good work always went on quietly, unadvertised. They deserved a very due meed of praise.

MR. B. ROGERS (Member) said that he seconded with great pleasure the vote of thanks so ably proposed by Mr. Payne.

One might regard the Institute as a big public company, and all well-run public companies required an able board of directors. The Institute had a very able board of directors. It was a position of distinction to be a Member of the Council, but it also involved very onerous duties for which no remuneration was received. It was with very great pleasure that a member of the Institute could regard the progress which the Institute had made from its inception. Of later years in particular the growth had been tremendous, and most of that was due to the quality of the men who had been attracted to take office as Members of the Council.

He agreed with Mr. Payne that Mr. Curling and his staff should be included in the vote of thanks.

The vote of thanks was carried unanimously, with acclamation.

MR. A. LOGAN (Chairman of Council), replying on behalf of the Council and Officers, expressed his sincere thanks for the appreciation shown of the work of the Council during the past year. His own work, he said, had been made easy by the help and guidance of many senior members of the Council, and he would like in this connexion to record particularly the help which he had received from Mr. Robertson and from Mr. Curling. The Council had endeavoured to keep before themselves the objects and purposes of the Institute as defined in the Royal Charter, and, as had been said, judging by the papers given and the attendances during the last session he felt that the Institute had reached a respected position amongst the scientific societies of this country.

There being no other business, the proceedings then terminated.

Annual Report of the Council

The past year has been another one of full activity for the Institute Council and its many Committees. Of the many developments that have taken place, three are of particular importance: the revision of the Associate Membership examination syllabus (to take effect from 1952); the classification and full indexing of the Library; and the provision of a Council Chamber and a tea room in the basement.

honorary membership of the Institute. Eng'r Capt. W. A. Graham, O.B.E., R.N.R. (Vice-President) has been made an honorary member in recognition of his many years of service to the Institute. This event happily coincides with his completion of fifty years' membership of the Institute.

The membership has continued on the upward path of the last six years and now totals 6,183, a net increase of 237.

The changes in the roll are indicated in the table and chart below:

MEMBERSHIP

H.R.H. The Duke of Edinburgh, K.G., has accepted

Grade	1st Jan. 1949		Transfer		Elected	Died	Resigned	Lapsed	Total 31st Dec. 1949
	From	To	From	To					
Past Presidents	10		1	1			10
Honorary Members	2	1	1				4
Members	3,934	120	248	65	42	82	4,112
Companions	44			5		2	37
Associate Members	391	25	26	2	2	6	428
Associates	1,214	6	173	4	6	9	1,247
Graduates	207	3	21		5	12	199
Students	144	8	17	1	2	3	147
Totals	5,946	154	486	78	57	114	6,184

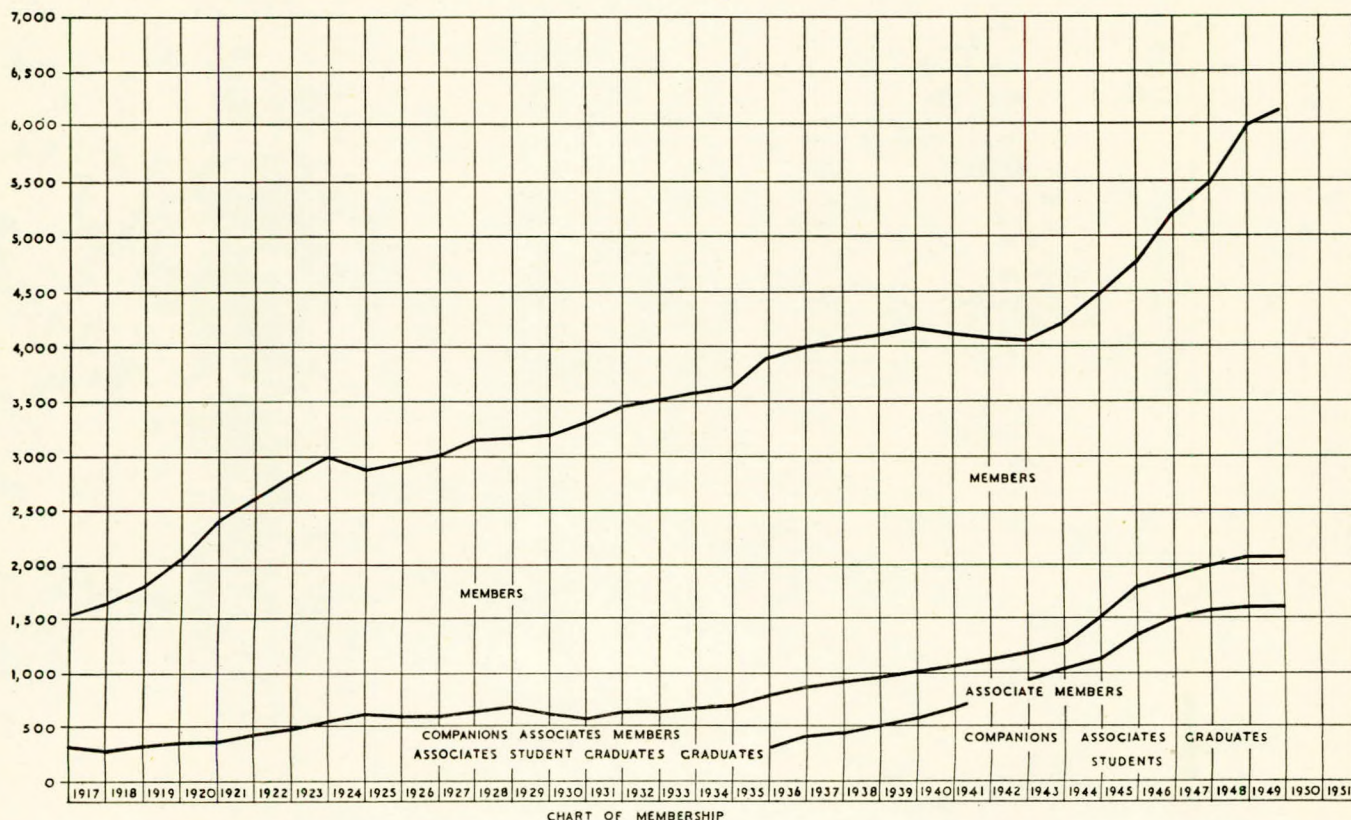


CHART OF MEMBERSHIP

Annual Report of the Council

OBITUARY

Amongst the losses by death recorded throughout the year in the TRANSACTIONS were those of the following, who will be especially remembered for their past services to the Institute:—

R. H. Green (Past President), A. H. Mather (Hon. Vice-President), A. Cross (Member of Council), R. T. Oxburgh (Member of Council), W. G. R. Coates (Local Vice-President) and W. Nithsdale (former Local Vice-President).

PRESIDENT-DESIGNATE

The acceptance by Sir A. Murray Stephen, M.C., B.A., of nomination for election as President for the ensuing session was most gratifying to the Council.

COUNCIL

The Council at their meeting on the 4th April 1949, elected Mr. A. Logan as Chairman of the Council and Mr. G. Ormiston as Vice-Chairman for the 1949-50 session. Mr. R. K. Craig, the immediate Past-Chairman was co-opted to remain on the Council for the session.

At the May meeting Mr. H. R. Humphreys was co-opted to replace Mr. D. Rebbeck, M.A., M.Sc., B.Litt., for the remainder of the session, on the resignation of Mr. Rebbeck. At this meeting the Members of Council retiring (decided by ballot) at the end of the 1949 session were named as follows:—Members: Messrs. J. D. Farmer, S. Hogg, H. R. Humphreys, A. Logan and J. C. Lowrie. Associate Member: Mr. L. J. Fulford.

Vice-Presidents and Local Vice-Presidents

The following appointments to fill casual vacancies have been made by the Council during the year:

West Hartlepool. Mr. W. E. Loveridge was elected Local Vice-President on Mr. W. Nithsdale's resignation due to his leaving the district.

Glasgow. Mr. A. R. Riddell was elected Vice-President on the death of Mr. L. C. Davis.

Bombay. Mr. J. F. James succeeded Mr. T. H. Noel as Local Vice-President upon the latter's removal to Colombo.

Hong Kong. Mr. E. Ellison was appointed Local Vice-President on the death of Mr. W. G. R. Coates.

REPRESENTATION OF THE INSTITUTE ON OUTSIDE ORGANIZATIONS:

Scottish Engineering Students Association

On the resignation of Mr. J. Adam, Mr. I. M. McLachlan was appointed to represent the Institute on the Council of this Association.

Abstracting Services Consultative Committee

On the formation of this committee, which is composed of editors of abstracting journals, Mr. J. S. Robinson, M.A. (Assistant Secretary) was appointed to represent the Institute.

Lloyd's Register of Shipping Technical Committee

Upon the amalgamation of Lloyd's Register with the British Corporation Register, the technical committees of these two societies were also amalgamated. Mr. H. S. Humphreys, the Institute's representative on Lloyd's Register of Shipping Technical Committee, was appointed to serve on the newly constituted body—Mr. W. F. Brown, the Institute's representative on the British Corporation Register Technical Committee retiring.

British Standards Institution

Technical Committee MEE/17 Gears. In view of the activities of this Committee not directly concerning the Institute, it was decided that representation of the Institute should be discontinued.

Technical Committee MEE/84 Diesel Engine Fuel Injectors. Mr. J. Calderwood was appointed the Institute's representative on this Committee.

Technical Committee MEE/81 Standardization of Valves. This Committee's terms of reference have been considerably widened and Mr. Logan as the Institute's representative on the original Com-

mittee has agreed to continue to serve on the new body.

PAPERS AND TRANSACTIONS

The following papers were read and discussed during 1949:—

Date	Title	Author
11th January	*The Non-Destructive Testing of Steel Castings and Forgings	J. Rhodes, B.Sc., T. H. Arnold, F.I.M., and H. S. Peiser.
8th February	The Corrosion of Turbine Journals	S. E. Bowrey, B.Sc., R.N.S.S.
8th March	Trends in the Development in Marine Reduction Gearing	A. W. Davis, B.Sc. (Member).
8th April	*Screw Shaft Casualties	S. Archer, B.Sc. (Member).
10th May	Principles of Diesel Lubrication	Lt. Col. S. J. M. Auld, O.B.E., M.C., D.Sc., and C. Lawrie (Member).
8th November	Boiler Corrosion and Boiler Feed Water Treatment	H. Hillier, O.B.E. (Member).
13th December	Testing of Water-Tube Boilers	R. J. L. Hayden, B.Sc.(Eng.).

* Papers read at joint meetings of The Institution of Naval Architects and the Institute.

The regular publication of the monthly TRANSACTIONS has been continued throughout the year. The paper position has continued to improve, which has enabled a corresponding improvement to be made in the layout and presentation of the TRANSACTIONS. The following papers are the leading items published during 1949:—

Issue	Title	Author
January	Metallizing in Relation to Marine Engineering	J. Barrington Stiles, M.I.Mech.E. (Member).
February	Latest Developments in Reversible Propellers	Professor L. C. Burrill, M.Sc., Ph.D. (Member).
March	The Non-Destructive Testing of Steel Castings and Forgings	J. Rhodes, B.Sc., T. H. Arnold, F.I.M., H. S. Peiser, M.A.
April	Corrosion of Turbine Journals	S. E. Bowrey, B.Sc., R.N.S.S.
May	Trends in the Development of Marine Reduction Gearing	A. W. Davis, B.Sc. (Member).
June	*Marine Engineering in the Royal Navy: A Review of Progress during the last Twenty-five Years Fuel Efficiency in Coastwise Shipping and the Trawling Industry	Eng'r Vice-Admiral Sir John Kingcome, K.C.B. (Member). G. H. Barnard.
July	Principles of Diesel Lubrication	Lt. Col. S. J. M. Auld, O.B.E., M.C., D.Sc., and C. Lawrie (Member).
August	†Qualifications for Professional Engineering Institutions	Commander(E) A. F. Smith, R.N. (Member).
September	A Marine Engineer's Review of Technical Information and Library Services Some Interesting Examples of Geared Diesel Drives	H. P. Weymouth (Member).
October	‡Economic Selection of Steam Conditions for Merchant Ships	Douglas C. Mac-Millan, and Mark L. Ireland.

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Issue	Title	Author
November	‡ Automatic Steering of Ships by Proportional Control	Leonard I. Schiff, and Marvin Gimp-rich.
December	Presidential Address	The Rt. Hon. Lord Rotherwick (President).
	Heart of a Tanker	H. Nicol (Graduate).
	Diesel Driven Heat Pump Evaporator	S. B. Jackson (Member).

* Thomas Lowe Gray Lecture, I.Mech.E. Reprinted by permission.

† Education Group Discussion.

‡ Soc.Nav.Arch. and Mar.Eng., New York. Reprinted by permission.

Members are reminded that their copies of the TRANSACTIONS may be returned to the Institute for binding or, alternatively, a bound volume can be supplied in addition to the loose monthly issues. These volumes are provided only against a standing order.

A new advertising contract has been entered into with Messrs. T. G. Scott and Son, Ltd., at a reduced commission rate.

OTHER INSTITUTE PUBLICATIONS

The three books published by the Institute—"The Running and Maintenance of Marine Machinery", "Electricity Applied to Marine Engineering" and "Naval Architecture and Ship Construction" have continued to be in demand. This has necessitated further reprints of the two first mentioned publications.

EDUCATION GROUP

The Ninth Annual General Meeting of the Education Group was held at the Institute on the 27th May 1949, when Messrs. T. W. Longmuir and R. S. Hogg were elected Chairman and Vice-Chairman respectively of the Group and the Executive Committee for the following year.

At this meeting it was agreed that the Annual General Meeting of the Group should be brought forward to March and that Rule 5 of the Group be suitably amended. This was in order that the proceedings of the Annual General Meeting could be published in the Annual Report of the Institute.

Following this meeting there was a discussion on "The Training of Engineers for Sea-Going Service in the Merchant Navy", opened by Mr. A. Logan, Chairman of Council.

The revision of the Associate Membership Examination Syllabus has now been completed and the necessary consequent modifications to the By-laws await approval of the corporate members, and subsequently of the Privy Council.

NATIONAL CERTIFICATE IN NAVAL ARCHITECTURE AND MARINE ENGINEERING

An *ad hoc* committee of four has considered this problem in much detail and arising out of their deliberations the following scheme has been endorsed by the Council of the Institute and the Institution of Naval Architects and forwarded to the Institution of Mechanical Engineers and the Worshipful Company of Shipwrights for consideration with a view to adoption:

"The Joint Committee of the Institution of Naval Architects and The Institute of Marine Engineers have had under consideration the question of broadening the educational curriculum of apprentices in the Ship Building and Ship Repairing Industries.

"As Part-time Day Release of these apprentices is, or shortly will be, general, the Committee consider that those training to become Marine Engineers should obtain a fundamental knowledge of Naval Architecture and those training to become Naval Architects should have Heat Engines included in their syllabus.

"The Council of the Institution of Naval Architects and the Council of the Institute of Marine Engineers

request that the Institution of Mechanical Engineers accept the subject of Naval Architecture for supplementary Endorsement on the Ordinary National Certificate in Mechanical Engineering and that such Endorsement should be granted to a holder of that certificate provided he has taken a course approved by, and passed an examination assessed at Ordinary National Certificate level by, the Worshipful Company of Shipwrights.

"A similar request is being sent to the Worshipful Company of Shipwrights that they accept the subject of Heat Engines for supplementary Endorsement on the Ordinary National Certificate in Naval Architecture and that such Endorsement should be granted to a holder of that certificate provided he has taken a course approved by, and passed an examination assessed at Ordinary National Certificate level by, the Institution of Mechanical Engineers; this Endorsement to be counter-signed by the Institute of Marine Engineers.

"These proposals would not conflict with existing Ordinary National Certificate courses. The additional subject at S.1 level would commence at the normal S.2 year—therefore the candidate would sit for his Endorsement one year after obtaining his Ordinary National Certificate.

"These additional supplementary endorsements would not affect any scheme already approved under Ministry of Education Rules 105 and 106 relating to National Certificates, Sections 4, 5, and 6".

Replies to these proposals are awaited.

Junior Lectures

The following lectures were arranged during the year by the Education Group Executive Committee:—

- 20th Jan. at Swansea Municipal Technical College. "Modern Marine Diesel Engines", by J. Calderwood, M.Sc.
- 21st Jan. at Falmouth Technical Institute. "The Importance of Scientific Training for the Young Marine Engineer", by J. Paley Yorke, M.Sc.
- 25th Jan. at Woolwich Polytechnic. "Non Ferrous Metals in Marine Engineering", by G. T. Callis.
- 2nd Feb. at Cardiff City Technical College. "The Combustion Turbine", by J. Calderwood, M.Sc.
- 8th Feb. at Sunderland Municipal Technical College. "Photo Elasticity", by J. Ward, Ph.D., B.Sc.
- 11th Feb. at Gravesend Technical Institute. "Launching of Ships", by R. S. Hogg.
- 15th Feb. at James Watt Technical Institute, Greenock. "The Combustion Turbine", by J. Calderwood, M.Sc.
- 16th Feb. at Merchant Venturers' Technical College, Bristol. "Marine Engine Room Auxiliaries", by J. E. M. Payne.
- 17th Feb. at Poplar Technical College. "Steam Generation for Power Stations". Film entitled "Combustion", and talk by A. G. Crouch.
- 9th March at Liverpool City Technical College. "Air Conditioning for Ships", by J. K. W. MacVicar.
- 11th March at Northampton Polytechnic. "Precision Measurement", by J. Loxham.
- 18th March at Barrow-in-Furness Technical College. "Operation of Marine Steam Turbines", by G. H. Forsyth, D.Sc.
- 30th March at Belfast College of Technology. "The Future of Steam for Marine Propulsion", by Capt.(E) Gregson, M.Sc.
- 19th Oct. at West Hartlepool Technical College. "The Combustion Turbine", by J. Calderwood, M.Sc.
- 27th Oct. at the Medway Technical College, Gillingham. "Launching of Ships", by R. S. Hogg.
- 10th Nov. at Acton Technical College. "Marine Engine Room Auxiliaries", by J. E. M. Payne.
- 15th Nov. at Poplar Technical College. "Launching of Ships", by R. S. Hogg.

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- 18th Nov. at West Ham Technical Institute. "The Combustion Turbine", by J. Calderwood, M.Sc.
18th Nov. at Belfast College of Technology. "Photo Elasticity", by J. Ward, Ph.D., B.Sc.
25th Nov. at Liverpool Technical College. "Photo Elasticity", by J. Ward, Ph. D., B.Sc.
29th Nov. at Dartford Technical College. "Steam Generation for Power Stations", by A. G. Crouch.
8th Dec. at Sir John Cass Technical Institute. "Precision Measurement", by S. Broatch, B.Sc.
8th Dec. at Cardiff Technical College. "The Future of Steam for Marine Propulsion", by Capt.(E) W. Gregson, M.Sc.
8th Dec. at Wandsworth Technical College. "The Combustion Turbine", by J. Calderwood, M.Sc.
13th Dec. at Watt Hall, Kelly Street, Greenock. "Modern Inspection Technique", by S. Broatch, B.Sc..
15th Dec. at Southampton University. "The Combustion Turbine, by J. Calderwood, M.Sc.

SUPERINTENDENT ENGINEERS COMMITTEE

Arising from a discussion concerning the responsibility of this committee to the Council, it has been agreed that the committee shall be re-styled "Advisory Committee of Superintendent Engineers" and it shall act in an advisory capacity to the Council whenever required to do so. It is not a committee of the Institute as such, but its constitution will be similar to that of the original committee.

TRAINING OF SEA-GOING ENGINEERS

A special committee of three has been set up and has considered this problem in detail. Resulting from this committee's deliberation a letter, signed by the President, has been sent to the Ministry of Transport setting out the Institute's suggestions for the solution of this problem as follows:—

"Sir Gilmour Jenkins, K.C.B., K.B.E., M.C.,
Permanent Secretary to the Ministry of Transport,
Berkeley Square House,
London, W.1.

"Sir,

The Council of this Institute are deeply concerned at the increasing difficulty of maintaining the supply of engineers who have received a technical training of a standard which will enable them to fill adequately the frequently recurring vacancies in the fleets of many shipping companies.

"The problem has been carefully investigated by a special committee appointed by the Council, and this committee's report and recommendations were submitted to the Council at their October meeting.

"After thorough consideration the Council agreed that I should be asked to forward to your Ministry the following recommendations, with an expression of the Council's opinion that the adoption of the measures therein proposed would in due course largely solve the present serious problem.

"The Council's recommendations are:—

- 1 (a) that paragraph 15 of the 'Ministry of Transport Regulations relating to the Examination of Engineers in the Mercantile Marine, Exn. 1.a' be so interpreted that the entrants who have been apprenticed with firms not classed as marine establishments should be given an opportunity of going to sea as junior engineers on the completion of four years' apprenticeship in general engineering, provided they have received technical education up to the Ordinary National Certificate standard at an educational establishment which has been approved under the scheme of counter-signature for Marine Engineering by the President of the Institute of Marine Engineers. Should an entrant not have reached the above standard, he should be allowed to take a full-time course of

six months' duration approved by the Ministry of Transport and the Institute of Marine Engineers at an approved technical college.*

- (b) that the provisions laid down in paragraph 14 of the M. of T. Regulations above-mentioned be extended to allow apprentices who have served three years in approved workshops and have reached Ordinary National Certificate standard of technical education to proceed to sea as Assistant Engineers. The Committee proposes that these entrants be allowed to sit for their Second Class M. of T. Certificate of Competency after two years' qualifying sea service.

"The Council suggest that the above recommendations, if adopted, should be subject to review after two years' trial period. The adoption of recommendation 1 (b) is suggested as a short-term policy and only during the present acute shortage of engineers.

- 2 That in addition to the present system of intake of junior marine engineers as set out in M. of T. Regulations, Exn. 1.a, paragraphs 14-17 inclusive, a scheme based on paragraph 19 of those Regulations be instituted on the following lines:—

Youths of the ages of 16 to 17 years who have reached a satisfactory educational standard to be enrolled by a shipping company or by a shipowners' organization for a 4½-years sandwich course of training as a marine engineer, consisting of alternative periods of six months' full-time attendance at a recognized technical college* and at a works of the description specified in paragraph 14 of the above Regulations.

The course of training would consist of five college sessions with four sandwich works sessions, and would cover ground for the requisite two years' essential basic craft training, plus a technical educational standard of not less than Higher National Diploma.

It is suggested that the cadets be given an opportunity of obtaining watch-keeping experience at sea during vacation periods.

* As listed in Appendix E of the above-mentioned Regulations.

I am, Sir,

Yours faithfully,

(Signed) Rotherwick
President."

This is now being considered by the Ministry.

JUNIOR SECTION

Three dances have been held during 1949, on the 26th February, 15th October, and the 10th December.

In addition a film show was arranged for the 20th October. The attendance at this function was extremely disappointing and it is hoped that the junior members will in future be able to take a more active part in the functions arranged for their benefit.

LIBRARY

During the course of the year the organization of the Library has been completely overhauled. A complete subject index has been compiled and in addition the Library has been classified under the Universal Decimal Classification system.

The Reading Room and Library have been combined within one room consequent upon certain other alterations on the premises (see Premises).

The Council take this opportunity of expressing their thanks to all who contributed book reviews during the current year.

SOUTHERN JUNIOR BRANCH, I.N.A. AND M.I.MAR.E.

The 1948-49 Session was a very successful one for the Branch and was notable for the advent of the Branch TRANS-

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ACTIONS. The original plan was to publish annual TRANSACTIONS, but as this involved too great an outlay of money, with nothing to indicate what the sales would be, this plan was discarded in favour of publishing monthly TRANSACTIONS, having two papers per issue. This two paper issue was to continue until all the papers read before the Branch had been published, and then to change to a one paper issue. Having solved the financial difficulties, the Council were very reluctant to reduce the standard of the TRANSACTIONS, so that, as only one paper is read each month, the TRANSACTIONS in future will be published every two months. Another important factor governing this decision is the amount of work involved in publishing such an issue every month—the editing, the preparation of diagrams and script, and the compiling, binding and distribution of 200 copies of about 20 pages each.

The present circulation of approximately 200 is very encouraging, and far in excess of the original estimate; the Council hope that members will continue to support the Branch by maintaining and, where possible, increasing the sales. Members will be pleased to know that enquiries for the TRANSACTIONS have been received from America, China, Norway and other European countries.

The standard of papers and the attendance at meetings have been quite satisfactory, although a greater proportion of papers from junior members would have been desirable. An interesting feature of last year's meetings was the discussion of papers by members, which was so lacking in the earlier meetings.

The following meetings have been held:—

- 30th Sept. 1949 "Factors of Safety", by S. F. Dorey, C.B.E., F.R.S., D.Sc. (President).
21st Oct. 1949 "Launching of Ships", by R. S. Hogg.
18th Nov. 1949 "Industrial Relations and Joint Conciliation Machinery", by D. G. Bolton.
Dec. 1949 "Fish Propulsion in Relation to Ship Design", by R. W. L. Gawn, O.B.E., R.C.N.C.
Dec. 1949 "Revised Lloyd's Rules for Steel Ships", by R. B. Shephard, O.B.E., B.Sc.

The Council were fortunate in obtaining permission for the Branch to visit the Admiralty Experiment Works at Haslar, and forty-five members took advantage of the opportunity to visit this very interesting establishment.

LOCAL SECTIONS

The Local Sections, including the newly formed one at Sydney, Australia, have had a busy year of meetings and other functions. A brief report of their individual activities is given below.

Cardiff. The following events have taken place during the year:—

- 2nd February. Mr. J. Calderwood delivered a lecture on "The Combustion Turbine" at Cardiff City Technical College.
4th April. Mr. J. E. Church delivered a lecture on "The Motor Liner *St. Essylt*" at the Lecture Theatre of the South Wales Institute of Engineers, Park Place, Cardiff.
26th September. The Annual Meeting was held at the South Wales Institute of Engineers, when the following officers were elected for the ensuing year:—
Chairman: J. E. Church
Hon. Secretary: P. L. D. Thomas
Treasurer: G. Thomas
Committee: Ivor J. Thomas (Vice-President), F. Heslop, Colin Moffatt, H. S. W. Jones, H. J. Hobart, A. H. Abraham, I. Blackmore, J. Buchanan, T. G. Thomas, A. J. Cant, F. F. Richardson, D. Skae.

21st October. The First Annual Dinner of the Cardiff and District Local Section was held at the Royal Hotel, Cardiff.

Swansea. The following events have taken place during the year:—

- 20th January. Mr. J. Calderwood delivered a lecture on "Marine Diesel Engines" at Swansea Technical College.
24th March. Mr. K. C. Rockey, M.Sc., read a paper on "Modern Methods of Stress Analysis" at Swansea Technical College.
5th May. The Annual Meeting was held at Mackworth Hotel, Swansea, when the following officers were elected for the ensuing year:—
Chairman: W. E. Johnstone
Hon. Secretary: M. W. Henderson
Hon. Treasurer: R. E. Knowles
Committee: H. F. H. Dolling, A. R. Edmiston, K. C. Rockey, M.Sc., W. E. Johnstone, C. E. Cloudsdale, B.Sc.
22nd June. Visit to the National Oil Refineries at Llandarcy.

Sydney. The following events have taken place during the year:—

- 18th January. A Dinner to welcome the President of the Institute, Commander Sir Robert Micklem, C.B.E., R.N.(ret), was held at Petty's Hotel, Sydney.
20th July. Lecture by C. R. Bickford on "Modern Port Developments in Particular Reference to Sydney".
16th November. Dinner at the Carlton Hotel. (Following a visit to the new P. and O. liner *Himalaya* on the 10th November.)

INSTITUTE AWARDS

Herbert Akroyd Stuart Award 1947-9. This award, value £50, made biennially, was awarded to Mr. John Lamb, O.B.E., for his paper entitled "The Burning of Boiler Fuels in Diesel Engines".

Denny Gold Medal. The award of this medal has been made to Mr. A. W. Davis, B.Sc. (Member) for his paper "Trends in the Development of Marine Reduction Gearing", read on the 8th March 1949.

Institute Silver Medal. This medal, for the best paper contributed by a non-member of the Institute, has been awarded to Lt. Col. S. J. M. Auld, O.B.E., D.Sc. and Mr. C. Lawrie for their joint paper "Principles of Diesel Lubrication", read by Col. Auld on the 10th May 1949.

The W. W. Marriner Memorial Prize, value £5, for the best Engineering Knowledge scripts written by a candidate in the Ministry of Transport's 1949 examination for the Second Class Engineer's Certificate of Competency, has been awarded, on the recommendation of the Ministry's Chief Examiner of Engineers, to Mr. Edward Withy Helby.

In connexion with the above award, a consolation prize, value £2 2s., has been presented by an anonymous donor to Mr. Robert Law Birney.

Extra First Class Engineer's Certificate Examination—Institute's Award. The Institute's medal for the candidate obtaining the highest marks for the examination in 1949 has been awarded to Eric William Marshall.

Essay Competition Awards. The full award of £20 from the combined Jacobs, Murdoch and Robertson Award Funds has been made to H. Nicol (Graduate) for his essay "Some Interesting Points on Lubrication".

Awards from the Denny, Stephen and Inverforth Award Funds of £10 to K. V. Taylor, B.Sc.(Eng.) (Graduate), £5 to H. Sales (Associate Member) and £5 to M. O. R. Elms (Associate) were made respectively for their essays "Propeller Cavitation", "Pass-out and Back Pressure Turbo-generators", and "A War-time Diesel Electric Layout"

Institute Prizes for the study of Heat Engines

The Institute's annual prizes, value two guineas each, to

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students who accomplish the best year's work in heat engines at technical colleges and schools in marine centres were awarded as follows:—

Angus Brown, Technical School, Greenock.
Kenneth David Caset, Plymouth and Davenport Technical College.
James D. W. Cox, Technical College, Dundee.
Eric William Day, College of Technology, Liverpool.
Gordon Hardy, Kingston-upon-Hull Municipal Technical College.
George Johnstone Kerr Harris, Royal Technical College, Glasgow.
Eric Williams Hewitt, Belfast College of Technology.
Frank Thomas Hill, South-West Essex Technical College and School of Art.
Derrick Jones, Cardiff Technical College.
Gerard Michael Jordan, Birkenhead Technical College.
Peter Charles Kilby, South East London Technical College.
William Patrick Lawler, The Woolwich Polytechnic.
Alan Alfred Lilley, The Polytechnic, Regent Street, W.1.
Clifford James Norbury, The University College, Southampton.
Thomas Raymond Turnbull, Gateshead Technical College.
James Wardle, Sunderland Technical College.
William Watt, Robert Gordon's Technical College, Aberdeen.
William Wong, Poplar Technical College.
Eldred David Geen, Swansea Technical College.
Alan Stewart Lee, Rutherford College of Technology, Newcastle-on-Tyne.
George Frederick Craggs, West Hartlepool Technical College.
James Frederick Valentine Elrick, Marine School of South Wales.
Brian Dunston Wookey, West Ham Municipal College.
D. A. M. Clark, Constantine Technical College, Middlesbrough.
J. F. Hughes, Technical Institute, Falmouth.
M. J. Smith, Portsmouth Municipal College.

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

The Institute's annual prize, value two guineas, for excellence in marine engineering was won by Cadet P. N. L. Padfield.

INSTITUTE EXAMINATIONS

Associate Membership Examination. Ten candidates entered for Section A or B of the Examination. J. W. Utting (London) passed Section A; T. E. Hannan and L. Morris (London) passed Section B; R. Morrison (Glasgow) passed in Marine Engineering Knowledge, thus completing the requirements for Associate Membership. N. S. Fowler (London) and J. R. Bonner (Sunderland) passed in Marine Engineering Knowledge. R. S. K. Moorthy (Vizagapatam) passed in Properties and Strength of Materials.

Common Preliminary Examination (for Studentship). All students elected during the year were admitted by exemption, with the exception of Y. S. Rawat (Bombay) who passed the April Examination.

REMEMBRANCE DAY, 1949

Mr. W. Sampson, Past Chairman of Council, represented the Institute at the Remembrance Day service at Westminster Abbey on Sunday the 6th November and Mr. G. Ormiston, Vice-Chairman of Council, laid the Institute's wreath at the Mercantile Marine Memorial at Tower Hill.

MAUDSLAY PORTRAIT

The Maudslay Portrait, formerly hung in the Lecture Hall, has been taken over by the National Maritime Museum, who have undertaken its restoration.

PREMISES

During the past year the outstanding war damage repairs have been completed. There has also been a re-arrangement of office accommodation, which has included the transfer of the Secretary's office to the old Reading Room and the amalgamation of the Reading Room and Library within the confines of the Library. On the cessation of the letting of the basement, this has been reconstructed to provide a Council Chamber and tea annexe, machine-room and an improved store-room.

The cleaning of the premises is now being carried out under contract.

STAFF

The resignation of Mrs. Thorogood, junior clerk-typist took place in September and Miss P. J. Mills was appointed in her place. The latter's appointment was terminated in November.

MARINE ENGINEERS' NATIONAL WAR MEMORIAL BUILDING

A further appeal is being launched for the Memorial Building Fund which it is hoped will close the gap between the present total of subscriptions and the desired sum of £125,000.

CO-OPERATION WITH THE INSTITUTION OF NAVAL ARCHITECTS

Co-operation with the Institution of Naval Architects has continued throughout the year. Joint meetings were held on 11th January 1949 when a paper by J. Rhodes, B.Sc., T. H. Arnold, F.I.M., and H. S. Peiser, on "The Non-Destructive Testing of Steel Castings and Forgings" was read and discussed, and 8th April 1949, when a paper by S. Archer, B.Sc., entitled "Screw Shaft Casualties" was read and discussed.

A dinner of the two Councils was held at Grosvenor House on the 1st December, which was much enjoyed by all who attended.

INTERNATIONAL CONFERENCE OF NAVAL ARCHITECTS AND MARINE ENGINEERS

Arrangements are being made for an International Conference of Naval Architects and Marine Engineers to take place in 1951 concurrently with the Festival of Britain. This conference is being convened jointly by the Institute and the Institution of Naval Architects with the co-operation of the North East Coast Institution of Engineers and Shipbuilders and the Institution of Engineers and Shipbuilders in Scotland.

A Sub-Committee of the Joint Committee of the I.N.A. and I.Mar.E., has been formed consisting of

I.N.A.	I.Mar.E.
Sir Stanley V. Goodall	Mr. W. Sampson
Mr. J. Turnbull	Mr. A. Robertson
Captain A. D. Duckworth	Mr. B. C. Curling

to organize the proceedings.

SOCIAL EVENTS

The Sixtieth Anniversary Dinner was held at the Connaught Rooms on Friday, 11th March and the Annual Conversazione was also held at the Connaught Rooms on Friday, 2nd December.

The Annual Golf Competition was held at Chigwell Golf Club on the 20th May, when the Institute cup was won by Mr. H. R. Humphreys.

The Autumn Golf Competition was likewise held at Chigwell on the 21st October.

REPRESENTATIVES' REPORTS

Northern Advisory Council for Further Education: Advisory Committee for Engineering. Representative: G. E. Jenkins.

The new Advisory Committee met for the first time on 22nd March 1949. Two meetings of the Committee have been held. Consideration has been given to a suggestion made by The Southern Regional Council for Further Education that National Craftsmen's Certificates should be instituted for apprentices who would make good craftsmen but have not a

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high standard of general education and academic ability. A scheme of this type is already in operation for the motor industry. The Committee agreed in general with this proposal.

The National Certificate schemes in Mechanical and Electrical Engineering have been in operation for twenty-five years. Consideration has been given by the Committee to the Report of the Conference on National Certificates in Engineering convened by the Regional Examining Unions. This Conference arose out of criticisms regarding the rather narrow training which is given in part time evening classes for National Certificates in Mechanical and Electrical Engineering. It is said that the mechanical engineer does not gain sufficient knowledge of electrical engineering, and *vice versa*, and neither obtains a broad enough training in fundamental science.

The Conference report suggested that all engineering students should have the same basic training for three years and should then be eligible to sit for a common Ordinary National Certificate. After a further two years' study in a specialized branch the student would be eligible to sit for the Higher National Certificate.

Whilst the Advisory Committee agreed that broadening of the training was desirable, it was of the opinion that such broadening could be achieved within the framework of the present schemes and it was not in favour of superseding a National Certificate scheme which had worked well over twenty-five years and on the whole had commanded the confidence of industry.

The Advisory Committee, therefore, does not favour the proposed scheme at the present time, and is of the opinion that the existing schemes should be continued, and should be adapted from time to time as required.

L.C.C. School of Engineering and Navigation Advisory Committee. Representative: W. Sampson.

Following a change in the status of the Advisory Committee into a Board of Governors for the L.C.C., Mr. Sampson was elected Chairman of the new Board.

Joint Committee on Materials and their Testing. Representative: W. J. Ferguson, M.Eng.

A Conference was held on 16th February 1949, the subject being the "Pre-stressing of Concrete". The proceedings of the Conference have been published and a copy forwarded to the Institute.

Subjects under review for future discussion are:

- Fatigue of Metals
- Wear Resistance
- Photo-elasticity
- Heat-insulating Materials.

Lloyd's Register of Shipping Technical Committee. Representative: H. S. Humphreys.

The revised rules for petroleum tankers and for pumping and piping have now been approved.

Scottish Engineering Students Association. Representative: I. M. McLachlan.

The work of the Association continued in both Glasgow and Edinburgh, a full programme of meetings and visits having been carried out successfully.

The Abstracting Services Consultative Committee. Representative: J. S. Robinson, M.A.

The formation of this Committee was in accordance with recommendation 61 of the Royal Society's Scientific Information Conference held in July 1948 that the Royal Society should be invited to approach abstracting agencies with a view to constituting a standing committee on abstracting, composed of representation from bodies publishing abstracts. Such a committee was to be consultative and to have as its object the promotion of co-operation. Invitations to join such a committee were accordingly issued by the Royal Society's Information Committee to editors and directors of the larger abstracting

organizations, among which the Institute was included, in Great Britain, the Dominions, and the U.S.A. The Assistant Secretary was appointed to represent the Institute on this committee.

The Committee has now been in existence for one year and has already accomplished some of the tasks for which it was intended.

By bringing together editors and others involved in conducting abstracting organizations it has fostered mutual understanding and acquaintance and allowed for informal exchanges which have been of considerable importance. It has also undertaken more concrete tasks. One of the difficulties has been in determining which fields of science are well served by existing abstracting organizations and which fields are neglected. No list of abstracting organizations functioning in Great Britain was available. The Committee has therefore compiled a list as complete as possible of all British abstract journals, and scientific periodicals containing more than 200 abstracts a year (available in the Library). This list was published by the Royal Society in June 1949 under the title "A list of periodicals and bulletins containing abstracts published in Great Britain". At present there are no less than 129 abstract journals published in the United Kingdom; 56 of these began publication in the last decade.

Another question on which the Committee has been able to take positive action is that of the use of authors' summaries as abstracts. In some countries abstracting organizations have been content to use the summary of the paper given by the author at the end of his communication. The consensus of opinion at the Royal Society's Scientific Information Conference and also that of the Abstracting Services Consultative Committee is that authors' summaries are at present unsatisfactory for use as abstracts. It is felt, however, that these summaries could be greatly improved, and then, if desired, they could be used by an increasing number of abstracting services. As the production of abstracts is a very costly proceeding, such use of authors' summaries would not only reduce costs but decrease the delay in publishing abstracts. The Abstracting Services Consultative Committee has therefore asked that the practice of many journals which print summaries together with papers should be extended, and that these synopses should be refereed and edited as carefully as the full paper. Such synopses could then be used by any abstracting organization which wished to do so. A short statement of the points to be emphasized in a synopsis, for the benefit of authors of papers and also editors, was drawn up and submitted to the Royal Society's Information Services Committee, which recommended to the Royal Society that it should issue this "Guide for the preparation of synopses", so that editors could then send it to their contributors. Editors of a number of the leading scientific journals have agreed to co-operate by publishing such synopses.

Investigations are being carried out by the Committee on the layout of abstracts and the amount of information which it is desirable that they should give. It is hoped that by this means a standard layout will be attained and that scientists using different abstracting periodicals will find the same system for reference in each. This would avoid much confusion and would greatly facilitate the interchange of abstracts between different organizations.

The possibility of setting up a bureau of scientific indexing is also being examined. Such a bureau would undertake the indexing of abstract journals and of periodicals publishing original scientific papers.

On 20th June 1949, Unesco convened an international conference on science abstracting under the presidency of Dr. A. King. At the conference Unesco officials proposed the setting-up of a permanent bureau, with the necessary staff, to co-ordinate all scientific abstracting on an international level. This proposal had been considered by the Abstracting Services Consultative Committee, who put their views before the Royal Society's Information Services Committee. The three national delegates were then briefed by the Royal Society.

At the conference the idea of a permanent bureau was con-

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sidered premature, as at the moment there would be little for the bureau to co-ordinate. The conference made two important recommendations, however. They suggested that (1) other groups of scientists, such as mathematicians and physicists, might care to set up co-ordinating committees on abstracting on the lines of that already established for the medical and biological sciences, and that (2) consultative committees consisting of editors and others responsible for abstracting organizations should be set up on a regional basis. In addition it was suggested that a channel of liaison or a clearing house between these committees should be supplied by Unesco, which would have an advisory committee to decide on further developments at the international level.

Apart from the question of collaboration with similar committees set up in other countries, there remains much work for the Abstracting Services Consultative Committee to perform in implementing fully the recommendations of the Royal Society's Scientific Information Conference. In addition, the Committee is already serving and will, it is hoped, continue to serve as a centre for the discussion and, wherever possible, the practical application of all ideas which can facilitate the dissemination of scientific knowledge.

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

The First Annual Meeting since the incorporation of the British Society for International Bibliography with the Association was held on the 19th August 1949, when the new Council and Officers were elected. Among the various important activities in which the Association is engaged or has under consideration, the formation of a central index to the location of translations of scientific and technical material may be mentioned as being of special interest to research workers. The Association's Information Section, Translators' Panel, and Library have all been kept fully occupied during the year, and the regular issue of the Journal of Documentation and Aslib Proceedings has been maintained. Copies of the first-named publication are available in the Institute Library. The Association's impending removal to more commodious premises at 4 Palace Gate, W.8, should (to quote the retiring Director) "mark the beginning of Aslib's full maturity as a centre of specialized information and documentation".

Engineering Joint Examination Board. Representatives: F. H. Reid, B.Sc. and R. F. Thompson, B.Sc.

The Common Preliminary Examinations were held in April and October.

There were 271 entries for the April series and of the 255 candidates who attended, 113 sat for the whole examination and 35 passed; 37 were referred in one or two subjects. Of the 142 who had been referred in one or two subjects on the results of previous examinations, or who had been entered for one or two subjects at the request of constituent institutions, 82 passed, 46 failed, and 13 were referred.

Of the 95 candidates who entered for the October 1948 Examinations abroad, 73 sat, 29 passed, 28 failed, and 16 were referred.

For the October 1949 examination, there were 204 candidates, of whom 189 attended, 68 took the whole examination, 29 passed, 9 were referred; 121 sat for one or more subjects, and of these 71 passed and 5 were referred.

Since the examinations were first held in April 1941, there have been 2,099 candidates for the April examinations and 2,023 candidates for the October examinations, making a total of 4,122 candidates and, up to June 1949, the total number of exemption certificates received from constituent institutions is 8,229.

The Committee of Moderators recommended that the General Certificate of Education (1951) be accepted provisionally as entitling the holder to exemption from the Common Preliminary Examination on a "subject for subject" basis at the

Ordinary Level but that the position be reviewed later on in the light of experience gained.

The syllabus of the subject English has been revised.

The British Electrical and Allied Industries Research Association: Joint Committee: Steels for Use at High Temperature. Representative: G. H. Forsyth, D.Sc.

A report by W. E. Bardjett and United Steel Co., Ltd., reference J/E T169, deals with the effect of varying quantities of molybdenum in chromium-molybdenum tube steels being developed for superheater service at 1,100 to 1,200 deg. F. A series of 3, 5, and 9 per cent chromium steels, each having molybdenum contents respectively of 0.65, 1.0 and 1.3 per cent, were subjected to Barr-Bardjett creep tests; no appreciable difference in creep resistance was found due to the variation of the molybdenum content. To avoid scaling at temperatures of 1,100 deg. F. and above, a steel of higher chromium content than 3 per cent would be necessary, and the tests indicate that reduction of creep properties due to the increase of chromium content would not be compensated for by increase in molybdenum content.

A summary, reference J/E/T168, of the creep properties of a number of molybdenum-vanadium and molybdenum steels, the result of investigation carried out over several years, was contained in a paper submitted by the N.P.L. The summary, in tabulated form, shows clearly the superiority of the molybdenum-vanadium over molybdenum steels as regards resistance to creep.

Consequent on the receipt of memoranda from the N.P.L. and various turbine manufacturers, the committee decided that the recommendations in the report J/E/R45, regarding the programme of work for the future, should be adopted. These were that a thorough investigation of the most suitable existing material for a temperature of 1,050 deg. F. should be carried out, particular attention being paid to its suitability for manufacturing processes. The properties of the material, molybdenum-vanadium steel, should be determined for parts truly representative of the applications in view. Test pieces should be taken from a test rotor forging, heat treated as would be a service rotor. Long time creep tests should be made. Examination of all data referring to the scaling of ferritic steels in air and steam should be completed, and N.P.L. investigations of that subject, suspended during the war, should be continued.

A draft specification of the molybdenum-vanadium steel rotor has been drawn up and is to be circulated to steel manufacturers and turbine builders.

Other subjects on which research will continue are:—

- (a) The cracking of molybdenum steel pipes.
- (b) The combined effect of superheated steam and stress on steel pipes.
- (c) Stresses giving rise to circumferential creep.
- (d) Molybdenum and vanadium steels.
- (e) The corrosion of ferritic steels.

The British Shipbuilding Research Association Research Board.
Representative: S. A. Smith, M.Sc.

In the previous report, reference was made to the fact that the end of March 1949 would see the completion of the first five years of the Association's existence. During the past year, therefore, attention has been devoted to reviewing the work of the Association in the initial period and to considering future plans. The programme of research is, of course, of a continuing nature and no major alterations are to be made in it though it will constantly be kept under review and new items added as occasion demands. There is to be no change in the general policy of the Association.

In 1948 an item providing for an investigation of the process of scavenging in two cycle marine oil engines was placed on the research programme, and in the past year careful consideration has been given to the work to be carried out. A special panel set up to formulate proposals for research has recommended that a single cylinder opposed piston engine be designed and units be constructed specifically for experimental

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work. The preparation of a basic design has been undertaken by the Association's staff and arrangements are being made for the construction of two units.

Erection of the full scale single tube experimental boiler at the Royal Technical College, Glasgow, is now well advanced and is expected to be in operation shortly.

On the hydrodynamics side, work has continued on the B.S.R.A. Methodical Series experiments, though to some extent interrupted by the laminar flow investigations in which world-wide interest has been displayed. In addition to the work undertaken for the Association at the tank at Teddington, great help has been afforded by the tanks of firms in the shipbuilding industry.

Space does not permit of a detailed reference to items in other sections of the programme, but work generally is well advanced. This has been reflected in reports issued to member firms. Many of the reports have been released for wider publication. As the starting point for any research is a survey of known information on the subject, many of the earlier reports were of this nature but it must be recorded that an increasing number of reports are now concerned with accounts of experimental investigations, and to this extent they are of increased value to the industry. The Journal of the Association, which is produced within the Intelligence Section, has continued to appear each month during the past year. The Library, enquiry, and other services have also been much used.

Members of the staff have continued to attend loaded and measured mile trials and have collected much data and information.

World Power Conference: British National Committee. Representative: A. Robertson, C.C.

The last year's activities have been associated with the organization of the Fourth World Power Conference, which is to take place in July of this year.

As representative of the Institute, Mr. Robertson attended the several Committee meetings and he was asked to become a Member of the Reception and Entertainments Committee, which he accepted. The Conference takes place in London from the 10th to the 15th July 1953. Altogether 158 papers have been submitted for discussion.

During the following week many tours and visits have been arranged to suit the many delegates who will be attending this conference. The tours include visits to power stations, works of all kinds, manufacturing boiler and electrical equipment, hydro-electric power stations, oil refineries, etc.

British Standards Institution's Committees

Sub-Committee MEE/17—Gears. Representative: G. H. Forsyth, D.Sc.

During the past year the revised "B.S.545 Bevel Gears (Machine Cut)" has been accepted and published.

The revision of "B.S.721 Worm Gears" has been continued and nearly finalized. Draft copies have been circulated for some time now, and publication can be expected in the near future.

A sub-committee was formed to deal with correspondence relating to gear standardization from the International Standards Organization and the American Gear Manufacturers' Association.

MEE/32 Engineering Symbols and Abbreviations. Representative: J. Calderwood, M.Sc.

One meeting was held in November. The main business was the reconstruction of the Committee, which had not met for many years.

A sub-committee was appointed to consider re-drafting and combining B.S. Specifications 560 and 813 relating to engineering and chemical symbols.

MEE/39 Compressor Tests and Definitions. Representative: J. Calderwood, M.Sc.

The first part of the work of this Committee, i.e., the drafting of the British Standard tests for compressors and exhausters has been completed, and a draft specification was issued some time ago. The Committee is now considering the

test code for turbine type compressors and exhausters.

MEE/— Mechanical Engineering Industry Standards Committee. Representative: J. Carnaghan.

The following Standards *inter alia* were approved for publication:—

Pressed steel and cast steel sectional rectangular tanks.

Numbering of cylinders of internal combustion engines.

Panel type air filter elements.

Acceptance tests for positive displacement compressors and exhausters.

Electrically welded mild steel boiler and superheater tubes for design steam temperatures not exceeding 856 deg. F.

Seamless chromium molybdenum steel boiler and superheater tubes for design steam temperatures not exceeding 1,000 deg. F.

Seamless half-per-cent molybdenum steel boiler and superheater tubes for design steam temperatures not exceeding 950 deg. F.

Ball and roller bearing plummer blocks.

Cast iron pipe fittings for automatic sprinklers and other fire protective installations.

Verifications of testing machines.

Method for a simple bend test.

Vernier height gauges.

Revisions of Standards approved for publication:—

B.S. 494. Cold drawn seamless mild steel boiler and superheater tubes for design steam temperatures not exceeding 850 deg. F.

B.S. 512. Hot finished seamless mild steel boiler and superheater tubes for design steam temperatures not exceeding 850 deg. F.

B.S. 545. Machine cut gears.

B.S. 649. Internal combustion engines for stationary and industrial purposes and auxiliary purposes on shipboard.

B.S. 759. Valves, gauges and similar fittings for land boiler installations.

B.S. 1123. Valves, gauges and other safety fittings for air receivers and compressed air installations.

New Standards already published:—

B.S. 1580:1949. Unified screw threads.

B.S. 1574:1949. Split cotter pins.

MEE/34 Land Boiler Committee. Representative: J. Carnaghan.

The following proposed and amendard Standards were passed for submission to the Mechanical Engineering Industry Standards Committee:—

New Standards:—

Electrically welded mild steel boiler and superheater tubes for design steam temperatures not exceeding 850 deg. F.

Seamless chromium molybdenum steel boiler and superheater tubes for design steam temperatures not exceeding 1,000 deg. F.

Seamless half-per-cent molybdenum steel boiler and superheater tubes for design steam temperatures not exceeding 950 deg. F.

Revised Standards:—

B.S. 494. Cold drawn seamless mild steel boiler and superheater tubes for design steam temperatures not exceeding 850 deg. F.

B.S. 512. Hot finished seamless mild steel boiler and superheater tubes for design steam temperatures not exceeding 850 deg. F.

B.S. 759. Valves, gauges and similar fittings for land boiler installations.

B.S. 806. Ferrous pipes and piping installations for and in connexion with land boilers.

B.S. 1123. Valves, gauges and other safety fittings for air receivers and compound air installations.

MEE/34 Land Boilers. Representative: J. Carnaghan.

The Sub-committee have revised the following Standards and these will be submitted to the Main Committee for consideration:—

B.S. 537. Lancashire and Cornish boilers.

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B.S. 609. Multitubular horizontal boilers (dry back and waste heat).

B.S. 665. Vertical cross tube boilers.

B.S. 761. Cylindrical vertical multitubular boilers.

B.S. 931. Loco-type multitubular boilers.

These land boiler Standards have been revised to a considerable extent with a view to bringing them into a common form as far as practicable. It has also been proposed to dispense with the detailed specification for the steel material and to refer to a new British Standard for "Steel for land boilers and other pressure vessels", which is at present in the first stage of preparation. Sketches of typical methods of attachment for stand pipes and pads, secured by welding alone, have been included.

MEE/34/2 Water tube boilers. Representative: J. Carnaghan.

B.S. 1113. Water tube boilers and their integral superheaters.

The Sub-committee have revised this Standard to a considerable extent, embodying the amendment slips which were previously published. Sketches of typical methods of attachment for stand pipes and pads, secured by welding alone, have been included.

MEE/34/6 Boiler mountings and fittings. Representative: J. Carnaghan.

The following Standards have been revised:—

B.S. 759. Valves, gauges and similar fittings for land boiler installations.

B.S. 1123. Valves, gauges and other safety fittings for air receivers and compressed air installations.

In the latter Standard, provision has been made for determining the aggregate area of the safety valves.

MEE/34/8 Pipes and piping. Representative: J. Carnaghan.

B.S. 806. Ferrous pipes and piping installations for and in connexion with land boilers.

An amendment slip has been issued and it is intended to revise this Standard in due course.

MEE/34/9 Boiler and superheater tubes. Representative: J. Carnaghan.

The following proposed and amended Standards were prepared and submitted to the Main Committee for land boilers for consideration:—

New Standards:—

Electrically welded mild steel boiler and superheater tubes for design steam temperatures not exceeding 850 deg. F.

Seamless chromium molybdenum steel boiler and superheater tubes for design steam temperatures not exceeding 1,000 deg. F.

Seamless half-per-cent molybdenum steel boiler and superheater tubes for design steam temperatures not exceeding 950 deg. F.

Revised Standards:—

B.S. 494. Cold drawn seamless mild steel boiler and superheater tubes for design steam temperatures not exceeding 850 deg. F.

B.S. 512. Hot finished seamless mild steel boiler and superheater tubes for design steam temperatures not exceeding 850 deg. F.

A new Standard for "Cold drawn electrically welded mild steel boiler tubes" is being prepared.

MEE/12 Chains and fittings. Representative: J. Carnaghan.

B.S. 482. Wrought iron or mild steel hooks for cranes, chains, slings, blocks and general engineering purposes.

This Standard has been revised and submitted to the Mechanical Engineering Industry Standards Committee for approval. A new Standard for "Electrically welded higher tensile steel chain" has been prepared.

MEE/21/1 Air receivers. Representative: J. Carnaghan.

B.S. 487. Fusion welded steel air receivers.

This Standard has been revised.

ISE/6 Steel castings. Representative: J. Carnaghan.

B.S. 592. Carbon steel castings for general engineering purposes.

This Standard has been revised. It now provides for three grades of steel, viz., A, B and C: 28, 32 and 35 minimum ultimate tensile stress in tons per square inch.

Sub-Committee MEE/43/6 Gear Cutting Machines. Representative: S. A. Smith, M.Sc.

In accordance with the arrangements made at the last meetings of the Committee, the drafting of the Standard for Gears for Turbines and similar Drives was referred to the Panel MEE/43/6/1.

The Panel has been actively engaged on this work and in December copies of the draft Standard CK(MEE) 7723 were circulated to the interested Government Departments and trade and technical organizations for their comments. This draft is still under consideration.

Sub-Committee ELE/3/2 Ship's Electric Cables. Representative: N. H. Swancoat.

The revised British Standard 883/1949 was issued during the past year. This Standard has superseded all previous issues.

Sub-Committee CHE/37 Boiler Water Tests. Representative: H. J. Wheadon.

A meeting of this Committee was held in October 1949, to consider the desirability of preparing a British Standard for the treatment of water for land boilers. It was found impracticable to compile a standard of treatment, on account of the variations which exist in land installations and the differences in water to be treated. The Committee, however, felt a useful service could be rendered by the publication of a code of practice outlining the general principles of water treatment for land boilers.

It was, therefore, decided to appoint a Sub-committee CHE/37/5, consisting of chemists and engineers with experience of land installations, to compile such a code of practice.

Sub-Committee MEE/81 Dimensional Standardization of Valves for Gas, Water and Steam. Representative: A. Logan.

At a meeting held on the 15th December 1949, it was agreed that standardization of valves for general purposes was desirable, but that there were several classes of valves which could be incorporated in a broad specification. It was decided that a sub-committee should be set up to deal with general purpose valves of the globe and gate types for steam and water, in the first instance, with the possibility of the same sub-committee later undertaking the task of drafting a specification or specifications for other more specialized types of valves.

Sub-Committee SPE/— Solid Fuel Industry Standards Committee.

Sub-Committee SPE/1 Nomenclature and Definitions for Solid Fuel Burning Appliances.

Sub-Committee SPE/1/2 Steam Generators and Boilers. Representative: W. Dowling.

During the past year the above-mentioned Committees have prepared a glossary for coal-burning appliances, comprising terminology and definitions, also a British Standard for automatic underfeed screw type stokers, together with a British Standard for solid fuel fired furnaces, ovens and kilns, including methods for testing and evaluating performance.

A report has been published on temperature measurement by optical pyrometers and the revised B.S. 1251 Open Fires, has been issued.

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PSM/2 Welders' Goggles. Representative: James Turnbull, O.B.E.

Consideration is being given to amending the existing specifications so that certain thermoplastic materials might be included. It is understood that these materials can now be moulded to form welding masks of one-piece construction, which are claimed to have advantages over the normal type of welding goggles.

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

The Committee passed for publication several specifications dealing with methods of metallurgical analysis. A special effort is being made to co-ordinate the many Iron and Steel specifications, and arrangements are well in hand for holding the first meeting of the International Committee on Iron and Steel.

A. LOGAN (*Chairman of Council*)

B. C. CURLING (*Secretary*)

13th March 1950

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 1949, and we set out below our observations.

(1) The Revenue Account shows a surplus of £1,901 17s. 11d. as compared with £478 16s. 3d. last year, an increase of £1,423 1s. 8d.

(2) The Gross Revenue was £19,748 19s. 6d., an increase of £2,295 0s. 3d. made up as follows:—

	Decrease	Increase
	£ s. d.	£ s. d.
Subscription	—	1,189 16 3
Entrance Fees	129 6 11	—
Examination Fees	18 15 0	—
Advertisements	—	1,051 9 9
Transactions (Bound Volumes)	—	10 16 6
Interest	—	166 11 2
Rent of Basement	11 5 0	—
Hire of Hall and Library	—	35 13 6
	159 6 11	2,454 7 2
<i>Deduct: Decreases</i> ... ..	...	159 6 11
Increase as above ... ..	...	£2,295 0 3

(3) Expenditure charged to Revenue Account amounted to £17,847 1s. 7d., an increase of £871 18s. 7d., made up as follows:—

	Decrease	Increase
	£ s. d.	£ s. d.
General Expenses	—	97 17 5
Rent, Rates, etc.	—	60 4 10
House Account... ..	—	223 0 3
Repairs	—	248 14 6
Insurance	4 0 8	—
	4 0 8	629 17 0

	Decrease	Increase
	£ s. d.	£ s. d.
Brought forward	4 0 8	629 17 0
Transactions	—	165 1 6
Transactions (Bound Volumes)	18 6 0	—
Library and Reading Room	—	34 12 11
Depreciation	—	25 18 4
Prizes	—	38 15 6
	22 6 8	894 5 3
<i>Deduct: Decreases</i> ... ..	...	22 6 8
Increase as above ... ..	...	£871 18 7

(4) The Increase in Revenue is made up as follows:—

	£ s. d.
Increase in Income	2,295 0 3
<i>Less: Increase in Expenditure</i>	871 18 7
Increase in Revenue	£1,423 1 8

(5) *Sales of Handbooks*

The following profits have been made during the year:—

	£ s. d.
“The Running and Maintenance of Marine Machinery”	257 15 7
“Electricity Applied to Marine Engineering”	241 7 2
“Naval Architecture and Ship Construction”	295 7 1

(6) *Investments*

The market value at 31st December 1949, of the Institute's free investments standing in the books at £34,090 16s. 10d. was £32,006.

During the year, £1,000 was withdrawn from the Post Office Savings Bank.

£4,000 3½% War Loan has been purchased for £4,162 7s. 2d.

(7) Extensive repairs have been carried out and it is estimated that £1,000 or more of the cost will be recovered from the War Damage Commission.

(8) *National War Memorial Building Fund*

The fund now amounts to £58,337 19s. 7d., an increase of £1,917 17s. 6d., made up as follows:—

	£ s. d.
Donations... ..	431 3 0
Investment Income	1,486 14 6
Increase as above	£1,917 17 6

£55,679 0s. 8d. of the fund is invested in Government Securities as detailed in the separate account, having a market value at 31st December 1949, of £52,272 10s. 0d. These figures include £3,000 3½% War Loan which was purchased during the year for £3,088 0s. 5d.

(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 AND DRAKE,

Chartered Accountants.

BALANCE SHEET 31st DECEMBER 1949

	£	s.	d.		£	s.	d.
Sundry Creditors					1,898	4	2
Subscriptions in Advance					1,347	3	4
Life Subscriptions to be Invested					861	0	0
Denny Gold Medal							
Balance at 31st December, 1948 :							
Capital Fund				250	0	0	
		£	s.	d.			
Accumulated Income		26	3	0			
Reserve for Medals to 1948 not required		23	12	8			
Add : Interest at 4% per annum		10	0	0			
		59	15	8			
Less : Reserve for Award		7	5	0			
		52	10	8			
					302	10	8
Denny Award (£100)							
Capital Fund as at 31st December, 1948					100	0	0
Stephen Legacy (£100)							
Capital Fund as at 31st December, 1948					100	0	0
John I. Jacobs Award (£200)							
Capital Fund as at 31st December, 1948					119	0	0
D. F. Robertson Award (£100)							
Capital Fund as at 31st December, 1948					100	0	0
Murdoch Legacy (£100)							
Balance as at 31st December, 1948 :							
Realised on sale by Executors					62	0	0
Lord Inverforth Award (£100)							
Capital Fund as at 31st December, 1948					100	0	0
Akroyd Stuart Award (£700)							
Balance as at 31st December, 1948 :							
Capital Fund				700	0	0	
Accumulated Income		178	1	5			
Add : Interest on Investment		32	0	6			
		210	1	11			
Less : Award		50	0	0			
		160	1	11			
					860	1	11
W. W. Marriner Prize (£166)							
Balance as at 31st December, 1948 :							
Capital Fund				166	0	0	
Accumulated Income		3	14	5			
Add : Interest on Investment		5	0	0			
		8	14	5			
Less : Award		5	0	0			
		3	14	5			
					169	14	5
Adam Girdwood Award							
Balance as at 31st December, 1948 :							
Capital Fund				15	0	0	
Accumulated Income		6	13	6			
Add : Interest on Investment		1	10	0			
		8	3	6			
					23	3	6

	£	s.	d.		£	s.	d.
Cash at Bank and in Hand							
Current Account	574	13	3				
Social Events Account	782	19	10				
Social Events Account—Junior Section	3	15	7				
Post Office Savings Bank Account	184	18	4				
In Hand	17	7	0				
					1,563	14	0
Sundry Debtors							
For Advertisements	1,194	18	2				
Sundries	726	8	3				
Payments in Advance	187	4	2				
War Damage Repairs Recoverable	1,000	0	0				
					3,108	10	7
Investments							
£2,500 3½% War Loan at cost less Bonus	2,570	14	6				
£2,700 3½% War Loan at cost	2,736	4	8				
£4,000 3½% War Loan at cost	4,162	7	2				
£2,500 3½% Conversion Loan at cost	2,668	0	0				
£2,000 3% Defence Bonds at cost	2,000	0	0				
£1,000 3% National Defence Loan 1954-58 at cost	998	17	0				
£834 3% Savings Bonds "A" 1955-65 at cost	834	0	0				
£1,000 3% Savings Bonds "A" 1965-75 at cost	1,007	16	0				
£1,000 3% Savings Bonds "B" 1955-65 at cost	1,000	0	0				
£9,000 3% Savings Bonds "B" 1960-70 at cost	9,000	0	0				
£800 3% Treasury Stock at cost	703	17	0				
£6,000 British Transport 3% Guaranteed Stock 1978-88 at cost	5,917	14	6				
£500 Australia 3½% Registered Stock 1956-61 at cost	491	6	0				
(Market Value at 31st December, 1949, £32,006).					34,090	16	10
Investments (Awards)							
Akroyd Stuart Award							
£915 3½% Conversion Loan, 1961, at cost	698	4	11				
John I. Jacobs Award							
£200 2½% Consols as valued at 31st January, 1919	119	0	0				
Lord Inverforth Award							
£100 3½% War Loan at par	100	0	0				
W. W. Marriner Prize							
£166 3% Savings Bonds "A" 1955-65 at cost	166	0	0				
Adam Girdwood Award							
15 £1 Shares in Edinburgh Building Contractors, Ltd., as valued at 2nd March, 1943	15	0	0				
					1,098	4	11
City Premises at Cost					14,650	0	5
Single Premiums to:—							
Royal Exchange Assurance Company to secure the payment:							
On 1st November, 2011 of £10,000**							
„ 10th June, 2012 of £2,000 *							
„ 10th June, 2012 of £1,000 *							
„ 10th June, 2012 of £1,000 *							
„ 10th June, 2012 of £1,000 *							
„ 10th June, 2012 of £5,000 †							

Awards Combined Income Fund		£	s. d.	£	s. d.
Balance as at 31st December, 1948	...	82	6 6		
Add: Combined Interest for the year	...	22	10 0		
		104	16 6		
Less: Awards	...	40	0 0	64	16 6
"Running and Maintenance of Marine Machinery"					
Balance as at 31st December, 1948	...	687	10 1		
Add: Profit on Sales during the year	...	257	15 7	945	5 8
"Electricity Applied to Marine Engineering"					
Balance as at 31st December, 1948	...	236	9 6		
Add: Profit on Sales during the year	...	241	7 2	477	16 8
"Naval Architecture and Ship Construction"					
Balance as at 31st December, 1948	...	687	13 11		
Add: Profit on Sales during the year	...	295	7 1	983	1 0
Social Events Account	...	782	19 10		
Social Events Account—Junior Section	...	3	15 7	786	15 5
Reserve for Renewal of Premises	...			7,000	0 0
Pension Fund	...			1,015	2 4
Capital Account					
As at 31st December, 1948	...	38,884	1 4		
Add: Balance of Revenue Account for the year ended 31st December, 1949	...	1,901	17 11	40,785	19 3
				£58,101	14 10

The Canada Life Assurance Company to secure the payment on 10th June, 2012 of	£1,000 *	£	s. d.	£	s. d.
Atlas Assurance Company to secure the payment on 10th June, 2012 of	£1,000 *				
Sun Life Assurance Society to secure the payment on 10th June, 2012 of	£1,000*†				
		£23,000			

** Premiums paid out of Capital.
* Premiums paid out of Life Subscriptions.
† Premiums paid out of Revenue.
*† Premiums paid partly out of Life Subscriptions and partly out of Revenue.
(The present surrender value of the above Policies is £3,094).

Furniture, at Cost, less Depreciation					
As at 31st December, 1948	...	1,000	0 0		
Additions during the year	...	567	8 10		
		1,567	8 10		
Less: Depreciation	...	127	8 10		
Sales	...	40	0 0	167	8 10
				1,400	0 0
Books in Library at cost	...			302	2 0
Stock of Publications					
"Electricity Applied to Marine Engineering"	...	955	6 3		
"Running and Maintenance of Marine Machinery"	...	775	15 10		
"Naval Architecture and Ship Construction"	...	157	4 0	1,888	6 1
				£58,101	14 10

TABLE A

	1940		1941		1942		1943		1944		1945		1946		1947		1948		1949	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Receipts from Subscriptions	6,356	16 3	6,515	1 9	6,271	1 0	7,172	6 1	7,143	18 0	7,872	1 1	8,379	4 3	8,876	1 10	11,639	4 0	12,829	0 3
Entrance Fees	181	10 0	178	15 0	237	15 0	414	10 0	562	15 0	591	5 0	759	10 0	725	4 6	828	1 11	698	15 0
Advertisements	1,435	5 0	1,458	9 0	1,576	16 4	1,796	14 2	1,901	6 1	2,006	15 10	2,918	18 5	2,966	15 7	3,839	17 10	4,891	7 7
Total Income	8,787	7 5	8,956	1 9	9,034	17 2	10,432	0 7	10,603	0 1	11,436	6 4	13,133	11 8	13,694	17 8	17,453	19 3	19,748	19 6
General Ex. A/c.	3,315	0 1	3,241	8 7	3,396	9 3	4,006	13 3	4,010	6 8	4,273	8 7	4,940	0 5	6,390	15 7	7,242	16 5	7,340	13 10
Rent, Rates and Taxes	661	16 7	705	11 8	712	14 6	494	3 8	597	4 5	551	13 3	522	15 10	650	1 3	686	2 4	746	7 2
House A/c.	480	12 8	371	19 6	492	0 0	495	4 11	573	7 2	719	11 1	960	9 8	977	14 9	943	6 6	1,166	6 9
Repairs and Redecorations	204	7 11	89	6 0	7	18 6	134	15 9	161	17 2	236	11 11	5	11 1	80	11 1	63	4 1	834	9 5
Transactions	2,751	18 9	2,790	7 0	2,433	8 3	2,507	7 9	2,906	10 4	2,702	19 8	4,176	14 9	4,632	12 3	6,042	0 3	6,207	1 9
Sundry Creditors	759	6 2	411	6 11	449	5 9	439	16 11	553	10 6	902	3 10	1,300	9 3	1,119	5 1	1,267	2 11	1,898	4 2
Capital A/c.	31,344	13 11	32,476	14 2	33,066	4 2	34,443	1 3	35,122	7 0	36,675	9 0	37,859	5 10	38,533	9 8	38,884	1 4	40,785	19 3
Reserve for Renewal of Premises	—		—		1,000	0 0	2,000	0 0	3,000	0 0	4,000	0 0	5,000	0 0	5,000	0 0	6,000	0 3	7,000	0 0
Balance on Revenue A/c.	1,193	17 1	1,202	8 11	589	10 0	1,376	17 1	679	5 9	1,553	2 0	1,183	16 10	584	1 4	478	16 0	1,901	17 11

REVENUE ACCOUNT 1st January, 1949 to 31st December, 1949.

	£	s.	d.	£	s.	d.
To General Expenses						
Bank Charges and Cheque Books	4	0	0			
Postage and Telegrams	382	17	5			
Engrossing Certificates	57	5	9			
Examination Expenses :—						
Common Preliminary Examination	47	2	3			
Associate Members	91	9	11			
Stationery and General Printing	766	12	4			
Staff Salaries, National Insurance and Clerical Assistance	4,681	6	4			
Audit Fees	125	0	0			
Telephone	85	17	11			
Affiliation Subscriptions and Contributions to Institutions for Research	118	7	6			
Sundries	582	15	11			
Staff Pension Insurance	397	18	6			
	<hr/>			7,340	13	10
„ Rent, Rates, etc.						
Ground Rent, Land Tax and Tithe	118	0	6			
Rates	472	19	5			
Gas and Electricity	104	11	3			
Water	50	16	0			
	<hr/>			746	7	2
„ House Account						
Staff Wages and National Insurance	652	0	11			
Coal	103	1	6			
Sundries	134	7	10			
Window and General Cleaning	276	16	6			
	<hr/>			1,166	6	9
„ Repairs	<hr/>			834	9	5
„ Insurance	<hr/>			59	3	5
„ Transactions						
Printing	4,169	1	5			
Abstracting	330	0	0			
Postage	683	16	0			
Wrappers and Addressing	302	17	6			
Advertisements	1,575	0	11			
	<hr/>			7,060	15	10
Less : Proceeds of Sales	853	14	1			
	<hr/>			6,207	1	9
„ Interest						
Denny Gold Medal	10	0	0			
Sir Archibald Denny Award	5	0	0			
Stephen Legacy	2	10	0			
D. F. Robertson Award	4	0	0			
Murdoch Legacy	2	10	0			
	<hr/>			24	0	0
„ Library and Reading Room Account	<hr/>			231	6	11
„ Depreciation of Furniture	<hr/>			127	8	10
„ Prizes						
Heat Engines Prizes	56	14	0			
H.M.S. Worcester Prize	2	2	0			
Silver Medals						
Cost of Medals to 1948 in excess of Reserve	39	7	6			
Reserve for 1949 Medals	12	0	0			
	<hr/>			51	7	6
	<hr/>			110	3	6
„ Reserve for Renewal of Premises	<hr/>			1,000	0	0
	<hr/>			17,847	1	7
„ Balance, Excess of Income over Expenditure for the year, carried to Balance Sheet	<hr/>			1,901	17	11
	<hr/>			£19,748	19	6

	£	s.	d.	£	s.	d.
By Subscriptions						
Members	10,883	0	11			
Associate Members	917	15	5			
Associates	1,964	1	3			
Graduates	216	18	3			
Students	108	5	9			
Companions	86	2	0			
	<hr/>			14,176	3	7
Less : Subscriptions Paid in Advance :						
Members	949	13	3			
Associate Members	85	14	0			
Associates	276	13	0			
Graduates	23	7	7			
Students	11	15	6			
Companions						
	<hr/>			1,347	3	4
	<hr/>			12,829	0	3
„ Entrance Fees						698 15 0
„ Examination Fees						16 12 0
„ Advertisements						
Transactions						4,891 7 7
„ Rent Receivable						
Basement						128 15 0
„ Hire of Hall and Library						74 1 6
„ Transactions (Bound Volumes)						10 16 6
„ Interest						
3½% War Loan	322	0	0			
3½% Conversion Loan... ..	87	10	0			
3% National Defence Loan	30	0	0			
3% Defence Bonds	60	0	0			
3% Savings Bonds 1955/65	55	0	0			
3% Savings Bonds 1960/70	270	0	0			
3% Savings Bonds 1965/75	30	0	0			
3% Treasury Stock	24	0	0			
Guaranteed 3% Stock (Irish Land Acts 1903 and 1909)						
Australia 3½% Registered Stock	16	5	0			
British Transport 3% Stock 1978/88	180	0	0			
Post Office Savings Bank Account	24	16	8			
	<hr/>			1,099	11	8

£19,748 19 6

NATIONAL WAR MEMORIAL BUILDING FUND.

		£	s.	d.		£	s.	d.		£	s.	d.				
To Accumulated Fund						By Investments at Cost										
Balance at 31st December, 1948	...	56,420	2	1		£2,500	2½%	Defence Bonds, 1957	...	2,500	0	0				
Receipts during the year :						£33,000	2½%	Savings Bonds 1964/67	...	33,285	7	0				
Donations	...	431	3	0		£9,000	3%	Savings Bonds 1955/65	...	9,046	0	0				
Investment Income	...	1,486	14	6		£3,750	3%	Savings Bonds 1965/75	...	3,777	3	0				
						£1,000	3½%	War Loan	...	1,021	17	3				
					1,917					3,088	0	5				
					58,337					£3,000	3½%	War Loan	...	3,088	0	5
					19					£3,000	British Transport	3% Guaranteed	...	2,960	13	0
					7					Stock 1978/88	...	...	...	1,608	17	0
					£58,337					Post Office Savings Bank Deposit Account...	...	...	...
					19									57,287	17	8
					7					„ Cash at Bank	...	...	...	526	19	5
					£58,337					„ Income Tax Recoverable	...	...	...	523	2	9
					19									£58,337	19	7
					7									£58,337	19	7

SOCIAL EVENTS ACCOUNT.

					£	s.	d.						£	s.	d.
To Payments	...	...	...	...	1,928	10	5	By Balance at 31st December, 1948	...	...	...	684	14	9
„ Balance at 31st December, 1949	...	...	...	...	782	19	10	„ Receipts	...	...	...	2,026	15	6
					£2,711	10	3					£2,711	10	3	

LIBRARY AND READING ROOM ACCOUNT.

					£	s.	d.						£	s.	d.
To Reading Room Expenses	...	...	...	...	121	14	4	By Sales	...	...	...	7	16	6
„ Grant to Mr. Robinson	...	...	...	...	10	0	0	„ Revenue Account	...	...	...	231	6	11
„ Book Purchases and Binding	...	...	...	...	107	9	1					£239	3	5
					£239	3	5					£239	3	5	

Annual Dinner

The Forty-Seventh Annual Dinner of the Institute was held at the Connaught Rooms, London, on Friday, 10th March 1950 and was attended by 700 members and guests.

Commander SIR ROBERT MICKLEM, C.B.E., R.N.(ret), Past-President, occupied the Chair.

The guests present included: His Excellency Señor Don Manuel Bianchi, the Chilean Ambassador, His Excellency Vicomte A. O. de Thieusies, the Belgian Ambassador, His Excellency Hr. Per Prebensen, the Norwegian Ambassador, His Excellency W. J. Jordan, the High Commissioner for New Zealand, The Rt. Hon. Viscount Alexander of Hillsborough, P.C., C.H., Chancellor of the Duchy of Lancaster, Admiral Lord Fraser of North Cape, G.C.B., K.B.E., the First Sea Lord, Sir Stanley V. Goodall, K.C.B., O.B.E., Vice-President, Institution of Naval Architects, Sir Harold Hartley, K.C.V.O., M.C., F.R.S., Chairman, Fourth World Power Conference, The Rt. Hon. Viscount Bruce of Melbourn, P.C., C.H., M.C., Marshal of the Royal Air Force Lord Tedder, G.C.B., Sir Gilmour Jenkins, K.C.B., K.B.E., M.C., Permanent Secretary, Ministry of Transport, Charles Torrance, Esq., Deputy High Commissioner for South Africa, Rear-Admiral(E) the Hon. D. C. Maxwell, C.B., C.B.E., Engineer-in-Chief of the Fleet, Sir Amos L. Ayre, K.B.E., D.Sc. (Past-President), Chairman, Shipbuilding Conference, Sir A. Murray Stephen, M.C., B.A. (President-designate), Chairman, British Shipbuilding Research Association, Dr. H. J. Gough, C.B., M.B.E., F.R.S., President, Institution of Mechanical Engineers, J. W. Platt, Esq., Managing Director, Eagle Oil and Shipping Co., Ltd., Sir Ronald Garrett, Chairman, Lloyd's Register of Shipping, Sir Edward Wilshaw, K.C.M.G., J.P., Sir Guy Ropner, J.P., Chairman, the Chamber of Shipping, Sir Cuthbert Whitaker, F.S.A., H. R. Lintern, Esq., Director of Sea Transport, Major-General A. E. Davidson, C.B., D.S.O., President, Diesel Engine Users Association, Sir E. Julian Foley, C.B., Past-President, Major-General W. Brooke Purdon, D.S.O., O.B.E., M.C., Acting Agent for N. Ireland, Capt. C. St. G. Glasson, Deputy Master, Honourable Company of Master Mariners, W. Donald, Esq., C.B.E., Chairman, Port Line Ltd., Dr. E. C. Bullard, M.A., Ph.D., Sc.D., F.R.S., Director, National Physical Laboratory, Capt. V. B. Cole, U.S.N., Assistant Attaché, W. MacGillivray, Esq., Director, Prince Line Ltd., G. H. Trott, Esq., C.B.E., Chairman, Blue Star Line Ltd., H. J. E. Stinson, Esq., M.C., M.A., LL.B., The Chief Commoner, Col. C. M. Croft, D.L., J.P., Chairman, Reception and Entertainment Committee, Fourth World Power Conference, C. Ernest Link, Esq., Chairman, Improvements and Town Planning Committee, Capt. Sir Charles E. Madden, R.N., P. T. Lovely, Esq., President, City Livery Company, H. O. Kohl, Esq., Director, John I. Jacobs and Co., Ltd., Com'r(E) R. J. McKeown, R.C.N., Capt. T. W. Ross, R.A.N., Capt.(S) A. D. Duckworth, R.N.(ret), Secretary, Institution of Naval Architects, Eng. Capt. G. Villar, R.N.(ret), Engineer Manager, John I. Thornycroft and Co., Ltd., Brig. H. N. Gallagher, C.B.E., Deputy General Secretary, Fourth World Power Conference, Capt. B. A. Samson, I.N., Com'r A. Rashid, R.P.N., Lieut. P. A. Bence-Trower, R.N., Flag Lieut. to the First Sea Lord.

The Loyal Toast having been duly honoured, SIR HAROLD HARTLEY, K.C.V.O., M.C., F.R.S., in proposing the toast "The Royal and Merchant Navies of the British Commonwealth", said: You will remember, Chairman, the misgivings I had when you did me the honour of asking me to propose

this toast; but I was encouraged by recalling some words of Francis Bacon when he said: "Bashfulness is a great hindrance to a man, wherefore it is good to press himself forwards with discretion both in speech and company of the better sort". What company of a better sort could there be than your company tonight? What subject of a speech could there be more stirring than the toast which I have to propose? It is a toast which we shall drink, not merely in token of good fellowship, but with a deep feeling of gratitude and admiration—the toast of the Royal and Merchant Navies of the British Commonwealth. (*Applause.*)

It is quite impossible to attempt to express in words our gratitude and admiration, but here are a few thoughts that come into my mind.

We are apt to forget—and I hope in the presence of your guests that it is not inappropriate to refer to it—that remarkable immunity from unwelcome foreign visitors which we have enjoyed for many hundreds of years, an immunity which we owe to the courage and devotion and skill of the Royal and Merchant Navies. I must make one qualification, for I see Lord Tedder has his eye on me, and say until the Battle of Britain. (*Applause.*)

Then there is the vital part which those navies have played in the building and maintenance of the Empire with its long lifelines, the British Commonwealth, the brotherhood that is unique in history and which today stands four square with the United States as the main bulwark of freedom in the world. (*Hear, hear.*)

My mind goes back to those dark days at the beginning of the war when it was the exploits of the Navy which gave us the only bright moments which strengthened and renewed our faith in this country. I am thinking of the Battle of the River Plate; of the rescue of those captured crews from the *Altmark*, and the gallant fight of the *Acasta*. And then the convoys, when the Merchant Navy was always in the front line, and their courage, endurance and seamanship were tested as never before. I have in mind the Atlantic convoys and the epic of the *Jervis Bay*, the Archangel convoy and the convoys to Malta. I was in Washington just before the war, and the Americans were convinced that if war came we could not hold Malta for a week; but it was the unquenchable determination of the Royal and Merchant Navies which brought those supplies to Malta which were so indispensable to its defence.

Of course, it is very easy for a landsman to talk bravely about the sea when he is on dry land, especially after such a good dinner; but I do remember other circumstances. Some forty-odd years ago I used to take a cricket team to play *Osborne*. They always sent a small craft to meet us, and I do not know whether the choice was deliberate—I do not want to cast any aspersions on the marine engineers—but I can say that there was a most disconcerting motion! (*Laughter.*) That factor together with naval hospitality was worth quite a few wickets to the home side!

Then I recall rather a dirty night in the Mediterranean off Crete, when I was lying on a deck chair in a sheltered corner. A steward with unusual imagination and eloquence said to me encouragingly "Marvellous, isn't it; the ragings of nature and man triumphant over them". Well, triumphant was not quite the word I should have used to describe my innermost feelings at that moment. (*Laughter.*) But, of course,

Annual Dinner

he was quite right. It is the experiences which one has had at sea that makes one appreciate those wonderful qualities of our seamen. They derive from tradition and experience, constant vigilance and that contest with the powers of nature and sometimes, alas! with the powers of man—confidence, alertness, judgment, and, above all, decision. You may remember that when someone expressed surprise at the goodness of the sermon preached by a parson in the condemned cell, Dr. Johnson replied: "Depend upon it, sir, when a man knows he is to be hanged in a fortnight it concentrates his mind wonderfully!" (*Laughter.*) Of course, that is an extreme case, but danger is a great quickener of comradeship and of the mind.

It has been my good fortune in years gone by to have worked both with the Royal and Merchant Navies, and to see those qualities at first hand. I have many happy memories of their friendship and comradeship, and I am sure that my experience must be shared by all our hosts this evening.

My happiest memories, perhaps, are of a fishing port where I was responsible for the equipment. I spent many days watching trawlers come in, discharge, refit and go out again. I got to know them and learnt their problems so as to make their turn round quicker and more efficient. They were grand fellows and their little ships do a grand job both in peace and in war. I like to think that their task is a little easier today when they are guided to the shoals of fish by Asdic, and this brings me to my final thought.

War is a great quickener and it was the partnership of the sailor, the engineer and the scientist which changed so profoundly modern naval warfare. It was that partnership which enabled them to anticipate, counter and destroy the weapons which were used against us. There was the harnessing of the electron and radar which practically eliminated fog and darkness, and gave us servo-mechanisms, replacing the slow reaction time of man by action in micro-seconds.

Let you should think that I have lost the perspective of man and machines, let me quote some lines by that great naval poet, Admiral Hopwood:—

"Now, there may be 'too much Nelson', for the times have changed since then,

But as long as Man is human we shall have to count on men;

Though machines be ne'er so perfect, there may come a day perhaps,

When you find out just how helpless is a heap of metal scraps".

In that partnership of which I have spoken, which was so vital to our victory, Lord Fraser, whose name I have to couple with this toast, played a great part. (*Applause.*) He was Controller of the Navy in those critical years 1939 to 1942 when it was so essential that the new tonnage should be equipped with all the latest devices. I know from my friends how sympathetic he was to scientists and technicians, and how helpful he was in seeing that their ideas were put into action. He had the unique experience of controlling the design and building of the ships which he commanded successively as Commander-in-Chief of the Home Fleet, as Commander-in-Chief of the Eastern Fleet, and Commander-in-Chief of the Pacific Fleet. What a wonderful record. (*Applause.*) His title reminds us of that decisive action off the coast of Norway when the *Scharnhorst* was finally destroyed. As First Sea Lord he directs the destiny of the Royal Navy, and with his unequalled experience and with his human touch, in what safer hands could it lie?

I give you the toast "The Royal and Merchant Navies of the British Commonwealth" coupled with the name of the First Sea Lord, Admiral Lord Fraser of North Cape. (*Prolonged applause.*)

ADMIRAL LORD FRASER OF NORTH CAPE, G.C.B., K.B.E., in response, said: I am sorry that you have left out one of my titles which is a Doctor of Civil Law! (*Laughter.*)

Anyone who has had the privilege to witness the events of the last few days, and who has managed to survive, cannot

fail to have been impressed by the power, the dignity and the traditions of the British Empire. (*Applause.*) By "power" I mean power to influence and to guide and not power to oppress.

When I was at the State Banquet the first night, there was the big table in the Throne Room, the two great thrones behind where the King and the President of France were sitting, floral decorations of unsurpassed beauty, the gold plate showing all the craftsmanship of the past, and an atmosphere of dignity and peace which will always remain in the memory of anyone who was there. Guildhall, where those ancient ceremonies were carried out, the Lord Mayor wearing his badge of office, a very beautiful badge studded with diamonds which the Lord Mayor of London has worn since the days of Queen Elizabeth, saw the next great banquet. Then to the French Embassy with its Sevres china, tapestries, and the art of French cooking and wine making. From there to the Royal Naval College at Greenwich where, with the usual naval tradition and precision, a very great occasion was celebrated.

At the same time as the President was taking the salute of the Royal Marine guard, a great merchant ship went down the river, probably on its voyage to some distant shore, waving its greetings as it passed. All those things affected me a great deal at Greenwich, because in my young days it was the first place at which a young naval officer was introduced to the ways of learning. My colleagues Sir Stanley Goodall and our new Engineer-in-Chief, Vice-Admiral Maxwell were, about this time, forty years ago, fellow students of mine.

It is all those things that the rock of ages on which our house is so firmly built rests, and let no-one try to split that rock asunder. (*Applause.*)

Perhaps the greatest consideration of all in these last few days has been the watchword "Nothing but the best", and that, after all, is the watchword of our country for the Royal Navy and for the Merchant Navy. We cannot compete in mass production with some of our great friends across the ocean, but there is no doubt in this country we have the quality, the brains, the science and the craftsmanship which can compete with anyone in the world. (*Applause.*) When I say "in this country" I do, of course, include those great Commonwealth dominions which, after all, may not necessarily have mechanised industries, but grain, wool, mutton, tea, and jute require as much brains and much harder work than many other things.

In this great producing industry everyone takes a part; but there is one small section of the producers about which I would just like to say a word, and that is management. Management must be efficient. A great responsibility rests on any leaders as I know myself, as I know Lord Tedder knows, as head of that great Air Force of ours, as I know your Chairman knows, whose great firm has always done such good work for the service. It is a great responsibility for the welfare of their men, and very often for the lives of their men, and as in the services it is up to every section of the community to give that management all the encouragement and the respect which it so fully deserves. (*Hear, hear.*)

The Royal Navy and the Merchant Navy grew up together hundreds of years ago when you could not distinguish the Merchant Navy brigand from a Royal Navy pirate. (*Laughter.*) Now the pirate has disappeared and the brigand remains!

During a war, I suppose, there is one great naval operation which commences as soon as war breaks out and finishes when the war ends, and that is the convoy. The convoy is a combined operation of the Royal Navy, the Merchant Navy and the great maritime air forces to scour the seas for us, and it is that comradeship which has grown up in the war which we hope will never cease to exist. (*Applause.*)

We have recently established the Royal Naval Reserve again, and the Merchant Navy was rather frightened that we should steal all their chaps when they wanted them; but I think that we got over that difficulty and it now goes on. In both our services, however, there is one other party without whom we should never get anywhere, and you can guess that I refer to the marine engineers. We must have more speed but

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at a reduced cost, and it is in that direction that the marine engineers have a job to do. As you know, there were many transports in my Russian convoys, and whenever there was a seven knot merchant ship in any convoy my heart sank! We are going on to gas turbines and many other things in which I think our Engineer-in-Chief leads the way, and my only slight criticism of you tonight would be that you are rather slow to follow! I am quite sure that after my day we shall leave the present age and enter the atomic energy day. There is no doubt about it to my mind. It may lie far ahead; I cannot say; but we must keep that very much in our minds.

Before I conclude I should like to say one thing about Lord Alexander. He is a man who has devoted a great deal of his life to the Royal Navy. I have had many dealings with him, and I know his love of the Royal Navy; and whatever your political persuasion may be, we in the Royal Navy are very grateful to him for his interest in us and in the Merchant Navy. (*Applause*).

May I thank you very much for your reception this evening, for the very distinguished company, for all the research and development you are now going to undertake, and for the very nice speech of welcome made by Sir Harold Hartley in proposing our health. (*Prolonged applause*).

SIR STANLEY V. GOODALL, K.C.B., O.B.E. (Vice-President, Institution of Naval Architects) in proposing the Toast "The Institute of Marine Engineers", said:—

When I was invited to propose this toast of the Institute of Marine Engineers I felt highly honoured, and I was also pleased personally, because this year I celebrate the jubilee of my entrance into the profession of marine engineering. (*Applause*.) I did not stay in it very long! (*Laughter*.) Perhaps you will think that thereby I displayed my wisdom, but by that time I had realized that I had an ineradicable fault which unfitted me for the job of a sea-going engineer. I was one of the world's worst sailors!

Your Secretary kindly sent me a copy of your annual report, and I was pleased to see that you are taking a great interest in the training of sea-going engineers. It made me think of the time fifty years ago when I commenced my training. The training of a naval engineer then and the training today are two entirely different matters. It makes my mouth water when I hear of all that is done for the young naval engineer today. In those days we were left to a certain extent to train ourselves. We were allowed a great deal of freedom, which implied freedom to go to the devil, as well as freedom to develop one's own self-reliance; and, after all, there is much to be said for that system of training. I should like to put this problem to your committee that deals with training. It is this:—"educational and technical qualifications, important as they are, are not everything".

The thought that fifty years ago I entered this profession brings to my mind a vista of progress which you have achieved in half a century. I remember the first trials of a battleship which I attended, when there were cylindrical coal-fired boilers, and old push-pull engines which, when pressed to the utmost, gave us a full speed of about 16 knots. The last battleship in which I was at sea achieved a speed nearly twice as great.

I spent a great deal of my early days with coal-fired cruisers, and I remember in particular that trial when it was not permitted to use oil fuel as an auxiliary. Needless to say, I went into the boiler rooms as little as possible! But I had to measure the deflexions of the bulkheads as they heated up, and to see that the watertight doors worked; and if Hell is worse than the stokehold of such a cruiser under such conditions, then my advice is seek the Kingdom of Heaven! (*Laughter*.) Contrast that with an experience I had a few years ago when I stood in the boiler room of a modern destroyer where a boiler was sending out 20,000 stalwart horses and all was calm and bright.

In those days coal and coal stowage were the bugbear of the naval architects, and I have no doubt they were the bugbear of marine engineers. I remember one of your distinguished Past-

Presidents telling me that the battle hymn of the battle cruiser squadron in the first world war started with the words "Coaling, Coaling, Coaling"! (*Laughter*.) I do not know how true that is, but I can tell you this from my own experience, that on one of the trials of such a cruiser the programme did not work out as planned, and we had to return to harbour to coal. It was a blustery dry day, and some fool opened the door on the windward side during the coaling operation, when the cook was just preparing the sweet for luncheon. He called the attention of the steward to the mess, and the steward, without batting an eyelid, went into the wardroom and altered the menu from "Apple tart" to "Blackberry and Apple tart"! (*Laughter*.) That is a little picture of the progress that you have achieved in fifty years in the amenities of life at sea as well as in technical matters.

What will you achieve in the coming fifty years? Some remark has been made already about atomic energy. I remember twenty-five years ago speaking in a discussion when one of your distinguished Past-Presidents was in the Chair and I said that we naval architects looked forward to the day when the engine room complement consisted of one man who was chucking atoms astern! That was a wild flight of the imagination only intended as a leg pull, and as such it succeeded; but when I think of the possibilities which you face during the next fifty years, I feel thrilled, and I should like to think that in spirit, in fifty years time, I may be here to learn whether your achievements of the coming fifty years have surpassed your great achievements in the first half of this century.

In reading your report I was greatly concerned to notice the interest which you take in research. During my retirement (so-called) I have given a good deal of time to the British Welding Research Association, but research is not the be-all and end-all of our existence. We are equally concerned to see that industry applies, as quickly as possible, the results of that research. One distinguished marine engineer put it well when he said to his principal scientific officer "Inspiration is all very well; but I want perspiration too".

There is one word of which we have heard a great deal during the past three weeks, so much so that I got tired of hearing it. It is the word "planning". Little was said about execution. We know that in ordinary circumstances the best laid schemes of mice and men can "gang agley"; they certainly will if planners do not take into their counsels the practical men who have to turn thoughts into action.

As Chairman of the Institution of Naval Architects I must say how greatly we have appreciated the closer liaison with you and your Institute. It commenced with the formation of the Joint Junior Branch for the Southern Region, and I should like to say what a debt we owe to Engineer-Captain Graham. (*Applause*.) Joint papers which are read before the two Institutes, give authors a wider audience, and the discussion is much more comprehensive. We have also the Joint Policy Committee in which we have discussed such matters of common interest as education and qualifications for national certificates.

We now have your co-operation in considering the effect of the present tonnage measurement laws on the efficiency of ships. The fact is that you marine engineers have knocked for six the present tonnage laws with the result that naval architects and marine engineers cannot, in many cases, give ship-owners the type of ship best suited for their purpose because of the handicap of these tonnage measurement laws. It is high time that we got together and proposed a remedy for this serious state of affairs.

We are also working together for the success next year of the international conference of naval architects and marine engineers. I am confident that that conference will be a great success, since it will be backed by your enthusiasm and, I trust, by the necessary financial assistance!

With this toast I wish to couple the name of Sir Robert Micklem, whose work has been known to me for many years and has excited my respect and admiration. I will spare him further blushes and will ask you to rise and drink the toast

Annual Dinner

"The Institute of Marine Engineers" coupled with the name of Sir Robert Micklem. (*Prolonged applause.*)

The CHAIRMAN, COMMANDER SIR ROBERT MICKLEM, C.B.E., R.N.(ret) in response, said:—

On behalf of the Institute of Marine Engineers I am extremely grateful for the kindly comments which Sir Stanley has made about our Institute.

I should like first of all to apologise for the absence of the President of the Institute, Lord Rotherwick, who is on a business trip to South America and was therefore unable to be present. Last year when I was President I was also absent on a business trip and Sir Amos Ayre kindly deputized for me. However, your Council was determined to get their own back, and they did me the honour of asking me to take the Chair at this dinner this evening. (*Applause.*)

It is good to know that the relationship which exists between our Institute and the Institution of Naval Architects is so close and friendly, and surely it is to the advantage of everybody in our industry that this relationship should be so close. I think that this close association shows a considerable change of heart from what was the case a good many years ago. I notice in the proposed combined examinations for naval architects and marine engineers that naval architects are to be trained in heat generation. Well, a good many years ago I seem to remember the discussions between naval architects and marine engineers generated so much heat that no further training on this particular subject was necessary! (*Laughter.*) Things are different today, and I feel that that must be to the advantage of our industry as a whole.

Our Institute is a very flourishing concern. This year we have achieved an additional net increase of members of about 250, and when I tell you that over the past twenty-five years the membership of our Institute has gone up from under 3,000 to over 6,000, I think you will appreciate that the Institute is doing great work in training marine engineers. (*Applause.*)

The standard required today by marine engineers is steadily increasing, and the needs for economy and efficiency is leading to higher steam temperatures and higher pressures with all the attendant complications and difficulties. All this adds to the burden of the marine engineer and calls for a higher standard of learning and craftsmanship.

Similarly on the Diesel side the size is continually increasing, and problems calling for higher efficiency and economy extend the complications of the installation. Recent rapid development in the use of boiler oil in Diesels, in which

the members of our Institute have been playing such a prominent part, is a very important development in fuel economy, but it has to be paid for to some extent by additional complication and maintenance.

We are faced in this country with a grave shortage of highly trained engineers, therefore, the work of the Institute in producing and training such engineers is a matter which is, in my view, of great national importance.

I should like, on behalf of the industry, to thank the First Sea Lord for his encouragement and kindly remarks to management. I am sure that the way in which he put it will encourage us to spend a few of our hard earned pounds on research and development about which he is so anxious.

On that particular subject, I noticed in the paper the other day that a firm called Vickers had taken an interest in isotopes, and the Secretary of the company came to me and said "Will you explain to the Board why we have taken an interest in isotopes?" Having been trained in my very young days in the same school as the First Sea Lord, I said I would explain that I have not the faintest idea what they are for, but I am sure it is a most important development, and that the First Sea Lord would be delighted in our continued interest!

I had proposed to talk at some length on the subject of shipbuilding costs, but having shaken hands with the company here tonight I notice a good many of my clients and prospective clients are present, so perhaps discretion is the better part of valour! In any case, Sir Amos Ayre might give me a dirty look, so I shall simply confine myself to saying that everybody concerned with the industry is doing all they can to bring the cost down!

To our guests tonight I should like to say that we are extremely honoured by their attendance. (*Hear, hear.*) They are a large and distinguished company all of whom have many calls upon their time. The fact that they are here tonight proves to us members of the Institute that they are interested in seafaring matters and therefore in marine engineering. As this is the dinner of the Institute of Marine Engineers I think that I may be excused if I select one particular guest and offer him a special welcome. That guest is Vice-Admiral Denis Maxwell, who has recently succeeded to the high office of Engineer-in-Chief to the Fleet. I wish him on your behalf great success in the serious and difficult responsibilities which he assumes in that high post. (*Prolonged applause.*)

The proceedings then terminated.

Annual Dinner



Annual Dinner



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The Institute of Marine Engineers Guild of Benevolence

Minutes of Proceedings of the Sixteenth Annual General Meeting

The Sixteenth Annual General Meeting of the Institute of Marine Engineers Guild of Benevolence was held at 85 Minorities, E.C.3, on Wednesday, 19th April 1950, at 5.30 p.m. Mr. F. W. Youldon, Chairman of the General and Executive Committees, was in the Chair, and there were present twelve Members and Officers of the Guild.

The CHAIRMAN referred with regret to the small attendance, particularly in view of the Committee having decided to hold the meeting at 5.30 p.m. instead of 2.30 p.m. as on previous occasions, anticipating that the later hour would be more convenient to members and that a much larger attendance would result. He then proceeded to call upon the Secretary to read the Annual Report (see p. xxxi).

The HONORARY TREASURER next presented the Annual Accounts with the official Auditors' Report, and his own report as follows:—

"Our official auditors have submitted the accounts, copies of which, including their certified report, are in your hands.

Our accounts now come under four headings, i.e., Capital Account, The John H. Silley Memorial Fund, The James M. and Elizabeth C. Dewar Bequest, and Income and Expenditure Account, which I propose to deal with separately.

Capital Account

This has increased during the year from £26,671 to £27,144 17s. 6d. Donations have slightly increased from £348 to £385 19s. 0d. I would refer to two donors especially, viz.: The Cunard White Star Line who have donated £150 during the year, being their 18th and 19th donations and also Mr. J. Lamb who very kindly donated to the fund the £50 received by him as winner, last year, of the Akroyd Stuart Award. Life Membership subscriptions have dropped from £156 15s. 0d. to £88 10s. 0d.

The investment of capital funds stands practically the same as last year at £15,702 18s. 2d.

As I informed the Meeting last year a portion of the Ryde property had been taken over by compulsory purchase by the Ryde Corporation, as well as some of the properties at Croydon. Unfortunately these negotiations take a long time and although everything is settled as far as the Ryde property is concerned, we have not yet received the balance of the purchase price for the Croydon properties, as they are awaiting the sanction of the Minister of Health before completion.

The total capital invested in ground rents stands at £10,734 0s. 8d. and shows a return of 3½ per cent without taking into account the item of £424 13s. 3d. which the auditors have allowed for depreciation, bringing the value in the books to £10,309 7s. 5d. Actually this £424 13s. 3d. comprises two items received from the War Damage Commission of £129 8s. 8d. on the Ryde properties and £295 4s. 7d. on the Croydon properties; they were treated as capital receipts and used to form this reserve instead of being taken to the credit of revenue account.

John H. Silley Memorial Fund

The capital account of this Fund has been increased from £26,448 to £29,008 6s. 0d. Additional investments have been made during the year of £5,900 in 3½ per cent War Loan and you will note there is income tax recoverable amounting to £1,227 5s. 0d.

Reference has already been made in the report submitted by the Chairman and Secretary to the magnificent generosity of both Mr. H. A. J. Silley and Mr. B. L. Silley during the past seven years.

The James M. and Elizabeth C. Dewar Bequest

You will note the amounts included in the accounts as received to date, viz., £1,731 15s. 3d. This comprises monies received from the capital cash account of the estate of the late Mrs. E. C. Dewar. There will be a small balance to come when the estate is finally settled up, after payment of solicitors' costs and any other expenses.

The auditors have inserted a note showing the present-day value of the securities which are now in process of being transferred to the Institute. They take the view that the actual figures ultimately to be incorporated in the accounts should be the values as at the time of Mrs. Dewar's death. They will appear as such at a later date. A complete list of these securities has been printed and was circulated at the Annual Meeting of the Institute. Copies are available at this Meeting. They are valued as at March 1950 and amount to £18,400.

These securities are all being transferred into the name of the Institute of Marine Engineers as Trustees of the Guild of Benevolence. The dividends when received will be paid over to the Guild of Benevolence.

The transfers of these securities have all been completed, and the various bonds and share certificates will be coming through almost immediately. They comprise altogether forty-nine different stocks and shares. On the basis of the present dividends being paid they represent an additional annual income of £820 and show a return of 4½ per cent on the capital value.

You will therefore observe that the total bequest amounts approximately to £20,131 0s. 0d. on present-day values.

Apart from these funds we have had to provide for an annuity of £250 for Mr. Dewar's only grandchild, Iain Dewar Mackie. For this purpose the executors have purchased £8,333 6s. 8d. 1990-1995 3 per cent Gas Stock and arrangements have been made for this to be paid directly into the legatee's bank in London. At his death the capital will revert to the Institute for the benefit of the Guild.

James McKie Dewar was a very active Member of this Institute from 1913 until he died in 1944. He was a Member of Council for several years, Chairman in 1920-21 and a Vice-President from then until his death. As was stated at the conclusion of his obituary notice in our *TRANSACTIONS* 'he was held in affectionate regard by his countless friends in the marine engineering and shipbuilding world'. The Institute has had much to thank him for; he was ever ready to give helpful

Minutes of Proceedings of Guild of Benevolence Annual General Meeting

advice and counsel at any time, as those who knew him can personally testify.

Revenue Funds

Our investments under this heading are the same as last year with the exception that we have purchased a further £800 in 3½ per cent War Loan at a cost of £825 19s. 0d. The total value of our investments in Revenue Funds is £5,207 9s. 4d. against £4,381 last year.

Unfortunately, owing to heavy depreciation in Government securities during the past year the total market value of our investments is reduced by approximately 7¼ per cent. At the corresponding date last year the market value was approximately 2 per cent above the values standing in our accounts, thus showing a real depreciation (as compared with last year's accounts) in the market value of stocks (which are all Gilt Edged) of 9¼ per cent. Fortunately this does not affect the income receivable and this continues to increase. Incidentally, market values have appreciated somewhat during the last month.

You will note that the auditors show the current account at Barclays Bank as being overdrawn by £519 11s. 10d. This is correct from a book-keeping point of view though as a matter of fact at the closing of the books on the 31st December there was a cash balance on revenue account of £234 5s. 10d. and on capital account of £275 8s. 10d. The accounts show an overdraft because there were bank balances on our capital account of £753 9s. 11d., The James M. Dewar Bequest of £255 9s. 3d. and The John Silley Memorial Fund of £20 7s. 4d.—a total of £1,029 6s. 6d.; after deducting the overdrawn amount of £519 11s. 10d. there are left the cash balances referred to above.

Income and Expenditure

It is surprising to note that annual subscriptions have dropped by £56 from £482 in the preceding year to £426 last year.

The gross income from dividends, bank interest on deposit, and rents has increased from £1,666 to £1,849 7s. 2d. Thus the net increase from all sources over the previous year is £127.

We have increased the amount distributed by way of relief by £200, still leaving a balance of £390 13s. 0d. of income over expenditure during the year. Fortunately the state of the fund is such that we can afford to be more generous with really deserving cases, always providing that we can assist without the recipient suffering any loss of pension from Government sources.

Finally, you will appreciate that the total funds standing to the credit of the Guild amount to the magnificent sum of £82,620, truly a fine monument to the founder of the Guild of Benevolence, Mr. John Silley. If he were here, he would be the first to thank the many who have worked and helped so triumphantly to this end.

In concluding, I think it only right that I should make a special reference to Miss Reed, who is retiring very shortly and will be leaving us at the end of next month. As you know, she has been responsible for the Guild accounts and has taken a great personal interest in the affairs of the Guild. She has carefully studied every individual who has come to us for help and has, during the short time she has been with us, worked indefatigably, not only in the interest of the Guild but in the interest of those whom we have had the privilege of helping. We wish her all that she would wish herself and trust that she will have many years in which to enjoy retired ease and comfort".

MR. S. G. CHRISTENSEN expressed appreciation of the Report and Accounts and said that he felt this appreciation would be shared by the absent members. What impressed him

most was the amount of relief which had been granted by the Guild and that it has cost so little to administer. That reflected the good work of the Committee and he had much pleasure in proposing that the Report and Accounts be adopted.

MR. G. MANSON, in seconding Mr. Christensen's proposal, referred to the drop in subscriptions as compared with the previous year and suggested that all members of the Guild should endeavour to enlist new members.

The adoption of the Report and Accounts was carried unanimously.

The HONORARY TREASURER, Mr. A. Robertson, referred to his having proposed the election of Mr. Youldon as Chairman of the General Committee at the Annual Meeting last year. He felt that in now proposing Mr. Youldon's re-election for a further year he was doing the right thing. Mr. Youldon had devoted himself with arduous care and attention to the work of the Guild and he (Mr. Robertson) could tell members present from his own experience that Mr. Youldon personally investigated every case which came before the Committee. They could be perfectly sure that under his Chairmanship the administration of the Guild would be carried on satisfactorily not only from the point of view of the members, but from that of persons applying for relief. It was necessary to investigate these applications very thoroughly and he could assure the members that Mr. Youldon exercised the utmost care in all cases. This was most important, because although the Guild at the present time had ample money to distribute, they must distribute it wisely. He had much pleasure in proposing Mr. Youldon's re-election.

MR. A. F. C. TIMPSON seconded this proposal, *which was carried unanimously amid acclamation.*

MR. YOULDON expressed his appreciation of being asked to continue in office for another year. He said that this work was to him really a labour of love. As Mr. Robertson had said, every case was dealt with with the greatest care, but he would add, with the greatest sympathy towards the applicant, and the relief was consequently given understandingly and as generously as the Committee could afford.

The CHAIRMAN, on behalf of the General Committee proposed that Mr. T. A. Crompton (Vice-President) and Mr. G. H. L. Owen (Member of the Guild) be re-elected as members of the General Committee for the ensuing session, and that Mr. W. R. Harvey (Member of Council) be elected as a member of the General Committee, to fill the vacancies occurring by rotation or by resignation.

This proposal was duly seconded and carried unanimously.

MR. A. F. C. TIMPSON said that, as they knew, the General and Executive Committees of this Guild worked quietly and unobtrusively. Nobody saw much of what they did, but the result of their work was evident in the Annual Report. It was clear that every case of real need was attended to very carefully, and that relief was given where required. He had much pleasure in proposing a very hearty vote of thanks to the General and Executive Committees for their last year's work, and he included the Secretary, Mr. Curling, and Miss Reed, both of whom were devoted servants of the Guild.

The CHAIRMAN, responding, said that he would like to add his personal thanks to the staff.

There being no other business the meeting then terminated.

Sixteenth Annual Report of the General Committee

During the twelve months ending 31st December 1949, the Executive Committee has dealt with all applications from marine engineers or dependants of marine engineers qualified for such help.

MEETINGS OF COMMITTEES

Since the date of the preceding Report the General Committee has held four meetings and the Executive Committee seven meetings.

APPLICATIONS FOR RELIEF

A summary of the cases dealt with between 1st January and 31st December 1949 is given on p. xxxv. In forty of the cases relief was continued from the preceding year. Letters of appreciation received by the Committee from the recipients of relief afford continual confirmation of the value and timeliness of the Guild's assistance.

MEMBERSHIP

Nine Life Members and thirteen Subscribing Members have been elected during the year. Allowing for losses by death and resignation, the total membership of the Guild at 31st December 1949 is 234 Life Members and 463 Subscribing Members. Of the latter 182 covenanted to continue their subscriptions for seven years, thus affording a considerable addition to the Guild's income without extra cost to themselves.

THE JOHN SILLEY MEMORIAL FUND

In November last the General Committee sent letters of grateful appreciation to Mr. H. A. J. Silley and Mr. B. L. 30th March 1950

Silley on the completion of their very generous donations of £7,000 and £3,500 respectively to the Guild of Benevolence. These gifts have been a major contribution to the assets of the Guild, and have enabled the creation of a fund by means of which much has already been done to alleviate hardship amongst marine engineers, their widows and dependants.

The present very firm financial basis of the Guild is directly attributable to the donors' father, the late Mr. John Silley, and the Committee feel that no finer way than the creation by his sons of the John Silley Memorial Fund could have been found to perpetuate their father's example in this respect.

The Council of the Institute associated themselves very heartily with the above expressions of appreciation.

THE JAMES M. DEWAR MEMORIAL

The division of the late Mrs. Dewar's estate was only completed shortly before the date of this Report. The matter will be fully dealt with by the Honorary Treasurer in his report.

The Committee, however, desire to place on record their grateful thanks to Mr. Robertson for the work that he has done during the past five years on behalf of the Guild, as an Executor of Mrs. Dewar's will.

F. W. YOULDON,
Chairman of General Committee

B. C. CURLING, *Secretary*

DONATIONS TO

THE INSTITUTE OF MARINE ENGINEERS GUILD OF BENEVOLENCE

From the date of foundation 2nd August 1934 to the 31st December 1948

	£	s.	d.		£	s.	d.
Abell, Sir Westcott S., K.B.E.	5	0	0	Beldam, C. A.	105	0	0
Achille Serre (Employees)	4	0	0	Bennet, J.		5	0
Adams, George (Legacy)	100	0	0	Black, J. D. (4 donations)	2	11	0
Adams, George (Trustees)	12	10	0	Blackledge, R. S.			12
Aitken-Quack, E.	5	5	0	Blundells and T. Albert Crompton and Co., Ltd. (6 donations)	63	0	0
Aiton and Co., Ltd.	10	10	0	Booty, M. J. (7 donations)	3	13	6
Akman, O. M. (6 donations)	5	6	0	Box in Hall	1	4	7
Alfa-Laval Co., Ltd.	5	5	0	Bridges, F. W. (Legacy)	100	0	0
Allen, W. H., Sons and Co., Ltd. (2 donations)	126	0	0	M.V. <i>Brisbane Star</i> (Captain and Officers' Fund)	1	1	0
Alton, W. A. (4 donations)	11	11	0	British India Steam Navigation Co., Ltd.	750	0	0
Anglo-Saxon Petroleum Co., Ltd.	1,000	0	0	British Power Boat Co., Ltd.	1	1	0
Annal's Trust	2	2	0	British Thomson-Houston Co., Ltd.	25	0	0
Anonymous donors	126	10	0	Brown, A. and R., Ltd. (7 donations)	36	15	0
Archibald, W.	10	6		Brown Bros. and Co., Ltd.	52	10	0
Arundel, G. E. (2 donations)	1	1	0	Brown, F. T.		8	6
Ashton, J. H....	1	1	0	Brown, G. J.		10	6
Aston, J. Herbert, J.P. (2 donations)	2	2	0	Bruce, D. (2 donations)	6	1	0
Atlas Preservative Company	1	1	0	Bruce, J. W. (4 donations)	2	2	0
Australian Institute of Marine and Power Engineers	1	11	6	Buckton, W. W. (Legacy)	25	0	0
Auto-Klean Strainers, Ltd.	10	10	0	Burgis, F. M....	2	11	0
Babcock and Wilcox, Ltd.	105	0	0	Burrage, E. E. (6 donations)	5	12	6
Barr, H. (5 donations)	2	0	6	Burrow, N.			17

Annual Report of the Guild of Benevolence

	£	s.	d.		£	s.	d.
Butler, E. F. (4 donations)	2	14	6	Foster Wheeler, Ltd.	10	10	0
Button, W. A.	10	0	0	Fraser, J. M.	15	0	0
Calderwood, J., M.Sc. (2 donations)	4	2	0	Funnell, A. J. (3 donations)	1	11	6
Cameron, R. V.	1	1	0	Furness, Withy and Co., Ltd.	1,000	0	0
Cammell, Laird and Co., Ltd.	105	0	0	Galloway, J. H. (3 donations)	1	11	6
Campbell, A. K. M. (3 donations)	1	5	6	Gamble, F. D. M.	1	2	0
Cant, A. J. (4 donations)	3	3	0	General Electric Co., Ltd.	21	0	0
Carnaghan, J. T., B.Sc.	2	2	0	George, W. R.	10	6	0
Carter, H. D. (5 donations)	10	10	0	Gerard, A. J.	3	8	0
Chesterfield Tube Co., Ltd.	105	0	0	Gibson, A. T.	8	6	0
Christensen, S. G. (9 donations)	7	13	0	Gillies, W.	1	0	0
Christianson, W. A. (2 donations)	2	2	0	Glass, W. J. S.	1	5	6
Clark, A. W.	10	6	0	Gordon-Luhurs, Lt.-Col. H., C.M.G. (7 donations)	13	11	6
Clarke, Chapman and Co., Ltd.	500	0	0	Gorringe, H. M.	1	1	0
Clegg, A.	1	1	0	Gough, R. H. (6 donations)	6	6	0
Cleveland, E. G.	2	0	0	Graham, W.	18	0	0
Coffyn, Captain T.	5	5	0	Grant, W. C. (2 donations)	3	3	0
Cole, T. E. (2 donations)	9	9	0	Green, C.	10	6	0
Colinese, S. G. (8 donations)	9	16	0	Green, R. H.	100	0	0
Collacott, R. A., B.Sc., Ph.D. (2 donations)	5	5	0	Green, R. H. and Silley Weir, Ltd.	500	0	0
Collings, J. W.	1	0	0	Gregg, A. E. C. (5 donations)	5	16	0
Cooke, R. A. N.	10	0	0	Gregson, Capt.(E) W., M.Sc., R.N.R.	10	10	0
Cookson, F. R. C. (9 donations)	5	2	6	Grootenhuis, W. C.	1	1	0
Corr, D. J.	1	0	0	Guerin, W. R. (5 donations)	2	12	6
Cottrell, A. B.	10	0	0	Gullett, T. E. (6 donations)	21	3	0
Cowan, C. J.	100	0	0	Hall, J. and E., Ltd. (4 donations)	200	0	0
Craigmyle, Rt. Hon. Lord	105	0	0	Hampshire, C. J.	15	15	0
Crane Packing, Ltd.	10	10	0	Hannam, J. R.	1	2	6
Crew, F. J.	17	6	0	Harland and Wolff, Ltd.	250	0	0
Cross, A.	2	10	0	Harrington, W. A. (6 donations)	6	17	6
Cunard White Star, Ltd. (18 donations)	458	0	0	Harrison, F. J.	5	5	0
Darwins, Ltd.	10	10	0	Hart, N.	1	1	0
Davey, Paxman and Co., Ltd. (6 donations)	63	0	0	Harvey, A. (2 donations)	2	1	0
Davidson, Major General A. E., C.B., D.S.O., (5 donations)	9	12	8	Hastie, J. and Co., Ltd.	105	0	0
Davies, B. D.	15	0	0	Hawthorn, R. and W., Leslie and Co., Ltd.	250	0	0
Davies, F. S.	3	3	0	Heaton, J. A.	10	6	0
Delves, J. V.	3	3	0	Heenan and Froude, Ltd.	10	10	0
Denny, J.	1	12	6	Henderson, J. M. (2 donations)	1	11	6
Denny, Sir Maurice E., Bt., C.B.E., S.B.	100	0	0	Heriot, J. C.	19	0	0
Denny, Wm. and Bros., Ltd.	50	0	0	Higgs, H. A.	16	0	0
Dewar, J. M.	2	2	0	Hindmarch, T. (2 donations)	21	0	0
Dewrance and Co., Ltd.	26	5	0	Hornewood, Miss B. E.	2	2	0
Dodds, T. (5 donations)	2	5	6	Hood, J. E. V. (2 donations)	1	3	0
Dorey, S. F., C.B.E., F.R.S., D.Sc., Wh.Ex.	10	0	0	Hopes, T.	8	6	0
Drossi, H. H. R.	2	2	0	Hopewell, G. H. (3 donations)	31	0	0
Drummond, R. M.	13	0	0	Houston, W. C. (2 donations)	8	0	0
Drysdale and Co., Ltd.	105	0	0	Howden, James and Co., Ltd.	21	0	0
H.T. Dunera	5	5	0	Hunter, Mrs. R. A. (5 donations)	5	5	0
Dunster, W. (per F. W. Youldon)	5	0	0	Hunter, Sir Summers	2	10	0
Dwyer, J. J.	15	0	0	Hutchinson, G. H. M.	10	0	0
Eagle Oil and Shipping Co., Ltd.	105	0	0	Hutchinson, G. R. (7 donations)	107	15	6
East, A. S.	1	1	0	Hutchinson, M.	5	0	0
Elderton, A. J.	5	0	0	I.C.I. Metals, Ltd.	10	10	0
Ellerman and Bucknall Steamship Co., Ltd.	3	10	0	I.C.I. Metals, Ltd., Birmingham (Employees)	50	0	0
Ellson, J. (3 donations)	3	3	0	Imrie, W.	1	0	0
English Electric Co., Ltd.	105	0	0	Inchcape, Rt. Hon. Earl of	1,000	0	0
Evans, A. F.	3	3	0	Institute of Marine Engineers (12 donations)	1,576	4	11
Evans, A. R.	10	6	0	Jack, J. W. A. (2 donations)	15	0	0
Ewing, P. (2 donations)	20	10	6	Jackson, D. H.	10	6	0
Fairfield Shipbuilding and Engineering Co., Ltd.	105	0	0	Jennings, F.	10	6	0
Farmer, J. D., O.B.E. (2 donations)	8	0	0	Jones, F. M., B.Sc.	1	1	0
Federal Steam Navigation Co., Ltd.	500	0	0	Jones, H. S.	4	4	0
Ferring Local Savings Group (3% Defence Bonds)	15	0	0	Jordan, H. J.	5	2	0
Fielding, B. P.	1	1	0	Kay, J. M.	10	0	0
Firth, T., and J. Brown, Ltd.	21	0	0	Kennedy, R. S. (2 donations)	2	2	0
Fleming, S. W. C. (4 donations)	2	5	6	Kerr, W.	10	6	0
Folland Aircraft, Ltd.	10	10	0	Kincaid, J. G. and Co., Ltd.	105	0	0

Annual Report of the Guild of Benevolence

	£	s.	d.		£	s.	d.
King, D. H.	10	10	0	Pip	1	1	0
King George's Fund for Sailors (8 donations) ...	1,450	0	0	Pirie, H. L.	2	2	0
Kirkaldy, W. H. (4 donations)	14	6		Platford, A. N. (2 donations)	2	2	0
Kirkbright, G.	1	0	0	Pobes, J.	5	0	0
Klinger, Richard, Ltd.	21	0	0	Poli (Cartoonist at the Conversazione)	2	0	0
Krajewski, J. B.	1	1	0	Pollock, James, Sons and Co., Ltd. (2 donations)	10	10	0
Kuske, Z. (3 donations)	3	18	0	Porn, M.	10	10	0
				Powrie, R. P.... ..	10	6	
Lang, L. (3 donations)	1	17	0	Preece, Eng. Vice-Admiral Sir George, K.C.B. (2 donations)	6	6	0
Lang, W. V.	2	2	0	Preece, S. G.	10	10	0
Laurence Scott and Electromotors, Ltd.	21	0	0	Prentice, C. (4 donations)	3	12	6
Laws, W.	5	5	0	Preston, J. J. (4 donations)	6	14	4
Ledger, A. H.	2	2	0				
Lees, T. R.	3	3	0	Quarrell, A. P. (5 donations)	5	8	0
Leslie, R.	1	11	6	Quin, Park, Fleming Benevolent Committee	4	0	0
Lloyd's Register of Shipping (3 donations)	78	15	0				
Logan, A.	10	6		Raines, G. W. B. (4 donations)	1	10	0
Longmuir, T. W. (7 donations)	7	6	0	Ramsay, J. W. (4 donations)	10	18	0
Lovatt, G. H. V. (3 donations)	1	7	6	Rea, P. R.	11	3	
Lucky, S. F.	5	0	0	Reavell and Co., Ltd.	25	0	0
				Rebeck, Sir F. E., D.L., J.P.	25	0	0
Macdonald, T.	5	5	0	Reed, G. H.	10	6	
McIntosh, G.	10	0		Reid, F. H., B.Sc., Wh.Ex.	10	6	
McKie, H.	1	1	0	Richmond, Sir J. R., K.B.E.	1,000	0	0
McKinlay, R. D. M. (5 donations)	10	10	0	Riddell, A. M. (2 donations)	13	2	6
McLean, H. (5 donations)	6	18	0	Risoe, A.	6	0	
McLeod, L. A.	10	6		Ritchie, F. G. (2 donations)... ..	10	10	6
McPherson, J.	2	13	0	Roberts, W. H.	1	1	0
Manders, F. A.	10	6		Robertson, A. (6 donations)	26	5	0
Manganese Bronze and Brass Co., Ltd.	52	10	0	Robinson, E. F. B. (5 donations)	2	11	0
Marshall, P. J.	5	0		Robinson, J.	5	0	0
Martin, A.	1	0	0	Robotham, C.	10	6	
Mather, A. H.	10	6		Rogers, B. (2 donations)	3	11	0
Mather and Platt, Ltd.	10	10	0	Rooks, G.	1	1	0
Mathers, W. R.	10	6		Ross, D. B.	14	6	
Mees, E. E.	18	9	0	Routledge, J.	2	0	0
Mellor, W. (11 donations)	11	11	0	Roux, A. E.	6	10	
Middleton, J. D. (3 donations)	1	11	6	Royal Mail Lines, Ltd.	105	0	0
Middleton, W. J.	1	1	0	Rubery, Owen and Messier, Ltd.	10	10	0
Mitchell, J.	7	6		Rush, T. A. (2 donations)	1	1	0
Montgomery, J.	15	0		Ruston and Hornsby, Ltd. (2 donations)	42	0	0
Morgan, V. W.	1	1	0	Rutledge, H. N.	6	0	
Mosey, H. Y.	1	5	0	Ryland, E. T.	1	1	0
Mountstuart Dry Docks, Ltd.	100	0	0				
Mumford, N. (4 donations)... ..	13	8	0	Scott, H. (3 donations)	2	1	0
Mumford, N. (Legacy)	142	10	0	Scott's Shipbuilding and Engineering Co., Ltd.	105	0	0
Murray, A.	6	0		Sellex, J. E.	10	0	
Murray, John and Pilot Press, Ltd.	25	0	0	Serck Radiators, Ltd.	26	5	0
				Shaw, Savill and Albion Co., Ltd.	525	0	0
Naylor, H. (5 donations)	2	2	6	Shipmaster	1	0	0
Nelson, W. Lynn, O.B.E.	25	0	0	Shoebriidge, J.	10	0	
New Zealand Steam Ship Co., Ltd.	500	0	0	Silley, John H., O.B.E.	500	0	0
Nicholl, Com'r Sir Edward, K.B.E., R.N.R.	105	0	0	Simpson, Major P. A. M., R.E. (8 donations)	12	5	0
North Eastern Marine Engineering Co., Ltd.	100	0	0	Simmonds, M.	17	0	
				Sinclair, F. T.	10	6	
Orient Line, Ltd.	500	0	0	Skinner, D. B. (5 donations)	3	13	6
Ormiston, G.	5	5	0	Smith, A. F., Com'r(E)	2	10	0
Oswald, J. H.... ..	1	0	0	Smith, Eng. Com'r D. Hastie, R.N. (ret)	3	3	0
Owen, G. H. L. (3 donations)	3	3	0	Snell, J. (9 donations)	5	7	3
				Soanes, E. G. (2 donations)... ..	6	5	6
Painter, R. E.... ..	8	2		Somers, Walter, Ltd.	52	10	0
Parker, A. H.... ..	3	0	0	Soulsby, Sir L. T. G.	5	0	0
Parkin, F.	10	6		Spanner, E. F., R.C.N.C. (ret) (2 donations)	15	0	0
Parsons Marine Steam Turbine Co., Ltd.	100	0	0	Spanner, W. F., R.C.N.C.	1	0	0
Paszye, A., Dr. (2 donations)	2	18	11	Spanner, Mr. and Mrs. W. F.	2	10	0
Paxman, E. P., M.A. (Annual)	2	2	0	Speirs, H. J. (Legacy)	450	0	0
H.N.P.	1	1	0	Stanbridge, C. H.	10	6	
Peacock, J.	5	5	0	Stein, J. and Co., Ltd.	21	0	0
Peckham, R. A., in memory of Mr. O. G. Peckham	2	0	0	Step, A. G. (3 donations)	2	1	10
P. and O. S.N. Co., Ltd.	750	0	0	Stephen, Alexander and Sons, Ltd.	50	0	0
Petree, J. Foster	10	10	0	Stephenson, B. (2 donations)	21	0	0
Petters, Ltd.	21	0	0				

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	£	s.	d.		£	s.	d.
Stone, J. and C., Ltd.	25	0	0	Warder, E. J.	10	6	0
Strachan, R. R.	19	0	0	Watson, G. O.	2	2	0
Sulzer Bros. (London), Ltd. (2 donations)...	21	0	0	Watt, A.	10	6	0
Superheater Co., Ltd. (8 donations)	73	10	0	Watts, Fincham, Ltd. (4 donations)	8	8	0
Swanbrow, C. J. (5 donations)	5	5	0	Webster, D. G. (2 donations)	1	16	0
Swansea Members	5	5	0	Weir, Andrew and Co., Ltd.	1,000	0	0
				Weir, G. and J., Ltd.	1,000	0	0
Tait, W. A. (14 donations)	10	6	0	Weir, James (Trust Fund)	2,000	0	0
Thatcher, B.	5	0	0	Weir, Rt. Hon. Viscount, of Eastwood, P.C., G.C.B., D.L.	1,000	0	0
Thatcher, C. B.	6	3	0	Weir, J. G., C.M.G., C.B.E.	1,000	0	0
Thomas, J. K. (10 donations)	4	18	0	White, J. Samuel and Co., Ltd.	25	0	0
Thompson, John (Wolverhampton), Ltd.	21	0	0	Whitehall Technical Press	21	0	0
Thornycroft, John I. and Co., Ltd.	21	0	0	Whiteside, E.	5	0	0
Timpson, A. F. C., M.B.E.	1	1	0	Wight, R. B. (8 donations)	4	10	0
Train, J. T. (3 donations)	2	0	6	Williams, Mrs. B.	2	2	0
Trenchard, L. D. (3 donations)	3	2	0	Williams, G. B.	1	0	0
Tube Investments, Ltd.	25	0	0	Wilson, G. M. (bequest)	200	0	0
Tune, H. E. (2 donations)	1	0	6	Wilson, W.	10	6	0
Turnbull, F. (5 donations)	2	10	6	Wiltshire, E. F.	3	12	0
Tyrrell, H. R., Major, I.A.O.C. (3 donations)	11	12	0	Wood, F. (6 donations)	6	6	0
				Wood Lee (2 donations)	2	2	0
Vanston, J. J.... ..	100	0	0	Wren, C. W. Limpricht (3 donations)	4	4	0
Vickers-Armstrong, Ltd.	250	0	0				
				Yarrow and Co., Ltd.	52	10	0
Wailles Dove Bitumastic, Ltd.	26	5	0	Yarwood, A.	2	12	0
Walker, G. W.	10	6	0	Yorkshire Copper Works, Ltd.	26	5	0
Walker, J. C.... ..	10	6	0	Youldon, E.	10	0	0
				Youldon, F. W. (collecting box—6 donations)	6	3	0
Wallace, W. E. G. (4 donations)	1	7	6	Young, J. (3 donations)	3	3	0
Wallis, R. Pendennis, Ph.D., M.Sc., Wh.Ex. (6 donations)	6	6	0	Young, R.	2	6	0
Wallsend Slipway and Engineering Co., Ltd.	105	0	0				
Ward, J. (2 donations)	2	6	0	Zulver, C.	5	5	0

Donations from 1st January to 31st December 1949

	£	s.	d.		£	s.	d.
Anonymous donors	3	13	6	Harrington, W. A. (7th donation)	2	7	6
Black, J. D. (5th donation)	3	13	6	Harvey, A. (3rd donation)	1	1	0
Blue Star Line, Ltd.	25	0	0	Heaton, J. A. (2nd donation)	10	6	0
Blundells and T. Albert Crompton and Co. Ltd. (7th donation)	10	10	0	Hunter, Mrs. R. (6th donation)	1	1	0
Boxes in Hall	1	13	6	Hutchinson, G. R. (8th donation)	1	10	0
Brooks, E. H.... ..	5	5	0	Lamb, J.	50	0	0
Brown, A. and R., Ltd. (8th donation)	5	5	0	McKinley, R. D. M. (6th donation)	2	2	0
Burrage, E. E. (7th donation)	1	1	0	Manders, F. A. (2nd donation)	10	6	0
Butler, E. F. (5th donation)	1	0	0	Mees, J. M.	1	1	0
				Mellor, W. (12th donation)	1	1	0
Calderwood, J., M.Sc. (3rd and 4th donations)	4	6	0	Paxman, E. P., M.A. (6th donation)	2	2	0
Campbell, J. P.	5	0	0	Ramsay, J. W. (5th donation)	2	2	0
Cant, A. J. (5th donation)	1	0	0	Riddell, A. M. (3rd donation)	2	2	0
Carter, H. D. (6th donation)	2	0	0	Robertson, A. (7th donation)	5	5	0
Coleman, E. J.	10	0	0	Rooks, G.	1	1	0
Crew, F. J. (2nd donation)	17	6	0	Scott, H. (4th donation)	10	6	0
Cunard White Star Line (18th and 19th donations) 150 0 0	150	0	0	Serck, Radiators, Ltd. (2nd donation)	26	5	0
				Simpson, Major P. A. M., R.E. (9th donation)	1	0	0
Davey, Paxman and Co., Ltd. (7th donation)	10	10	0	Snell, J. (10th donation)	12	6	0
Davidson, Major General A. E., C.B., D.S.O. (6th donation)	1	16	4	Stephenson, B. (3rd donation)	5	5	0
				Tait, W. A. (15th donation)... ..	1	15	6
Earl, L.	7	0	0	Wallis, R. Pendennis, Ph.D., M.Sc., Wh.Ex. (7th donation)	1	1	0
Engineering, Ltd.	3	3	0	Ward, J. (3rd donation)	1	0	0
Engineers of the Floating Staff of the Pacific Steam Navigation Company	1	10	0	Wight, R. B. (9th and 10th donations)	1	0	0
				Wilson, W. (2nd donation)	7	0	0
Gordon-Luhrs, Lt.-Col. H., C.M.G. (8th donation)	1	1	0	Wiltshire, E. F. (2nd donation)	2	5	0
Gough, R. H. (7th donation)	1	1	0	Wood, F. (7th donation)	1	1	0
Guerin, W. R. (6th donation)	10	6	0	Wood, Lee (3rd donation)	10	6	0
Gumbrell, C. J.	2	2	0				
Gummer, E. G.	3	0	0				

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PARTICULARS OF THE CASES ASSISTED BY THE GUILD

from 1st January to 31st December 1949

Case No.	Age	Qualification	Amount of Relief Granted	Case No.	Age	Qualification	Amount of Relief Granted
1	71	Widow of former member of The Institute	66 10 0	127	60	Widow of former member of The Institute	10 0 0
3	82	Member of The Institute	119 0 0	128	78	Widow of marine engineer... (Christmas grant only)	1 10 0
6	68	Daughter of marine engineer	47 10 0	131	56	Widow of marine engineer...	34 0 0
8	69	Widow of marine engineer...	37 18 0	133	60 and 70	Daughters of former member of The Institute	84 5 0
13	53	Widow of former member of The Institute	70 10 0	134	80	Widow of former member of The Institute and Guild	30 0 0
44	71	Widow of marine engineer...	21 0 0	138	46	Widow of marine engineer...	50 5 0
47	69	Widow of marine engineer...	27 10 0	140	66	Widow of former member of The Institute	64 0 0
51	70	Widow of former member of The Institute	21 0 0	141	53	Daughter of marine engineer	38 5 0
58	72	Widow of marine engineer...	21 0 0	143	41	Widow of former member of The Institute	105 10 0
71	58	Marine engineer	53 10 0	144	57	Widow of former member of The Institute	66 10 0
72	70	Widow of marine engineer... (Christmas grant only)	1 10 0	145	63	Widow of former member of The Institute	61 6 0
76	70	Widow of marine engineer... (Christmas grant only)	1 10 0	146	69	Widow of former member of The Institute	66 10 0
80	70	Sister of former member of The Institute	61 10 0	148	41	Widow of former member of The Institute	53 10 0
85	76	Widow of marine engineer...	14 10 0	149	56	Member of The Institute	65 0 0
96	74	Widow of former member of The Institute	66 10 0	150	84	Member of The Institute	14 10 0
97	78	Widow of marine engineer...	17 10 0	151	59	Widow of marine engineer...	5 18 0
98	82	Marine engineer	14 10 0	152	51	Widow of former member of The Institute	25 0 0
101	83	Marine engineer	30 6 0	153	39	Daughter of former member of The Institute and Guild	25 0 0
103	51	Widow of marine engineer...	45 14 0	154	43	Widow of former member of The Institute	10 0 0
104	84	Marine engineer	1 10 0				
109	67	Widow of marine engineer... (Christmas grant only)	17 11 3				
114	76	Marine engineer	30 6 0				
120	60	Marine engineer	38 5 0				
123	49	Widow of former member of The Institute	82 6 0				
125	52	Member of The Institute	66 10 0				£1,786 5 3

LIST OF MEMBERS AT 31st DECEMBER 1949

Life Members

Adie, P. I.	Butler, H. J.	Davidson, A. E., Major-Gen., C.B., D.S.O.	Gordon, S. G.
Alexander, Claud	Butson, C. W.	Davis, Gordon, Lt.(E), R.N.V.R.	Grange, G. R., Lt. Col., D.S.O., M.C., B.Sc.
Allen, H. G., M.A.	Campbell, A.	Denny, W.	Grant, Sir Allan J., J.P.
Allen, Norman G.	Campbell, G. R., Sir	Dodd, C. G.	Grant, W. C.
Allen, Sir R. W., C.B.E., D.L.	Carson, W. D.	Dougan, A. S.	Greenfield, Eric
Allen, Rupert S.	Carswell, D. B., O.B.E.	Drossi, H. H. R.	Greig, K. E.
Allen, W. K. G.	Chamberlain, J. H., Comd. Engr., D.S.C., D.S.M., R.N.	Drysdale, Ian	Groom, R. W.
Alton, W. A.	Christensen, S. G.	Dunn, W.	Gummer, R. H.
Andrew, George	Christie, J. G.	Easthope, R. J.	Hamley, F. J.
Armstrong, Hugh	Clarke, R. T.	Espin, W. L.	Handley, C. E.
Aston, J. H., J.P.	Clough, E.	Evans, Frank S.	Hardy, J., O.B.E.
Atkinson, W. A. R.	Coates, W.	Farkas, A. D.	Harrison, W. N.
Austin, J.	Collins, W. H.	Farmer, J. D., O.B.E.	Hayward, S. G.
Bailey, W. H.	Conoley, C. W.	Ferguson, L. J.	Henderson, J.
Balmer, H. S.	Cormack, J.	Foley, Sir E. Julian, C.B.	Henderson, J. M.
Bedford, G. E.	Cowan, R. S.	Froggatt, L.	Hillier, H., O.B.E.
Berlie, R. S.	Crane, J. F.	Gamage, L. C.	Hindmarch, T.
Blair, D. E.	Crichton, A. E.	Gibbons, T.	Hoare, H. J.
Brettell, W. G.	Crompton, T. A.	Gillies, R. M.	Hoare, J. H.
Bruce, W. J. Willett, O.B.E., R.D., M.Eng., Eng. Capt. R.N.R.(ret)	Crookston, D. D.	Goldup, D. R.	Holly, R. J. W.
Burke, N.	Cuttle, H. H.		Hood, R.
Burrage, E. E.			Houlder, M. C.
			Houston, W. C.

Annual Report of the Guild of Benevolence

Hulbert, W.	Maudrell, H. B. H.	Ramsay, J. W.	Tait, W. A.
Hume, Crawford W.	Mearns, E. A.	Rebbeck, Sir F. E., D.L., J.P.	Taylor, G.
Hunter, Sir Summers	Mees, E. E.	Reed, G. Hoy	Taylor, Geo.
Hutchinson, G. R.	Mees, J. M.	Reid, A. N.	Taylor, T. N.
Imrie, W.	Mellor, W.	Rhynas, J. A.	Temple, J. L. V.
Jamieson, J.	Menzies, W. G.	Richmond, Sir J. R., K.B.E., C.B.E.	Thompson, H.
Johnson, John	Milne, J. A.	Riddell, A. R.	Thompson, S. J., Col., D.S.O.
Johnson, P. B., B.A.	Mitchell, P. G. Mylne	Riddell, T. C.	Thompson, N. E.
Jones, W. C.	Moore, C. K.	Ritchie, F. G.	Thompson, W. B.
Jones, W. H.	Morrison, S. A.	Robbie, D. R.	Thomson, E. A.
Kedzlie, J. E.	Moseley, O. H. G. K.	Roberts, F.	Thornycroft, Roger, Lt., R.N.V.R.
Kent, S. N.	Munchi, J.	Roberts, T. M.	Timpson, A. F. C., M.B.E.
Khambata, M. D.	Neill, John, B.Sc.	Robertson, A., C.C.	Trevorrow, J. H. L.
Kincaid, Randal G.	Nelson, C. B.	Roorda, F. A. W.	Turnbull, G. M.
King, F. V., Eng. Rea Admiral	Nelson, Sir George H.	Rowcliffe, C. R.	Upton, H. E., C.B.E.
King, W. C.	Nelson, W. L., O.B.E.	Rowell, H. B. Robin	Vanston, J. J.
Kirkwood, R.	Nevin, W. A.	Roy, L.	Vincent, R., Eng. Com'r, R.I.N.(ret)
Knipe, W. D.	Nicol, J.	Rundle, J. E.	Walden, G. E.
Knopp, L., M.Sc.	Norman, H. H.	Rutherford, H.	Wallace, W., C.B.E.
Lamb, John	Ormiston, George	Saul, W. H., Com'r(E), R.N.R.	Wallis, R. Pendennis, Ph.D., M.Sc., Wh.Ex.
Levick, R. S. H.	Owen, G. H. L.	Saunders, K. A.	Warwick, B., Captain
Lewer, L. J.	Parker, E.	Slater, J. B.	Watson, Edgar
Lewis, J. B.	Parker, G. Clayton	Silley, B. L., B.A.	White, W. F.
Llewellyn, R. J.	Parker, H. A.	Silley, G. F.	Whiteford, A. L.
Lowrie, J. C.	Parsons, Hon. Geoffry L.	Silley, H. A. J.	Wight, H. D.
Macdonald, T.	Payne, J. B. D.	Smart-Dagleish, G.	Williams, C. A. N., D.S.O.
MacKay, A. M.	Payne, J. E. M.	Smeaton, Robt., O.B.E.	Williams, H. D.
McCormick, A. P.	Peacock, James	Somers, Seth, J.P.	Williamson, J. C. G.
McIver, J. P.	Petter, R. C., Capt.	Soukup, C.	Wilson, G. H.
McLaughlin, B. A.	Pickering, G.	Soulsby, Sir L. T. G.	Wilson, P. W.
McLaughlin, Wm.	Pickthall, F. J.	Steele, W. R. Eng. Com'r, R.D., R.N.R.	Wiltshire, E. F.
McLean, H.	Platford, A. N., Lieut- Com'r(E), R.N.V.R.	Stein, Norman	Wyld, J., D.S.O.
McMenemy, W. H.	Plows, G. B.	Stephenson, B.	Wynn, O. E. B.
Maddick, W.	Pounder, C. C.	Strachan, R.	Youldon, F. W.
Maid, J. M.	Pover, A. J.	Swancoat, N. H.	
Marshall, J. S. Clayton	Preston, B. W.	Suffield, W. G.	
Martin, C. E.	Preston, J. J.	Sycamore, W. A.	
	Prentice, C.	Sykes, J. A.	

Subscribing Members

Aitchison, T. E.	Bird, A.	Cameron, J. D.	Crichton, John
Aitken-Quack, E.	Bjorck, C. E.	Campbell, H. V.	Crompton, T. A.
Akman, O.	Blenkinsop, W. Stafford	Carnaghan, J.	Cross, F.
Arnold, H.	Blower, E. R.	Carnaghan, J. T., B.Sc.	Curling, B. C.
Arundel, R. N.	Blyth, D. W., Com'r(E), R.N.R.	Carnegie, John	Davidson, C. A., O.B.E.
Ashby, F. C.	Boerke, H. T., Com'r(E), R.N.N.(ret)	Carnie, J.	Davies, I.
Atkins, F. M.	Booth, W. H.	Chamberlain, E. R.	Davison, B. H.
Atkinson, S.	Booty, M. J.	Chamberlain, F. A.	Davison, G. N.
Austin, G.	Bowes, E.	Champness, G. T.	Dean, N.
Back, V. W.	Bowie, S., B.Sc.	Chandler, W. J.	Delves, J. V.
Balbirnie, R.	Boyes, F. M.	Chapman, S. G., B.Sc.	Denny, James, Temp Lt.(E), R.N.
Barker, F. E.	Boyle, A. H., D.S.C.	Christianson, W. A.	Dick, J.
Barker, L. P.	Brady, H. W.	Clark, A. W.	Dick, W.
Barlow, R. C.	Brand, J. W.	Clark, F. D.	Dobinson, S. H.
Barnes, G. W.	Brown, J. P. H., Lt.(E), R.N.	Clarke, J. H.	Doel, H.
Barr, H.	Bruce, G.	Clifford, D.	Dorey, S. F., C.B.E., F.R.S., D.Sc., Wh.Ex.
Beal, R.	Büchi, A.	Coates, J. L., O.B.E.	Douglas, J. R.
Beckett, F. O.	Buckley, J.	Coe, A.	Drinkrow, R. W.
Beeby, W. F.	Bunyan, T. W., B.Sc.	Colbeck, O. A.	Dunlop, S. H.
Bell, Frank, P.	Burgess, A. D.	Cook, Stanley S., B.A., F.R.S.	Dwyer, J. J.
Bell, J. S., Lt.-Com'r(E), R.N.R.	Button, W. A.	Corns, F. A.	Dymott, D. G.
Bennett, T. A., B.Sc.	Calderwood, J., M.Sc.	Coslett, L. J.	Eales, F. R.
Bergner, A. E.	Caldwell, J.	Costigan, R., O.B.E.	Earl, Leonard
Bernard, H.		Coulthard, J. W., D.S.C.	
Beverton, H. D.		Cracknell, S. G.	
		Crane, C.	
		Crichton, W. F.	

Annual Report of the Guild of Benevolence

- Edmiston, J. G.
 Ellis, J. H., O.B.E.
 Ellison, E.
 Ellwood, W. J.
 Elordieta, V.
 Endert, D. C.
 English, R. H.
 Evans, Dewi, G.
 Ewart, W. D.
 Ewing, Peter
- Fay, N.
 Ferguson, J. G. S.
 Ferguson, W. J.
 Filshie, G., O.B.E.
 Findlay, D. N.
 Finnis, R. B.
 Firth, G. T.
 Fisher, A. H.
 Fleming, S. W. C.
 Flenk, H. A.
 Forbes, G. N.
 Forsyth, R. G., Eng. Capt.,
 O.B.E., R.N.
 Foster, E. C.
 Fothergill, H. C.
 Fowler, J.
 Fraser, L. D. F.
 Frayn, C. C.
 Freeman, S. B., C.B.E.,
 M.Eng.
 Friend, C. N.
- Garratt, E. A., O.B.E.
 Garratt, E. Carlton
 Geddes, A. S.
 Gelling, D. W.
 Gibson, A. T., C.B.E.
 Gilbertson, J. B.
 Gillespie, W.
 Given, J. G. C., Com'r(E),
 O.B.E., R.N.
 Glass, W. J. S.
 Glover, G. E.
 Goddard, J. Alan
 Goodwin, A. F.
 Gordon-Luhrs, H., Lt.-Col.,
 C.M.G.
 Gorringe, H. M., B.Sc.
 Gourlay, R. G.
 Graham, W. A., Eng. Capt.,
 O.B.E., R.N.R.
 Grainger, E. J.
 Greaves, B. B.
 Green, W. H.
 Gregson, W., Major, M.Sc.
 Grier, R. B.
 Gumbrell, C. J.
- Hampshire, C. J.
 Hanley, James
 Harbord, A. J. D.
 Hardcastle, C.
 Harding, R. W.
 Harms, D.
 Harvey, J. B.
 Harvey, R.
 Harvey, W. R.
 Hawkins, R. F.
 Hearnden, H. E.
 Heck, W. D., B.Sc.
 Hedger, A. J. W.
 Hellberg, C. Jack
 Henriques, W. Q., O.B.E.
- Herriot, J. C.
 Higgs, H.
 Hill, B. V.
 Hinman, J., D.S.M., E.R.A.,
 R.N.
 Hirschfield, S. B.
 Hoare, J. H.
 Hodges, A. H.
 Hogg, R. S.
 Holyoake, C. J.
 Homewood, A. C.
 Horrigan, D.
 Howarth, N.
 Howes, E. J. L.
 Hughes, E. D.
 Hughes, T., B.Sc.
 Humphreys, H. S.
 Hunt, S., Lt.(E), R.N.V.R.
 Hurley, H. G.
 Hussey, R. M.
 Hutchinson, G. H. M.
- Iliffe, R. G.
 Imray, W. N.
 Ingham, John F., Lt.(E),
 R.N.R.
 Irving, R. H.
 Irwin, E. B., M.B.E.
 Isaac, A. B.
 Isaac, G. J.
 Ismay, T.
 Jackson, H. E.
 Jackson, H. W.
 Jackson, R.
 Jackson, T. E.
 Jacobs, W. F.
 James, David A.
 Jefferies, F. H.
 Jenkins, David
 Jenkins, G. E.
 Jennings, F.
 Jespersen, H. S.
 Jewitt, D. E.
 Job, D. M.
 Jobling, A., F.R.A.S.
 Johnson, T. F.
 Johnston, P.
 Johnston, R.
 Johnstone, O.
 Johnstone, W. E.
 Jones, E. H.
 Jones, F. M., B.Sc.
 Joynson, W. J.
- Kennedy, A. C., Capt.,
 R.E.(T)
 Kennedy, R. E., Capt., R.E.
 Kent, L. G.
 Keymer, A. R., Lt. Col., I.E.
 Kimber, H. S. G.
 Kinder, R. N.
 King, D. H.
 Kirstein, I.
 Knap, H.
 Knapton, R.
 Krajewski, J.
- Lally, T. J.
 Lamb, W.
 Lang, L.
 Lang, W. Veysey
 Ledger, A. H.
 Lees, J. W.
 Leigh, L. C.
- Leitch, D.
 LeMesurier, L. J., Com'r(E),
 O.B.E., R.N.
 Lewis, C. V.
 Lightbody, A.
 Lightfoot, J. K.
 Ling, R. J. H.
 Lockey, H. T.
- Lockwood, F. H.
 Logan, A.
 Logie, John S.
 Longmuir, T. W.
 Low, D. W.
 Low, P.
 Ludlow, P. G.
- Macbride, D. J.
 Macintosh, A.
 MacIntyre, D.
 Mackegg, H.
 Mackenzie, J.
 Mackinlay, J. H.
 MacLeod, N. A.
 Macniven, H., M.B.E.
 MacPhee, A.
 Macvicar, J. K. W.
 McAuslan, W., I.S.O.
 McCall, J.
 McIlwaine, J. M.
 McIntyre, J. T., D.Sc., Ph.D.,
 Wh.Sc.
 McKay, L.
 McKendry, A. D.
 McKenzie, W. C.
 McLachlan, W. O.
 McNeill, S.
 McWilliam, R.
- Main, James
 Mair, A. A.
 Maitra, B. K.
 Mann, A. J.
 Mansfield, H. F., Lt.
 Com'r(E), R.N.R.
 Manson, G.
 Manson, P.
 Marsh, A.
 Martin, A.
 Masson, P. R.
 Mees, E. E.
 Merrick, R. H., Eng. Lt.
 Com'r, R.N.(ret)
 Middleditch, E. T.
 Middleton, I. D.
 Middleton, W. J. D.
 Miles, A. P.
 Mitchell, J. C.
 Mitchell, J. M., Eng. Lt.
 Com'r, S.R., R.N.
 Moffatt, C.
 Monks, F. B.
 Moore, A. E.
 Moore, W. L. S.
 Moralee, J. P.
 Morgan, A., Com'r(E), R.N.R.
 Morris, L.
 Morton, Robt.
 Mott, P. R., B.Sc., Sub.
 Lieut.(E), R.N.
 Muir, J. M.
 Murison, A. F.
 Murray, Alex.
 Murray, R. G., Com'r(E),
 C.B.E., R.N.
- Musker, H.
 Mussett, G. A., M.B.E.
- Neilson, J. B.
 Newton, H.
 Nicholls, C. E.
 Nicholson, H. J., Com'r(E),
 R.N.
 Nicholson, J. S.
 Nickels, S. S.
- Oates, A.
 Other, E., Eng. Lt. Com'r,
 R.N.
 Owens, P. R.
 Oxtoby, G. H.
- Palmer, J. E.
 Palmer, L. W.
 Parfitt, E. C.
 Parry, E. U.
 Parsons, J. T.
 Pattie, John
 Pearson, G. H.
 Pearson, J. D., B.Sc., Wh Sc.
 Pemberton, A. G.
 Penlerick, S. W.
 Peterson, H. K.
 Petter, R. C., Capt.
 Pigott, S. T.
 Pilmour, W. H.
 Pinkney, R. B.
 Pounder, G. D.
 Price, D. J.
 Pugh, F. H., Eng. Com'r,
 O.B.E., R.N.
 Purves, F. W.
- Radford, S. P.
 Rae, W. S.
 Rainie, R., M.C.
 Ramsay, C. G.
 Rawlings, P. H.
 Rea, P. K.
 Reader, R. S.
 Reason, G. P.
 Richardson, A. W. Capt.(E),
 O.B.E., R.N.
 Richardson, W. A., Lieut.(E),
 E.M.S.
 Rielly, J. B.
 Riseborough, W.
 Ritchie, Charles, Lieut.
 Com'r(E), R.N.R.
 Roberts, A. F.
 Roberts, E. A., Major, R.E.
 Roberts, J.
 Robinson, E.
 Robinson, J. C. S.
 Robinson, J. G.
 Robinson, M.
 Rogers, J. J.
 Rooks, G.
 Russell, Henry
 Rutter, J. E.
 Ryland, E. T.
- Sampson, W.
 Saunders, R. A.
 Scales, J. S.
 Scanes, J. J.
 Scobie, J. K.
 Scott, C. M.
 Scott, F. S.

THE INSTITUTE OF MARINE ENGINEERS GUILD OF BENEVOLENCE

Balance Sheet, 31st December 1949

1948	LIABILITIES				1948	ASSETS				
£	£	s.	d.	£	£	s.	d.	£	s.	d.
	Capital Account					Capital Funds				
	Balance at 31st December 1948	26,670	8	6		Investments				
	Life Membership Subscriptions	88	10	0		As valued on 2nd August 1934 :—				
	Donations	385	19	0		£1,654 18s. 5d. British Transport 3%				
26,671		27,144 17 6				Guaranteed Stock 1978/88 ... 1,515 14 0				
	James M. and Elizabeth C. Dewar Bequest					£500 Australia 3% Stock 1972/74 ... 505 12 6				
	Amounts received to date		1,731	15 3		£250 3½% War Loan ... 259 16 3				
	(Securities having an approximate present day value of £18,400 will be received from the Executors during 1950)					At Cost Less proceeds of Sales :—				
	The John Silley Memorial Fund					£2,711 17s. 10d. British Transport 3%				
	Balance at 31st December 1948	26,447	14	4		Guaranteed Stock 1978/88 ... 2,674 5 11				
	Receipts under Covenant	1,333	6	8		£7,100 3½% Conversion Loan 1961 ... 7,585 12 10				
	Income Tax Recovered and Recoverable	1,227	5	0		£985 3% Defence Bonds ... 985 0 0				
26,448		29,008 6 0			15,704	£1,667 12s. 3d. 3% Savings Bonds 1960/70 ... 1,672 18 4				
	Income and Expenditure Account					£500 3% Savings Bonds 1965/75 ... 503 19 0				
	Balance at 31st December 1948	5,925	16	6		(Market Value £14,377). 15,702 18 10				
	Excess of Income over Expenditure for the year	390	13	0		Freehold Ground Rents at Cost Less Sales :—				
		6,316 9 6				Ryde ... (£60 0 0 per annum) 1,499 19 5				
5,926	Subscriptions received in advance	£12	2	6		Croydon ... (£103 0 0 " ") 2,767 10 8				
18	Creditors	6	16	3		West Ham ... (£108 0 0 " ") 2,960 1 3				
5		18 18 9				Wimbledon ... (£6 2 6 " ") 161 0 0				
		6,335 8 3				Bowes Park ... (£6 0 0 " ") 155 16 2				
						Thornton Heath (£25 10 0 " ") 664 15 6				
						Ilford ... (£31 15 0 " ") 830 19 4				
						Rochdale ... (£70 0 0 " ") 1,693 18 4				
						10,734 0 8				
						Less : Depreciation Reserve ... 424 13 3				
					10,535	10,309 7 5				
					48	Income Tax Recoverable ... 29 1 4				
						Cash at Bank				
					384	Barclays Bank Ltd. Capital Account ... 753 9 11				
						Post Office Savings Bank ... 350 0 0				
						1,103 9 11				
						James M. and Elizabeth C. Dewar Bequest				
						Investments at Cost				
						£1,600 3½% Conversion Stock 1961 ... 1,476 6 0				
						(Market Value £1,504) ...				
						Cash at Bank				
						Barclays Bank Ltd. Capital Account ... 255 9 3				
						1,731 15 3				
						The John Silley Memorial Fund				
						Investments at Cost				
						£4,700 British Transport 3% Guaranteed Stock 1978/88 ... 4,634 16 9				
						£4,270 4s. 10d. 2½% Consolidated Stock ... 3,486 1 0				
						£1,100 2½% Defence Bonds ... 1,100 0 0				
						£750 3% Savings Bonds 1955/65 ... 776 9 0				
						£9,000 3% Savings Bonds 1960/70 ... 9,000 0 0				
						£2,000 3½% War Loan ... 2,043 10 6				
						£5,900 3½% War Loan ... 5,969 16 5				
						(Market Value £25,102). 27,010 13 8				
					21,041	27,010 13 8				
					3,455	Income Tax Recoverable ... 1,227 5 0				

REPORT OF THE AUDITORS TO THE MEMBERS OF THE INSTITUTE OF MARINE ENGINEERS GUILD OF BENEVOLENCE

We have examined the above Balance Sheet with the Books and Vouchers of the Guild and have obtained all the information we have required. The Accounts have been prepared in accordance with the requirements of King George's Fund for Sailors and in our opinion exhibit a true and correct view of the state of the Guild's affairs according to the information and explanations given to us and as shown by the books of the Guild.

WEST & DRAKE,
Chartered Accountants.

SARDINIA HOUSE,
52, LINCOLN'S INN FIELDS,
LONDON, W.C.2.
5th April, 1950.

Annual Report of the Guild of Benevolence

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£59,068	£64,220 7 0	£59,068

	Cash at Bank		
	Post Office Savings Bank	£750 0 0	
	Barclays Bank Ltd.—		
	Capital Account	... 20 7 4	
			770 7 4
1,952			29,008 6 0
	Revenue Funds		
	Investments at Cost		
	£788 2s. 2d. British Transport 3%		
	Guaranteed Stock 1978/88	... 777 3 4	
	£15 3% Defence Bonds	... 15 0 0	
	£1,500 3% Savings Bonds 1955/65	... 1,500 0 0	
	£1,582 7s. 9d. 3% Savings Bonds 1960/70	... 1,585 8 0	
	£500 3% Savings Bonds 1965/75	... 503 19 0	
	£800 3½% War Loan	... 825 19 0	
	(Market Value £4,966)		
4,381			5,207 9 4
	Ground Rents Accrued, less Commission for		
139	Collection	... 95 15 8	
—	Relief Grants Paid in Advance	... 57 11 0	
641	Income Tax Recoverable	... 542 8 10	
	Cash at Bank and in Hand		
	Post Office Savings Bank	... £950 5 6	
	Petty Cash	... 1 9 9	
			951 15 3
	<i>Less: Barclays Bank Ltd.,</i>		
	Current Account over-		
	drawn	... 519 11 10	
			432 3 5
			6,335 8 3
			£64,220 7 0

Annual Report of the Guild of Benevolence

INCOME AND EXPENDITURE ACCOUNT for the year ended 31st December 1949

1948	INCOME			
		£	s. d.	£
482	Annual Subscriptions	...	...	426 5 8
	Invested Property			
1,219	Dividends (Gross)	...	...	1,433 2 10
39	Bank Interest on Deposits	...	...	50 5 6
408	Rents	...	...	365 18 10
				1,849 7 2
				£2,275 12 10
				£2,148

1948	EXPENDITURE			
		£	s. d.	£
1,586	Relief Distributed	...	...	1,786 5 3
1	War Damage Contribution	...	...	—
	Administration			
27	Printing and Stationery	...	...	37 5 3
31	Postage	...	...	23 1 0
5	Audit Fee	...	...	5 5 0
—	Legal Expenses	...	...	15 15 0
85	Sundries	...	...	17 8 4
				98 14 7
1,735	Total Ordinary Expenditure	...	...	1,884 19 10
413	Balance, being Excess of Income over Expenditure for the Year	...	...	390 13 0
				£2,275 12 10

£2,148

James M. and Elizabeth C. Dewar Memorial Bequests

ESTATE OF JAMES M. DEWAR, DECEASED	Approximate Value	£ s. d.	ESTATE OF MRS. ELIZABETH C. DEWAR, DECEASED	£ s. d.	£ s. d.
British Government Stock				Brought forward	10,203 8 7
£300 3% Defence Bonds	300	0 0	British Government Stock		
£328 10s. British Electricity 3% Guaranteed Stock 1968/73	304	5 6	£600 3% Defence Bonds	600	0 0
£1,219 8s. 7d. British Transport 3% Guaranteed Stock 1978/88	1,071	11 6	£359 10s. British Electricity 3% Guaranteed Stock 1968/73	332	19 9
£180 4s. 6d. 4% Consolidated Stock	182	5 1	£565 British Gas 3% Guaranteed Stock 1990/95	492	19 3
£202 4s. 0d. 3½% Conversion Stock 1961 or after	184	15 2	(Formerly £400 South Eastern Gas Corporation Ordinary Stock)		
£1,815 15s. 9d. 3½% War Loan 1952 or after	1,652	7 4	£755 14s. 0d. British Transport 3% Guaranteed Stock 1978/88	664	1 5
Banks			£354 4% Consolidated Stock	357	19 8
240 Barclays Bank Ltd. "A" Ordinary £1 Stock Units	585	0 0	£600 3½% Conversion Stock 1961 or after	548	5 0
300 Barclays Bank Ltd. "B" Ordinary £1 Stock Units	1,027	10 0	£300 3½% War Loan 1952 or after ...	273	0 0
Breweries			Commercial and Industrials		
180 Cheltenham & Hereford Breweries Ltd. 7½% "A" Preference £1 Stock Units	247	10 0	£137 Associated Electrical Industries Ltd. 8% Prefce. £1 Stock Units	224	6 9
Commercial and Industrials			300 Gallaher Ltd. 6½% Cum. Preference £1 Shares	403	2 6
£300 Amalgamated Dental Co. Ltd. 5½% Preference £1 Stock Units	348	15 0	300 Horlicks Ltd. Ordinary 5/- Stock Units	390	0 0
£240 British Oxygen Co. Ltd. 5% 2nd Prefce. £1 Stock Units	276	0 0	60 Imperial Tobacco Co. (GB&I) Ltd. Ordinary £1 Stock Units	305	12 6
150 J. & P. Coats & Co. Ltd. 6% "B" Prefce. £1 Stock Units	195	0 0	182 International Tea Co.'s Stores Ltd. Ordinary 5/- Stock Units	160	7 9
150 J. Compton Sons & Webb Ltd. 7% Prefce. £1 Shares	201	11 3	330 Lever Bros. & Unilever Ltd. 7% Prefce. £1 Stock Units	468	3 9
2,400 Chadburns (Liverpool) Ltd. Ordinary 4/- Stock Units	285	0 0	150 McDougalls Trust Ltd. 5% Cum. Prefce. £1 Shares	166	17 6
300 Proprietors of Hays Wharf Ltd. 6% Prefce. £1 Shares	346	17 6	582 Savory & Moore Ltd. 5½% 1st Prefce. £1 Stock Units	600	3 9
210 International Tea Co.'s Stores Ltd. 7% "A" Preference £1 Stock Units ...	296	12 6	180 Sylko Crepe Paper Mills Ltd. 5½% Prefce. £1 Shares	146	5 0
£330 Lever Bros. & Unilever Ltd. 7% Preference £1 Stock Units	468	3 9	Financial Trust		
186 Manganese Bronze & Brass Co. Ltd. Ordinary 5/- Shares	174	7 6	£300 Thames House Estate Ltd. 3½% Debenture Stock	276	15 0
60 John Myers Ltd. Ordinary 10/- Shares	60	0 0	Oils		
Investment Trust			£135 Anglo Iranian Oil Co. Ltd. Ordinary £1 Stock Units	911	5 0
£300 Municipal Trust Ltd. 5% Preference Stock	273	15 0	£120 Anglo Iranian Oil Co. Ltd. 8% 1st Prefce. £1 Stock Units	192	0 0
Iron, Coal and Steel			Transport		
1,286 Cammell Laird & Co. Ltd. Ordinary 5/- Shares	401	17 6	£180 Lancashire United Transport Co. Ltd. 5½% Prefce. £1 Stock Units ...	180	0 0
Oils			Rubbers		
£58 Shell Transport & Trading Co. Ltd. Ordinary £1 Stock Units	181	5 0	180 Dunlop Rubber Plantations Ltd. 6% Cum. Prefce. £1 Shares	213	15 0
£300 Shell Transport & Trading Co. Ltd. 7% 2nd Prefce. £1 Stock Units ...	421	17 6	Waterworks		
Shipping			£200 Colne Valley Waterworks Ltd. 4% Preference Stock	188	10 0
£180 Coast Lines Ltd. 6% Prefce. £1 Stock Units	166	10 0	£90 Rickmansworth & Uxbridge Valley Waterworks Ltd. 5% Debenture Stock 1928	100	2 6
150 Union Castle Mail Steamship Co. Ltd. 6% Prefce. "A" £1 Shares	180	0 0			
Waterworks			Cash already received	8,196	12 1
£270 South Staffordshire Water Works Ltd. 10% Max. "A" Ordinary Stock	370	11 6		1,731	15 3
Carried forward	10,203	8 7		<u>£20,131</u>	<u>15 11</u>

Annual Report of the Guild of Benevolence

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|--|--|--|--|
| Scott, H. B.
Scott, H.
Scullard, G. T. B.
Searles, H. S.
Sharp, J.
Shaw, David
Sherborne, H. F., M.C., M.A.
Shingler, S. A.
Simmonds, M. O.
Sims, P. J. S.
Sinclair, F. T.
Slagter, H. J.
Smethurst, J. M.
Smith, A.
Smith, F. W.
Smith, J. P.
Smith, J. M.
Smith, S.
Smith, S. A., M.Sc.
Smith, W.
Smith, W. H.
Snowwell, B.
Spanner, E. F., R.C.N.(ret)
Speck, George
Speechly, C. C.
Speechly, P. C.
Stell, G.
Step, A. G. | Stephens, E. R.
Stevens, A. E.
Stevens, E. A.
Stileman, J.
Strachan, R. R.
Straughan, J. W. S.
Strong, W. H.
Suddes, T. E.
Szwede, Z.

Taylor, A., Lt.(E), R.N.R.
Taylor, H. L.
Taylor, W. A. Trevor, M.B.E.
Teasdale, L.
Tedford, W. J.
Telfer, T., B.Sc.
Tennant, W.
Thompson, F.
Thompson, G., M.Eng.
Thompson, John
Thomson, J. O.
Thomson, T.
Thornton, J. W. N.
Timpson, F. W.
Traill, A. P., Wh.Sc.
Train, G. R.
Tunnell, H. G. | Tweedy, W. N.

Unthank, G. R.

Varian, A. H.
Vella, D.
Vose, Henry J.
Vose, W. A.

Waddle, W.
Wadley, H. U.
Walker, A. J.
Walker, C. A.
Walker, H. D.
Walker, J. C.
Walker, T.
Walters, L. L.
Ward, E. W.
Warwick, F.
Watson, A. H. Scott
Watson, G. O.
Watson, G. Ridley, B.Sc.
Watson, J.
Watt, A.
Watt, Alex.
Way, C. T.
Westall, W. F.
Wetherall, R. H. | Whalley, E.
Whyman, W. M., Eng.
Rear-Admiral, C.B., C.B.E.
Wheadon, H. J.
Whiteley, C. W.
Whitelock, J. K.
Whitty, S. B.
Whyte, W.
Williams, C.
Williams, W. T., O.B.E.,
B.Sc., Wh.Ex.
Williamson, A. S.
Williamson, W. H.
Wilson, A. H.
Wilson, A. J.
Wilson, R. H.
Wilson, R. T.
Wilson, T. S.
Winch, H. H.
Windrim, R.
Winton, J. A., M.B.E.
Woof, R.
Wren, C. W. Limpricht

Younge, E. C.
Youngs, R. C.

Zinoviev, S., Eng. Capt. |
|--|--|--|--|

	1940		1941		1942		1943		1944		1945		1946		1947		1948		1949	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Revenue :—																				
Interest on Investments ...	407	13 4	371	2 9	413	8 6	373	1 2	578	0 5	723	13 6	796	17 4	1,083	1 7	1,219	1 3	1,433	2 10
Ground Rents ...	352	2 10	387	2 10	405	10 1	422	4 2	410	12 4	404	11 9	405	10 10	400	5 10	408	1 1	365	18 10
Members Subscriptions ...	249	19 3	277	9 10	266	3 10	340	12 4	391	17 11	380	10 0	355	15 9	688	0 11	481	18 3	426	5 8
Donations ...	214	0 11	417	18 11	542	9 5	752	8 7	409	0 0	330	0 0	200	0 0	150	0 0	—	—	—	—
Total Receipts ...	1,223	16 4	1,453	14 4	1,627	11 10	1,969	0 0	1,995	1 11	2,127	5 9	2,066	18 11	2,344	11 5	2,148	8 8	2,275	12 10
" " (without donations)	1,009	15 5	1,035	15 5	1,085	2 5	1,216	11 5	1,586	1 11	1,797	5 9	1,866	18 11	2,194	11 5	2,148	8 8	2,275	12 10
Expenditure ...	994	13 10	900	9 9	1,017	2 2	1,246	12 10	1,453	19 1	1,693	11 10	1,734	5 5	1,643	12 9	1,735	8 2	1,884	19 10
Investments (capital)	20,259	8 0	21,780	3 9	22,892	3 4	23,964	6 4	24,685	1 8	24,931	2 8	25,631	17 2	26,237	3 2	26,237	18 10	26,012	6 3
" " John H. Silley Fund	—	—	—	—	—	—	11,500	0 0	14,500	0 0	16,465	4 0	18,051	5 0	22,390	19 4	26,447	14 4	29,008	6 0
" " James M. Dewar Bequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,731	15 3
Income Tax recoverable ...	106	2 3	263	6 4	398	11 0	382	13 4	479	0 1	407	1 9	374	0 8	987	10 4	640	13 5	542	8 10
Cash and Deposits A/c. ...	585	16 4	1,020	6 8	1,515	6 7	704	14 11	908	5 8	1,415	9 4	979	4 8	582	0 8	787	10 4	432	3 5

Tenth Annual General Meeting of the Education Group

Friday, 14th April 1950

Mr. T. W. Longmuir, the retiring Chairman, presided at the opening of the meeting, his place being afterwards taken by the new Chairman, Mr. R. S. Hogg.

The Minutes of the Ninth Annual General Meeting, held on 27th May 1949, were read in abstract and confirmed.

The RETIRING CHAIRMAN, reporting on the work of the past year, said that several very important matters had been dealt with. A year ago Mr. Calderwood, the then retiring Chairman, stated that the Associate Membership examination syllabuses had been approved and were awaiting printing. They were still awaiting the alteration of the By-laws before they could be published, but that was the only reason for the delay. They had then to go before the Privy Council for approval, and until they were so approved, the syllabuses could not be published. It had been agreed by the Council that they should come into operation in 1952.

A suggestion had been made two years ago, and reported on last year, that there should be a National Certificate in Marine Engineering. The proposal eventually took the form that the Mechanical Engineering certificate, countersigned by the President of the Institute of Marine Engineers, should be endorsed by the Institution of Naval Architects for anyone who took naval architecture as an extra subject, and that the President of the Institution of Mechanical Engineers should endorse an ordinary National Certificate in Naval Architecture for a student who had taken heat engines. The Worshipful Company of Shipwrights had agreed that anybody with a National Certificate in Mechanical Engineering with heat engines approved by the Institute could now, instead of having to take the general examination, take naval architecture as one subject and have an endorsement on the certificate. The Institution of Mechanical Engineers had acknowledged the letter on the subject, but had not yet replied to it.

The discussion after the Annual Meeting a year ago had been lengthy, and subsequently the following resolution had been passed for submission to the Council:

"That closer collaboration is required between ship-owners, marine engine builders, the Ministry of Transport and the Ministry of Education if an adequate supply of suitably trained sea-going engineers is to be maintained. The Council should put before the National Maritime Board proposals to initiate such collaboration with a view to the establishment of a joint training scheme for sea-going engineers".*

The Council agreed to this, and formed a sub-committee consisting of Mr. Logan, Mr. Nelson, Mr. Ormiston and himself. They held five or six meetings, and then a letter, approved by the Council, was sent to the Ministry of Transport. That letter was published on p. xiii of the Annual Report, and he noticed that it also mentioned the National Certificate. An acknowledgment had been received, but no reply, nor had the recommendations been put into effect; but it was understood that they were being considered favourably.

In March a special meeting of the Executive Committee had been held to consider a communication from the National Advisory Council which was concerned with higher technological education, and which had been sent to the various Institu-

* This text was adopted by the Ninth Annual General Meeting subject to revision of its wording, so that as given above it may not be the exact text submitted to the Council.

tions accompanied by a draft report on the future development of higher technological education. The Executive Committee held a very lengthy meeting on the subject, and were greatly helped by Mr. Reid, who was specially invited to attend. They drew up certain recommendations which went to the Council, and after consideration the Council sent a letter to the National Advisory Council which had been acknowledged. The correspondence would appear in the Annual Report to be published in due course in the TRANSACTIONS.

That concluded his report on the special business done during the year. The rest had been routine work. They had drawn up a full programme of Junior Lectures, both in the provinces and in London. One or two were awaiting confirmation, but a list would be published in good time for next year. The reports received from the colleges this year had been very encouraging; in every case where there had been a Junior Lecture the Institute had been asked to repeat it.

The next business was to elect a Chairman for the forthcoming year, and on behalf of the Committee and on his own behalf he would like to propose that Mr. R. S. Hogg, the present Vice-Chairman, be elected Chairman for the forthcoming year.

MR. T. A. BENNETT seconded the motion, which was carried unanimously. Mr. Longmuir then vacated the chair, which was taken by Mr. R. S. Hogg.

The CHAIRMAN (Mr. Hogg) thanked the meeting for electing him. He was sure, he said, that they did not want him to speak at length, but he would like to say that he followed in the footsteps of some very prominent members of the Institute, and if he could do his work as well as they had done theirs the result should be satisfactory.

The next business was the election of a Vice-Chairman, and the name suggested by the Committee was Mr. G. H. L. Owen.

MR. C. W. TONKIN proposed the election of Mr. G. H. L. Owen as Vice-Chairman. MR. C. J. M. FLOOD seconded the motion, which was carried unanimously.

The CHAIRMAN said the next item was the election of three members of the Committee. Messrs. R. K. Craig, C. J. M. Flood and R. F. Thompson were retiring, and the Committee suggested the election in their place of Messrs. G. F. Gatward, R. W. Parsons and B. Hildrew. Mr. Hildrew was not present that evening, but it was understood that he was willing to serve. It was open to members present, of course, to suggest other names.

MR. H. J. HETHERINGTON proposed the election *en bloc* of Messrs. G. F. Gatward, R. W. Parsons and B. Hildrew, and the motion was seconded and carried unanimously.

MR. T. A. BENNETT called attention to the fact that the Minutes of the previous Annual General Meeting had not been circulated to members of the Group, and moved as a recommendation for the consideration of the Executive Committee that in future the Minutes of the Annual General Meeting be sent to members of the Group.

Tenth Annual General Meeting of the Education Group

MR. F. H. REID seconded the motion, which was carried.

The CHAIRMAN asked whether that would include a summary of the address and discussion following the meeting.

The SECRETARY pointed out that a report of the address and discussion appeared in the TRANSACTIONS.

The CHAIRMAN said it would be made an item of business for the Executive Committee to discuss whether the Minutes of the Annual General Meeting should be published or not.

MR. F. H. REID called attention to the fact that there was no provision on the agenda for a vote of thanks to the retiring Chairman, and suggested that the thanks of the Group should be tendered to Mr. Longmuir for his work during the past year.

The CHAIRMAN said it would give him great pleasure to

move from the chair a cordial vote of thanks to the retiring Chairman.

The vote of thanks was carried by acclamation, and was acknowledged by Mr. Longmuir.

It was agreed, on the proposal of the Chairman, that the next Annual General Meeting be held on 16th March 1951.

The CHAIRMAN announced that this concluded the formal business of the meeting. Mr. Logan would now give an address entitled "The Theoretical and Practical Training of the Marine Engineer: A Superintendent Engineer's View-point".

MR. LOGAN then delivered his address (to be published in a later issue of the TRANSACTIONS) after which a vote of thanks was proposed by the Chairman and carried by acclamation.

The meeting then terminated.

The Marine Engineers' National War Memorial Building Fund

Subscribers at 1st May 1950—List A

	£	s.	d.		£	s.	d.
Aberdeen and Commonwealth Line	100	0	0	Britain Steamship Co. Ltd.	105	0	0
Aberdeen Coal and Shipping Co. Ltd.	10	10	0	British and Continental Steamship Co.	25	0	0
Acheson Colloids, Ltd.	2	0	0	British Arc Welding Co. Ltd. (per R. S. Kennedy)	50	0	0
Air Control Installations, Ltd.	5	5	0	British Channel Islands Shipping Co. Ltd.	5	5	0
Aiton and Co. Ltd.	100	0	0	British India Steam Navigation Co. Ltd.	1,000	0	0
Albyn Line, Ltd.	10	10	0	British Insulated Callenders Cables, Ltd.	105	0	0
Alexander (Machinery) Ltd., Geo. H.	3	3	0	British Paints, Ltd.	5	5	0
Alfa Laval Co. Ltd.	50	0	0	British Phosphate Commissioners, Ltd.	1	1	0
Allen, Sons and Co. Ltd., W. H.	100	0	0	British Tanker Co. Ltd. (2 donations)	1,525	0	0
Alley and Maclellan, Ltd.	10	0	0	British Transformer Oil and Lubricants, Ltd.	2	2	0
Anchor Line, Ltd.	105	0	0	Broady and Son, Ltd., W.	10	10	0
Andrews and Cameron, Ltd.	3	3	0	Brocklebank, Ltd., T. and J. (2 donations)	200	0	0
Anglo-American Oil Co. Ltd.	525	0	0	Broken Hill Proprietary Co. Ltd.	100	0	0
Anglo-Danubian Transport Co. Ltd.	5	5	0	Brotherhood, Ltd., Peter	52	10	0
Anglo-Saxon Petroleum Co. Ltd. (2 donations)	787	10	0	Brown and Sons (Huddersfield), Ltd., David	5	5	0
Angus and Co. Ltd., George	52	10	0	Brown and Co. Ltd., John	1,000	0	0
Ansell, Jones and Co. Ltd.	5	5	0	Brown, Ltd., A. and R.	26	5	0
Armstrong, H. and W.	5	0	0	Brown Brothers and Co. Ltd.	150	0	0
Arnott, Young and Co. Ltd., W. H.	2	2	0	Brown, Ltd., S. G.	10	10	0
Ary Shipping, Ltd.	5	5	0	Bryce Fuel Injections, Ltd.	5	5	0
Asiatic Steam Navigation Co. Ltd.	250	0	0	Buck and Hickman, Ltd.	5	5	0
Associated British Oil Engines (Marine), Ltd. (2 donations)	77	10	0	Bulk Oil Steamship Co. Ltd.	100	0	0
Athel Line, Ltd.	105	0	0	Bullard, King and Co. Ltd.	52	10	0
Atlas Preservative Co. Ltd.	10	10	0	Bull's Metal and Melloid Co. Ltd.	26	5	0
Austin, Ltd., Gilbert	2	2	0	Buries Markes, Ltd.	5	5	0
Australasian United Steam Navigation Co. Ltd. ...	150	0	0	Burrard Dry Dock Co. Ltd.	50	0	0
Australian Oriental Line, Ltd.	26	5	0	Burntisland Shipbuilding Co. Ltd.	105	0	0
Australind Steam Shipping Co. Ltd.	100	0	0	Burton, Griffiths and Co. Ltd.	5	5	0
Auto-Klean Strainers, Ltd.	25	0	0				
Ayr Engineering and Construction Co.	10	10	0	Caledon Shipbuilding and Engineering Co. Ltd. ...	105	0	0
Axia Fans, Ltd.	100	0	0	Canadian Pacific Steamships, Ltd.	100	0	0
				Cammell Laird and Co. Ltd.	500	0	0
Babcock and Wilcox, Ltd.	250	0	0	Capper and Co. Ltd., Alexander	25	0	0
Bamford and Co. Ltd., F.	2	2	0	Carborundum Co. Ltd.	25	0	0
Bank Line, Ltd.	1,000	0	0	Carruthers and Co. Ltd., J. H.	5	5	0
Barclay, Curle and Co. Ltd.	800	0	0	Cementation Co. Ltd.	25	0	0
Barline Transports, Ltd.	5	5	0	Chadburns (Liverpool) Ltd.	25	0	0
Beacon Shipping Lines, Ltd.	5	5	0	Chemical and Insulating Co. Ltd.	10	10	0
Beal and Son, Ltd. (2 donations)	6	6	0	China Mutual Steam Navigation Co. Ltd.	1,000	0	0
Bearcreek Oil and Shipping Co. Ltd.	250	0	0	Churchill and Co. Ltd., Charles	100	0	0
Beldam Asbestos Co. Ltd.	25	0	0	Clan Line Steamers (2 donations)	2,000	0	0
Beldam Packing and Rubber Co. Ltd.	105	0	0	Clarke, Chapman and Co. Ltd.	150	0	0
Bell's Asbestos and Engineering, Ltd.	10	10	0	Clydesdale Engineering Works	5	5	0
Bibby Bros. and Co.	300	0	0	Coast Lines, Ltd.	100	0	0
Billington and Newton, Ltd.	5	5	0	Coker and Co. Ltd., A.	3	3	0
Billmeir and Co. Ltd., J. A.	52	10	0	Cole, Ltd., E. K.	10	10	0
Birkett and Sons, Ltd., T. M.	5	5	0	Constantine Steam Ship Line, Ltd., Joseph	300	0	0
Blakeborough and Sons, Ltd., J.	26	5	0	Cook, Welton and Gemmill, Ltd.	2	2	0
Blue Star Line, Ltd. (2 donations)	210	0	0	Cork Manufacturing Co. Ltd.	5	5	0
Blundells and T. Albert Crompton and Co. Ltd.	105	0	0	Cory and Son, Ltd., William	262	10	0
Bolton Steam Shipping Co. Ltd.	2	2	0	Cossor Radar, Ltd.	5	5	0
Booker Bros, McConnell and Co. Ltd.	3	3	0	Coventry Climax Engines, Ltd.	2	2	0
Booth Steamship Co. Ltd.	25	0	0	Coventry Diesel Engines, Ltd.	2	2	0
Bowring Steamship Co. Ltd.	250	0	0	Crawford and Co., A.	5	0	0
Boydell and Co. Ltd., E.	5	5	0	Crawford Shipping Co. Ltd.	5	5	0
Brigham and Cowan, Ltd.	50	0	0	Crittall and Co. Ltd., Richard	5	5	0
				Cruickshank and Co. Ltd.	5	5	0

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Currie Line, Ltd.	25	0	0	Halifax Shipyards, Ltd.	50	0	0
Cunard Steam Ship Co. Ltd.	1,000	0	0	Hall and Sons, Ltd., J. P.	50	0	0
Cunard White Star, Ltd.	1,000	0	0	Hall, Ltd., J. and E.	250	0	0
Cyc-Arc, Ltd.	2	2	0	Hall, Russell and Co., Ltd.	50	0	0
Dalhousie Steam and Motor Ship Co. Ltd.	10	10	0	Harker, Ltd., John	10	10	0
Davey, Paxman and Co. Ltd.	25	0	0	Harland and Wolff, Ltd.	1,000	0	0
Davies and Newman, Ltd.	10	10	0	Harris and Dixon, Ltd.	25	0	0
Denholm Line Steamers, Ltd.	25	0	0	Harrison, Ltd., J. and C.	10	10	0
Denny and Bros. Ltd., William	200	0	0	Harrison, T. and J.	250	0	0
Dennystown Forge Company	25	0	0	Harrisons (London), Ltd.	5	5	0
Dewrance and Co. Ltd.	52	10	0	Harvey and Co. (London), Ltd., G. A.	250	0	0
Diamond Blower Co. Ltd.	10	10	0	Harvey, Trinder and Van Ommeren, Ltd.	25	0	0
Dick and Co. Ltd., W. B.	52	10	0	Hastie and Co. Ltd., John	100	0	0
Dixon and Son, Ltd., S.	5	5	0	Hawkins and Tipson, Ltd.	5	5	0
Donaldson Line, Ltd.	50	0	0	Hawthorn, Leslie and Co. Ltd., R. and W.	1,000	0	0
Donkin and Co. Ltd.	5	5	0	Hayes, Ltd., R. S.	5	5	0
Dorey and Sons, Ltd., Onesimus	10	10	0	Hayward-Tyler and Co. Ltd.	1	1	0
Dover Navigation Co. Ltd.	25	0	0	Heenan and Froude, Ltd.	10	10	0
Doxford and Sons, Ltd., William	750	0	0	Henderson and Co., P.	300	0	0
Drypool Engineering and Dry Dock Co. Ltd.	2	2	0	Hepworth and Grandage	10	10	0
Drysdale and Co. Ltd.	250	0	0	Herbert, Ltd., Edward G.	1	1	0
Duncan and Co. Ltd., J. T.	12	10	0	Hindustan Steam Shipping Co. Ltd.	26	5	0
Dundee, Perth and London Shipping Co. Ltd.	25	0	0	Ho Hong Steam Ship Co. Ltd.	100	0	0
Dunlop and Sons, Thomas	5	5	0	Hogarth and Sons, Ltd., H.	250	0	0
Dunston, Ltd., Richard	25	0	0	Holmes and Co. Ltd., Charles D.	2	2	0
Eagle Oil and Shipping Co. Ltd.	250	0	0	Holt and Co. (Liverpool), Ltd., John	100	0	0
East Coast Steamship Co. Ltd.	1	1	0	Houlder Bros. and Co. Ltd.	100	0	0
Eastern and Australian Steam Ship Co. Ltd.	150	0	0	Houseman and Thompson, Ltd.	5	5	0
E.C.D., Ltd.	50	0	0	Howden and Co. Ltd., James	100	0	0
Edison Swan Cables, Ltd.	10	10	0	Howson and Co. Ltd., Charles	20	0	0
Elder Dempster Lines, Ltd.	500	0	0	Hoyt Metal Co. of Great Britain, Ltd.	10	10	0
Elders and Fyffes, Ltd. (2 donations)	78	15	0	Hudson Steam Ship Co. Ltd.	5	5	0
Ellerman Lines, Ltd. (2 donations)	2,000	0	0	Hull Gates Shipping Co. Ltd.	2	2	0
Ellerman's Wilson Line, Ltd.	250	0	0	Humber Graving Dock and Engineering Co. Ltd.	100	0	0
English Electric Co. Ltd.	250	0	0	Hunting and Son, Ltd.	100	0	0
Euxine Shipping Co. Ltd.	10	10	0	Hyland, Ltd.	10	10	0
Everard and Sons, Ltd., F. T.	105	0	0	Ince Forge Co.	5	5	0
Evershed and Vignoles, Ltd.	10	0	0	Indo-China Steam Navigation Co. Ltd.	50	0	0
Fairfield Shipbuilding and Engineering Co. Ltd.	500	0	0	Institute of Marine Engineers—Cardiff and District Local Section	10	10	0
Federal Steam Navigation Co. Ltd.	1,000	0	0	Irvin and Sellers, Ltd.	5	5	0
Ferguson and Timpson, Ltd.	52	10	0	Jacobs and Co. Ltd., John I.	125	0	0
Fielding and Platt, Ltd.	10	10	0	Jefferies and Sons, Ltd., J.	26	5	0
Fisher and Sons, Ltd., James	26	5	0	Jenkins and Co. Ltd., Robert	5	5	0
Foster Wheeler, Ltd.	105	0	0	Jones and Co., Richard W.	10	10	0
France, Fenwick and Co. Ltd., Wm.	105	0	0	Jones and Sons, Frederick	5	5	0
Frances Steam Ship Co. Ltd.	12	10	0	Keenan and Co. Ltd., Matthew	10	10	0
Furness, Withy and Co. Ltd.	250	0	0	Kelvin and Hughes (Marine), Ltd.	20	0	0
General Electric Co. Ltd.	150	0	0	Key Engineering Co. Ltd.	2	2	0
General Steam Navigation Co. Ltd.	250	0	0	Kincaid and Co. Ltd., John G.	250	0	0
Germ Lubricants, Ltd.	3	3	0	King, Ltd., G. W.	5	5	0
German and Milne	2	2	0	Klinger, Ltd., R.	50	0	0
Glen and Co. Ltd.	25	0	0	Kuwait Oil Co. Ltd.	10	10	0
Glen Line, Ltd.	1,000	0	0	Lambert Bros., Ltd.	100	0	0
Goole Shipbuilding and Repairing Co. Ltd.	25	0	0	Lancashire Shipping Co. Ltd.	10	10	0
Goulandris Bros., Ltd.	26	5	0	Lancaster and Tonge, Ltd.	10	10	0
Gould's Foundries, Ltd.	10	10	0	Larrinaga Steamship Co. Ltd.	25	0	0
Gow, Harrison and Co.	25	0	0	Leeds and Bradford Boiler Co. Ltd.	1	1	0
Grand Union (Shipping), Ltd.	10	10	0	Limmer and Trinidad Lake Asphalt Co. Ltd.	2	2	0
Gray and Co. Ltd., William	100	0	0	Lincoln Electric Co. Ltd.	3	0	0
Gray, Dawes and Co., Ltd.	100	0	0	Lister (Marine Sales), Ltd., R. A.	50	0	0
Grayson, Rollo and Clover Docks, Ltd.	105	0	0	Lloyd's, Corporation of	100	0	0
Green and Silley Weir, Ltd., R. and H. (2 donations)	650	0	0	Lloyd's Register of Shipping	1,000	0	0
Green and Son, Ltd., E.	100	0	0	Lobitos Oilfields, Ltd.	100	0	0
Greenwell and Co. Ltd., T. W.	10	0	0	Lockington and Co. Ltd., S.	2	2	0
Guinness, Son and Co. Ltd., Arthur	25	0	0	Lockwood and Carlisle, Ltd.	10	0	0
Hain Steamship Co. Ltd.	500	0	0	L.N.E., L.M.S., G.W. and S. Railways	105	0	0
Halal Shipping Co. Ltd.	10	10	0	London and Rochester Trading Co.	20	0	0
				London Graving Dock Co. Ltd.	52	10	0

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
London Scaling Co. Ltd.	250	0	0	Pollock, Sons and Co. Ltd., James... ..	21	0	0
London Shipping Orchestral Society	20	0	0	Polytechnic Engineering Society	2	2	0
London Welding Co. Ltd.	5	5	0	Pool Shipping Co. Ltd.	10	0	0
Lusi, Ltd., A.	5	5	0	Port Line, Ltd. (2 donations)	1,000	0	0
Lynn and Co. Ltd., John	52	10	0	Power Plant Co. Ltd.	52	10	0
MacAndrews and Co. Ltd.	250	0	0	Price's Lubricants, Ltd.	10	10	0
Maclay and McIntyre, Ltd.... ..	100	0	0	Prince of Wales Dry Dock Co. (Swansea), Ltd.	52	10	0
Macphie and Co. Ltd., John J.	3	3	0	Pyrene Co. Ltd.	26	5	0
Macrome, Ltd.	5	5	0	Quasi-Arc Co. Ltd.	10	10	0
Malone Instrument Co. Ltd.	5	5	0	Raeburn and Verel, Ltd.	25	0	0
Manchester Dry Docks, Ltd.	105	0	0	Rankin and Blackmore, Ltd.	50	0	0
Manchester Liners, Ltd.	125	0	0	Readhead and Sons, Ltd., John	210	0	0
Manchester Oil Refinery, Ltd.	10	10	0	Redgate Steamship Co. Ltd.	5	5	0
Manganese Bronze and Brass Co. Ltd.	52	10	0	Red Hand Compositions Co.	10	0	0
Mann (Shipping), Ltd., H. G.	5	5	0	Renold and Coventry Chain Co. Ltd.	10	0	0
Marine and Industrial Lubricants, Ltd.	26	5	0	Renton and Fisher	5	5	0
Marine Instruments, Ltd.	25	0	0	Richardsons, Westgarth and Co. Ltd.			
Massey and Sons, Ltd., W. A.	1	1	0	North Eastern Marine Engineering Co. Ltd.... ..	525	0	0
Mather and Platt, Ltd.	10	10	0	George Clark, Ltd.			
Matthews, Wrightson, Burbidge, Ltd. (4 dona- tions)	4	4	0	Robertson, William	20	0	0
Mazagon Dock, Ltd.	100	0	0	Robinson and Sons, J.	20	0	0
Mazagon Dock, Ltd.—Staff	16	10	0	Ropner and Co. Ltd., Sir R.	10	0	0
Medomsley Steam Shipping Co. Ltd.	5	5	0	Rotterdam Dry Dock Co. Ltd.	52	10	0
Mercantile Dry Dock Co. Ltd.	25	0	0	Rowhedge Ironworks Co. Ltd.	5	5	0
Mersey Ports Stevedoring Co. Ltd.	2	2	0	Royal Mail Lines, Ltd. (2 donations)	250	0	0
Metal Industries (Salvage), Ltd.	10	10	0	Russell and Co., J.	10	10	0
Metropolitan-Vickers Electrical Co. Ltd.	10	10	0	Ruston and Hornsby, Ltd.	75	0	0
Michalinos and Co. Ltd.	10	10	0	Rylands Bros., Ltd.	10	0	0
Middle Docks and Engineering Co. Ltd.	105	0	0	Salvesen and Co., Chr.	21	0	0
Mirrlees, Bickerton and Day, Ltd.	2	2	0	Salvesen and Co., J. T.	21	0	0
Mitchell, Cotts and Co. (2 donations)	157	10	0	Saunders Valve Co. Ltd.	5	5	0
Modern Wheel Drive, Ltd.... ..	10	10	0	Scindia Steamships (London) Ltd.	10	0	0
Mogul Line, Ltd.	200	0	0	Scottish Co-operative Wholesale Society	2	2	0
Moller Line (U.K.), Ltd.	10	10	0	Scott's Shipbuilding and Engineering Co. Ltd.	250	0	0
Moss and Co., H. E.... ..	100	0	0	Semtex, Ltd.	50	0	0
Moss Gear Co. Ltd.	5	5	0	Senova Transport Co. Ltd.	5	5	0
Moss Hutchinson Line, Ltd.	250	0	0	Shanks and Son, Ltd., Alexander	10	10	0
Motor Ship	25	0	0	Sharp and Co.	20	0	0
Mountstuart Dry Docks, Ltd.	105	0	0	Sharple's Centrifuges, Ltd.	50	0	0
Mungo Campbell and Co. Ltd.	50	0	0	Shaw, Savill and Albion Co. Ltd.	100	0	0
Murray Wilson and Co., A., and Clyde Blowers, Ltd.	5	0	0	Sheaf Steam Shipping Co. Ltd.	100	0	0
National Benzole Co. Ltd.	105	0	0	Ships Finance and Management Co. Ltd.... ..	100	0	0
National Gas and Oil Engine Co. Ltd.	50	0	0	Silley, Cox and Co. Ltd.	250	0	0
New Zealand Institute of Marine and Power Engineers	10	10	0	Silvertown Lubricants, Ltd.	52	10	0
New Zealand Shipping Co. Ltd.	1,000	0	0	Singapore Straits Steam Ship Co. Ltd.	250	0	0
Nicholson, Ltd., Edward	2	2	0	Smith and McLean, Ltd.	10	0	0
Nisbet and Co., George	30	0	0	Smith and Sons, Ltd., Sir William Reardon	500	0	0
Niven, Nelson and Matthews, Ltd.	10	10	0	Smith's Dock Co. Ltd.	500	0	0
Nomikos (London), Ltd.	5	5	0	Solvoleme Lubricants, Ltd.	10	10	0
Norris Warning Co. Ltd.	5	5	0	South American Saint Line, Ltd.	250	0	0
North Shipping Co. Ltd.	100	0	0	Southeast Engineering Co.	1	1	0
Northern Aluminium Co. Ltd.	10	10	0	Springwell Shipping Co. Ltd.	21	0	0
Northern Co-operative Society, Ltd.	2	2	0	Spurrier, Glazebrook and Co. Ltd.	10	10	0
Nourse, Ltd., James	250	0	0	Standard Piston Ring and Engineering Co. Ltd.	5	0	0
Novocastria Shipping Co. Ltd.	5	5	0	Steam Coasters, Ltd.	5	5	0
Ocean Steam Ship Co. Ltd. (2 donations)	3,000	0	0	Stephen and Sons, Ltd., Alexander... ..	105	0	0
Orient Steam Navigation Co. Ltd.... ..	1,000	0	0	Stephenson Clarke, Ltd.	105	0	0
Overseas Towage and Salvage Co. Ltd.	5	5	0	Stephens, Sutton, Ltd.	3	3	0
Pacific Steam Navigation Co.	100	0	0	Sternol, Ltd.	10	10	0
Parsons Marine Steam Turbine Co. Ltd.	500	0	0	Sterne and Co. Ltd., L.	100	0	0
Pearson and Knowles Engineering Co. Ltd.	25	0	0	Steven and Struther, Ltd.	5	5	0
Peninsular and Orient Steam Navigation Co.	1,000	0	0	Stewart and Craig, Ltd.	10	10	0
Permutit Co. Ltd.	10	10	0	Stone and Co. Ltd., J.	100	0	0
Philip and Son, Ltd.	105	0	0	Stothert and Pitt, Ltd.	10	10	0
Plenty and Son, Ltd.	10	10	0	Strick Line, Ltd.	250	0	0
				Summerson and Sons, Ltd., Thomas	2	2	0
				Superheater Co. Ltd.	25	0	0
				Sutherland and Co. Ltd., B. J.	50	0	0
				Swan, Hunter and Wigham Richardson, Ltd.	1,000	0	0

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Swinney Bros., Ltd.	10	10	0	Vacuum Oil Co. Ltd.	50	0	0
Swire and Sons, Ltd., John... ..	50	0	0	Vickers and Sons, Ltd., B. R.	5	5	0
				Vickers-Armstrongs, Ltd.	1,000	0	0
Tatem, Ltd., W. J.	52	10	0				
Taylor and Hubberd, Ltd.	2	2	0	Wales Dove Bitumastic, Ltd.	105	0	0
Taylor and Sons (1937), Ltd., S. T.	10	10	0	Wakefield and Co. Ltd., C. C.	52	10	0
Texas Oil Co. Ltd.	10	10	0	Walker and Co. Ltd., James	5	5	0
Thames Welding Co. Ltd.	15	15	0	Wallsend Slipway and Engineering Co. Ltd.	500	0	0
Thermotank, Ltd.	200	0	0	Watergate Steam Shipping Co. Ltd.	10	10	0
Thompson (Wolverhampton), Ltd., John	105	0	0	Weir, Ltd., G. and J.	500	0	0
Thornycroft and Co. Ltd., John I.... ..	100	0	0	Wexford Steamships Co. Ltd.	2	2	0
Tilbury Contracting and Dredging Co. Ltd.	10	10	0	Wharton (Shipping), Ltd., J.	5	0	0
Todd Oil Burners, Ltd.	5	5	0	White and Co. Ltd., J. Samuel	210	0	0
Todd Shipyards Corporation	100	0	0	Wilson and Kyle, Ltd.	50	0	0
Trent Maritime Co.	10	10	0	Wilson Bros. (Pipe Fittings), Ltd.	3	0	0
Trewent and Proctor, Ltd., F. J.	7	7	0	Wilton's Engineering and Slipway Co.	52	10	0
Trinidad Leaseholds, Ltd.	10	10	0	Winsor Engineering Co. Ltd.	5	5	0
Turnbull Scott Shipping Co. Ltd.	5	5	0	Wiseman and Co. Ltd., Alfred	5	5	0
Tyne Dock Engineering Co. Ltd.	25	0	0	Wood and Clark, Ltd.	1	1	0
Union Castle Mail Steam Ship Co. Ltd.	262	10	0	Worthington-Simpson, Ltd.	100	0	0
Union Steam Ship Co. of New Zealand, Ltd.	210	0	0				
United Africa Co. Ltd.	250	0	0	Yarrow and Co. Ltd.	105	0	0
United Baltic Corporation, Ltd.	250	0	0	Yarrows, Ltd.	5	0	0
United States Metallic Packing Co. Ltd.	50	0	0	Yorkshire Copper Works, Ltd.	100	0	0
Universal Welding and Construction Co.	10	10	0				

Subscribers at 1st May 1950—List B

	£	s.	d.		£	s.	d.
Acors, J. C.	10	6		Barlow, R. C.	10	0	
Adamson, W. W.	1	1	0	Barnes, G. W.	1	1	0
Addison, K. C.	2	2	6	Barnett, H.	2	12	6
Aitchison, T. E.	1	0	0	Baron, R. B.	2	2	0
Aitken, M. B.	2	2	0	Barr, H.	5	0	0
Akman, O. M.	1	0	0	Barr, J. L.	1	1	0
Al Arabi, M. A. I.	10	0		Barr, W. H.	5	0	0
Allen, G. H. (3 donations)	7	13	0	Barrie, P.	1	0	0
Allen, R. B.	3	3	0	Bass, Lieut.(E) C. W. F., D.S.C., R.N.	1	0	0
Allen, W. F.	2	0	0	Bateman, B.	2	2	0
Altham, G.	10	0		Bates, F. A.	2	2	0
Alton, W. A.	5	5	0	Baxter, R. A.... ..	3	0	0
Anderson, S. A.	5	0	0	Baxter, Lieut.(E) R. J., M.B.E., R.N.	1	0	0
Angel, W. B.	1	1	0	Beadle, J.	10	0	
Anning, W. B.	2	2	0	Beavin, E. A.	10	6	
Anonymous donors	47	0	6	Beavis, R. C. (3 donations)	3	3	0
Argyros, A. M.	2	2	0	Beckett, F. O.	2	0	0
Armer, A.	1	0	0	Bedward, K.	1	0	0
Armstrong, H.	2	2	0	Becken, D. W.	1	0	0
Arnold, H.	1	1	0	Bell, F. P.	5	5	0
Arrowsmith, B. P.	5	5	0	Bell, J. S.	3	3	0
Arthur, T. L.... ..	2	0	0	Bennett, A. M.	2	2	0
Ashby, F. C.	1	1	0	Bennett, C. H.	5	0	0
Ashley, W. C. C.	5	0	0	Bennett, J. C.	1	1	0
Atkinson, H.	5	0	0	Bennett, T. A. (4 donations)	4	0	0
Atkinson, S.	1	1	0	Bergner, A. E.	12	0	0
Atkinson, T.	2	0	0	Berlie, R.	10	6	
Atkinson, W. A. F.	1	1	0	Berry, R. B.	10	0	
Austin, J.	10	10	0	Best, L. C.	10	0	
Aziz, G. F.	1	0	0	Biles, E. J.	10	0	
				Binmore, J. M.	2	2	0
Back, V. W.	10	0	0	Bird, A.	10	6	
Bailey, W. H.... ..	1	0	0	Birdwood, C. T.	1	1	0
Bainbridge, R. G.	1	0	0	Birnie, O. H. L. (3 donations)	3	0	0
Baird, W. G.	1	0	0	B.I.S.N. Co. Ltd.—Engineer Officers (per G. K. Cruikshank)	41	0	7
Balfour, P. F.... ..	1	1	0	Bisset, Lieut.(E) J., R.N.R.	1	0	0
Barala—Engineer Officers (per H. Winch)... ..	4	0	0	Bjorck, C. E.... ..	10	6	
Barclay, T. H.	2	2	0	Black, H.	2	2	0
Barker, L. P.	1	1	0				

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	£	s.	d.		£	s.	d.
Blackburn, N. P.	2	2	0	Chiverton, A. H. V.	1	0	0
Blackburn, R.... ..	1	1	0	Christensen, S. G.	1	1	0
Blackman, B. N.	10	0		Christianson, W. A.	10	10	0
Blakely, G. (2 donations)	4	10	0	Christie, J. G.	5	0	0
Blight, A. J. C.	10	7		Christie, K.	2	2	0
Blood, T. H.... ..	1	10	0	Church, J. E.... ..	5	5	0
Blower, E. R.	1	0	0	Clark, A. W.	1	1	0
Blowers, W.	1	0	0	Clark, J.	1	0	0
Blue, W. B. T.	5	5	0	Clark, J.	5	0	0
Boothroyde, F. (2 donations)	2	12	6	Clark, J.	2	2	0
Booty, Mr. and Mrs. E. J.	2	2	0	Clarke, J. D.	2	0	0
Bourne, F.	5	0	0	Clarke, R. T.	10	10	0
Bowden, S. H.	5	0	0	Clayton, H. R.	2	2	0
Bowen-Evans, Lt.-Com'r(E) H. P., R.N.	2	2	0	Cleworth, H. B.	1	0	0
Bowie, S.	2	2	0	Clifton, R. H.... ..	1	1	0
Bowman, J.	1	1	0	Clough, E.	5	0	0
Bowtell, A. E.	1	0	0	Coates, J. L., O.B.E. (3 donations)... ..	1	11	0
Boyce, H. M.... ..	10	6		Cobb, W. S.	1	1	0
Boyle, Eng. Com'r A. H., D.S.C., R.N.	5	5	0	Cochrane, D.	1	1	0
Bradley, W.	1	1	0	Coia, G. J.	3	0	0
Brand, J. W.	5	0	0	Cole, T. E. (2 donations)	18	0	
Brettell, W. G.	6	6	0	Collin, R. B.	1	1	0
Brooks, E. H.... ..	8	8	0	Colling, W.	1	1	0
Brown, C. H. W.	10	10	0	Colvill, F. J.	3	3	0
Brown, F. T. (2 donations)... ..	7	10	0	Combella, E. P.	1	1	0
Brown, Rear-Admiral(E) G. H. H., C.B.E., and J. P. H. Brown	5	0	0	Connell, Lieut. Com'r(E) D. M., R.N.	2	2	0
Brown, Eng. Vice-Admiral Sir Harold A., G.B.E., K.C.B.	5	0	0	Cook, J. F.	1	1	0
Brown, N. M.	5	5	0	Cook, R.	1	1	0
Brown, W. V.	1	1	0	Cookson, F. R. C.	2	2	0
Bruce, D.	10	6		Cordingley, Eng. Lieut. J., R.N.(ret)	2	2	0
Bruty, Lieut.(E) W. G., M.B.E., R.N.	1	1	0	Corner, Lieut.(E) W. R., M.B.E., R.N.	2	0	0
Buck, A. E.	5	0	0	Coulthard, H.	2	2	0
Buckley, J.	1	0	0	Coulthard, J. W.	10	10	0
Buddle, J.	2	0	0	Cowan, G.	1	1	0
Bunn, J. C.	1	1	0	Cowan, R. S.... ..	10	0	0
Burgess, A. D.	1	1	0	Cowe, H. A.	1	1	0
Burgis, F. M.	5	5	0	Cowper, J.	2	2	0
Burnham, G.	2	2	0	Craggs, G. F.... ..	1	11	
Burrage, E. E.	5	0	0	Craggs, T. S.... ..	1	1	0
Busby, L. H.	5	0	0	Crane, C.	1	1	0
Butler, R. B. (2 donations)	2	5	0	Crighton, A. E.	5	5	0
Buttery, W. R.	2	2	0	Crighton, J.	15	15	0
				Crighton, J., Jr.	10	10	0
				Cromey, W. R.	1	1	0
				Crompton, T. A.	105	0	0
				Crompton, T. M.	2	2	0
Cady, E. N.	1	0	0	Crosbie, W. L.	1	0	0
Cain, T. R. (2 donations)	2	18	2	Cross, F.	2	7	6
Cameron, J. H.	5	0	0	Cross-Rudkin, F. W.... ..	10	0	
Cameron, J. V.	5	0	0	Crossley, D. P.	10	9	
Cameron, J. W.	3	3	0	Cubitt, J. C.	1	0	0
Campbell, A.	1	1	0	Curling, B. C.	5	5	0
Campbell, J. P.	10	10	0				
Cant, A. J.	1	1	0	Daintith, H.	1	1	0
Card, Lieut.(E) N. H., R.N.	2	2	0	Dalrymple, W.	1	1	0
Carnie, J.	1	1	0	Daniels, C. E.	1	1	0
Carrick, P.	10	0	0	D'Arcy, Capt.(E) N. J. H., R.N.	2	2	0
Carson, W. D.	3	3	0	Davidson, A.	10	0	
Carson, W. S.	2	2	0	Davidson, J. H., O.B.E. (2 donations)	6	1	0
Carswell, D. B., O.B.E.	25	0	0	Davies, A. J. A.	10	0	
Carter, A.	3	3	0	Davies, F. S.... ..	2	0	0
Carter, H. D.... ..	3	0	0	Davies, W. G.	5	0	0
Carter, J. R.	1	0	0	Davis, G.	2	2	0
Cassels, G. C.	2	0	0	Davis, J. R.	2	2	0
Cavan, G.	1	1	0	Davis, L. C.	2	2	0
Chadwick, S. S.	1	1	0	Davis, R. C.	5	0	0
Chaloner, J. L.	10	10	0	Dean, N.	1	1	0
Chamberlain, E. R.	3	3	0	Deans, R.	2	0	0
Chamberlain, J. H.	2	0	0	Delo, W. E. W.	1	0	0
Chandler, W. J.	5	0	0	Denny, J.	2	2	0
Chapman, C.	1	0	0	Denny, W.	10	0	0
Chapman, H.... ..	2	2	0	Derbyshire, Lieut.(E) C. J. C., M.B.E., R.N.	3	0	0
Chenery, F. J.	2	2	0				

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	£	s.	d.		£	s.	d.
Dick, W.	2	2	0	Freeman, S. B., C.B.E.	5	5	0
Dicker, E.	1	1	0	French, R. D.	1	1	0
Dickerson, T.	2	0	0	Friend, C. N.	2	2	0
Dickson, A. A. S.	2	0	0	Frost, J.	2	2	0
Dight, Eng. Rear-Admiral S. R., C.B.E.	20	0	0	Fulford, L. J.	2	2	0
Dobbs, A. G.	3	3	0				
Dodd, E. B.	2	2	0	Gair, A. R.	5	5	0
Doig, M.	5	0	0	Galley, J. N. (2 donations)	1	8	6
Doling, R.	1	0	0	Gambles, C. C.	2	2	0
Donaldson, W.	2	2	0	Gander, F. S.	1	1	0
Dorey, Dr. S. F., C.B.E., F.R.S.	25	0	0	Gandy, F. B.	20	0	0
Dowle, E. H.	1	0	0	Gardner, H. A.	2	2	0
Downie, Major F., C.B.E.	1	1	0	Gardner, R.	5	5	0
Drake, D. C.	10	0	0	Garratt, E. C.	5	0	0
Duncan, J.	1	0	0	Geddes, A. S.	1	7	6
Dunlop, S. H.	2	0	0	George, W. R.	1	1	0
Dunn, J. L.	5	0	0	Gerard, A. J. (2 donations)	4	4	0
Dunn, W.	4	4	0	Gerrard, H.	1	1	0
Dunshea, R. M.	1	0	0	Gibson, A. C.	2	0	0
				Giles, H. J. G.	5	0	0
Eamey, Lieut.(E) R. W., M.B.E., D.S.C., R.N.	5	0	0	Gill, F. B.	1	15	0
East, A. S.	1	0	0	Gillies, W.	8	9	
Eddy, A. H. (2 donations)	1	18	3	Gillies, W. D. W.	1	1	0
Edgar, R.	2	0	0	Giordan, Comm'd Eng. A. L., D.S.C., R.N. (2 donations)	2	17	9
Edmiston, J. G.	5	5	0	Giorgio, J.	1	0	0
Edwards, S. W.	1	0	0	Girdler, A. C.	1	1	0
Eighteen, H. J.	11	0	0	Girdwood, J. F.	10	0	0
Elderton, A. J.	5	0	0	Given, Capt. I. G. C., C.B.E., R.N.	2	2	0
Elgood, J. O. S.	2	0	0	Glass, W. J. S.	4	0	0
Ellis, E.	1	1	0	Golightly, G. T.	1	1	0
Ellison, J. F. R.	1	1	0	Gooder, A. C.	1	1	0
Elordieta, V.	10	6		Gordon, F.	2	7	2
Emery, A.	1	19	5	Gordon, I. E. S.	5	6	3
English, T. C.	2	2	0	Gordon-Luhrs, H.	2	2	0
Esdon, D. S.	2	2	0	Gow, D. F.	2	2	0
Espin, W. L.	1	0	0	Graham, Eng. Capt. W. A., O.B.E.	10	0	0
Evans, W. J.	1	0	0	Graham, W. (2 donations)	1	8	0
Ewart, W. D. (2 donations)	4	16	0	Grange, G. R.	5	0	0
				Grant, W. C. (2 donations)	5	5	0
Fairley, F. F.	1	1	0	Grant, Lieut. Com'r(E) W. E., R.N.	1	1	0
Fairweather, R.	1	0	0	Graves, J. H.	5	0	0
Farmer, J. D., O.B.E.	10	0	0	Gray, G. T.	2	2	0
Fawcett, F. A.	1	1	0	Gray, T.	1	0	0
Ferguson, G.	1	1	0	Green, E. L.	2	0	0
Ferguson, J. A.	2	10	0	Green, J. E.	5	0	0
Ferguson, L. J.	5	5	0	Green, W. H.	3	3	0
Ferrier, H. G.	5	5	0	Greenwood, J.	10	0	0
Fielden, B. P.	10	10	0	Gregson, Major W.	10	10	0
Filshie, G.	5	0	0	Grey, R. B.	5	5	0
Findlay, D. N.	2	0	0	Grieve, J. H.	2	2	0
Findlay, J.	5	0	0	Grieve, W.	2	2	0
Finlay, L.	1	0	0	Groom, R. W.	10	10	0
Firth, Capt. G. T., M.B.E.	1	0	0	Groundwater, J. R.	2	7	2
Fisher, G. F.	1	0	0	Groves, A. N.	2	2	0
Fishwick, J. T.	2	0	0	Guerin, W. R.	10	0	0
Fleming, J.	1	1	0	Gujarat—Engineers and Electricians	1	18	0
Fleming, S. W. C.	1	0	0	Gunn, J. G.	10	0	0
Flenk, H. A.	1	7	6				
Fletcher, A.	5	5	0	Hackston, G.	1	1	0
Fletcher, H. E.	5	5	0	Haddy, Eng. Rear-Admiral F. G. (ret)	1	1	0
Flood, C. J. M.	5	5	0	Hadlow, C. N.	1	1	0
Flood, E. C.	1	1	0	Hagan, A. N.	2	12	6
Fogg, R. C.	1	1	0	Hair, D., M.B.E. (2 donations)	4	2	0
Foggin, G.	1	0	0	Haldane, I.	1	1	0
Foley, Sir E. Julian	52	10	0	Hall, H. G.	2	2	0
Ford, E. D.	2	2	0	Hall, H. J.	1	1	0
Foreman, W. J. L.	1	1	0	Hall, J. D.	1	1	0
Forsyth, Dr. G. H.	5	0	0	Halliday, J. F.	1	1	0
Forsyth, R. G.	3	0	0	Halls, G.	1	1	0
Fowler, J.	1	1	0	Hamilton, J. P.	2	2	0
Fowler, W. E. B.	1	1	0	Hamilton-Smith, A.	10	0	0
Fox, W. J.	1	1	0				

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Hammond, C.	2	2	0	Inches, R. M.... ..	2	2	0
Hammond, S. W.	1	1	0	Inglis, J. D.	25	0	0
Handley, C. E. (2 donations)	6	16	6	Ingram, Com'r(E) L. F., R.N.	1	1	0
Hanna, A.	1	0	0	Innes, W. G. S.	1	1	0
Hardacre, F. S.	10	6		Ireland, W. G. (2 donations)	1	0	0
Harding, A. J., O.B.E.	3	3	0	Irvin, N.	1	0	0
Harding, R. W.	2	2	0	Irving, E. T.	2	2	0
Hardstone, W. F.	1	8	6	Irwin, D. W.... ..	1	0	0
Hardy, A. C.... ..	10	10	0	Isdale, Capt. J., D.S.C.	5	0	0
Hardy, J.	1	1	0	Ismay, T.	10	0	
Harnley, J.	18	0					
Harold, Eng. Com'r H. F., R.N.(ret)	5	0	0	Jack, J. W. A.	5	0	0
Harris, C. G.... ..	2	2	0	Jackson, C.	2	2	0
Harris, D. J.	2	2	0	Jackson, R.	2	2	0
Harris, J. E. F.	2	0	0	Jackson, W. G.	1	0	0
Harris, W. E.... ..	1	0	0	Jacques, C. L.	1	1	0
Harrison, D. M.	1	0	0	Jamieson, J.	5	0	0
Harrison, S. J.	2	2	0	Jenkins, D.	5	5	0
Harrison, S. B.	1	1	0	Jennings, F.	1	1	0
Harrower, E.	5	0	0	Jennings, W. M.	2	2	0
Harvey, A.	2	2	0	Jewitt, D. E.	3	3	0
Harvey, G. C.	1	1	0	Johnson, J.	5	5	0
Harvey, Mrs. J. A.	2	2	0	Johnson, T. F. (5 donations)	2	9	0
Harvey, J. B.	5	5	0	Johnstone, O.	5	5	0
Hawkins, R. F.	1	1	0	Joiner, A. D.	5	5	0
Hay, C.	1	1	0	Jones, A.	1	1	0
Hayward, S. G.	10	10	0	Jones, C. F.	2	2	0
Hearnden, H. E.	2	2	0	Jones, C. H.	1	0	0
Heck, W. D.	5	5	0	Jones, D. R.	1	0	0
Hedworth, W. A.	1	1	0	Jones, F. M.	2	2	0
Helyer, R. L., D.S.C.	2	2	0	Jones, H. S.	2	2	0
Henderson, J. M. (3 donations)	3	2	0	Jones, J. I.	10	0	0
Henriques, W. Q., O.B.E.	10	10	0	Jordan, H. J.... ..	16	0	
Heppell, J. D.	1	1	0				
Hepton, M. F.	1	1	0	Kay, R. C.	7	10	
Herbert, C. W.	10	6		Keay, J., M.B.E. (3 donations)	2	0	0
Heron, W. M.	2	9	0	Keith, A. M.	1	0	0
Herriot, J. C.... ..	5	5	0	Kelsey, S.	5	5	0
Heys, E.	10	6		Kendrick, R.	2	2	0
Hibble, Lieut. Com'r(E) W. G., R.N.V.R....	10	6		Kennedy, A. C.	1	1	0
Hicks, W. F.	1	1	0	Kennedy, D. S.	2	0	0
Hillier, H., O.B.E.	5	5	0	Kennedy, P.	1	1	0
Hindmarch, T.	10	0	0	Kenward, R. A.	20	0	0
Hoare, A.	3	3	0	Keppie, G. B.... ..	1	1	0
Hoare, J. H.	5	0	0	Kerridge, W. W. (2 donations)	10	0	0
Hodgson, M. J.	5	0	0	Key, F. F.	1	0	0
Hogan, D. G.	1	7	0	Keymer, A. R.	10	10	0
Hogg, R. S.	3	3	0	Kinder, R. N.	1	1	0
Holdforth, A. E.	1	0	0	King, F. V.	5	5	0
Holker, J.	1	8	0	King, W. C.	1	10	0
Holland, R. L.	10	10	0	Kingcome, Eng. Vice-Admiral Sir J., K.C.B.	10	10	0
Holm, H. H.	5	0	0	Kirby, W. H.... ..	1	5	0
Holroyde, J. B.	2	0	0	Kirkwood, R.... ..	1	0	0
Hook, R. J.	1	1	0	Kirstein, I. (2 donations)	20	0	0
Hoppner, R.	4	0	0	Kitching, G. W.	10	10	0
Horton, J. C. V.	3	3	0	Knap, H.	5	5	0
Hosking, H. H.	10	6		Knapton, R.	5	0	0
Hough, H.	1	0	0	Knipe, W. D.... ..	1	1	0
Hounsell, H.	1	2	0	Knowles, T. W. G.	10	0	0
Houston, J.	5	0	0	Kode, J.	1	1	0
Houston, W. C.	5	0	0				
Howard-Mercer, Com'r(E) L. J. F., R.N. ...	1	6	3	Lacey, R. C.	10	0	0
Howe, L. H.	1	6	3	Laidlaw, A. H. (2 donations)	10	10	0
Howell, T. H.	5	0	0	Lamb, D. P.	2	2	0
Hudson, C.	5	5	0	Lamb, J., O.B.E.	5	0	0
Hughes, J. B.... ..	1	12	6	Lambert, E. A.	3	3	0
Humphreys, H. S.	5	5	0	Lang, W. V.	2	2	0
Hunter, W. P.	2	2	0	Larsen, W. L. (2 donations)...	1	1	0
Hussey, R. M.	1	1	0	Larter, F. A.	10	10	0
Hutchinson, G. R.	1	10	0	Laverty, J.	2	0	0
				Lawrie, P.	2	2	0
Imray, W. N.... ..	2	7	6	Lawson, J. W.	5	5	0

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.		
Leggat, W. A.	5	0	Miller, W. A....	...	2	0	0
Legh-Jones, G.	5	5	Mitchell, J. C.	...	1	1	0
Leigh, L. C.	10	6	Mitchell, J. E.	...	3	3	0
Leighton, T. J.	2	2	Mitchell, R. J.	...	2	0	6
Lewer, L. J.	6	0	Moffatt, C. ...	...	2	2	0
Ling, R. J. K.	10	6	Moloney, Eng. Capt. J. E. C.I.E., R.I.N.(ret)	...	3	3	0
Liston, A. G., M.B.E.	3	3	Montgomery, H. L. ...	...	1	0	0
Littlewood, Capt.(E) C., O.B.E., R.N.	1	0	Moore, A. ...	...	5	0	0
Llewellyn, R. J.	10	0	Moore, B. ...	...	1	0	0
Loader, E. J.	5	0	Moran, R. B....	...	1	1	0
Logan, R. M....	2	4	More, G. ...	...	2	0	0
Logie, J.	3	3	Morgan, J. H.	...	1	9	0
Lowes, R. H....	1	1	Morgan, P. F.	...	10	6	
Lowrie, J. C.	21	0	Morris, L. R....	...	10	6	
Lund, B.	1	1	Morrison, H. T.	...	1	1	0
					Morrison, T. S.	...	10	10	0
MacAdam, R.	5	0	Morton, J. ...	...	1	1	0
MacCallum, J.	1	0	Morton, J. R.	...	2	2	0
MacColl, H. F.	2	2	Morton, T. ...	...	5	0	0
Macfarlane, F. A.	15	0	Mosey, H. Y.	...	10	10	0
Mackenzie, J.	5	0	Mosey, J. Y. ...	...	10	10	0
Mackinlay, J. H.	2	0	Muckle, W. P.	...	10	6	
Mackinnon-Pearson, I.	5	5	Muir, J. M. (3 donations)	...	2	0	6
Macleod, J.	2	0	Munby, M. A.	...	1	0	0
Macleod, N. A.	1	1	Mundie, J. D. B.	...	2	0	0
Macleod, R. M.	2	2	Murray, G. ...	...	1	1	6
Macmillan, M. A.	2	10	Murray, J. L....	...	1	1	0
Macniven, H.	1	1	Murray, R. M.	...	2	2	0
Mactavish, J. A.	1	0	Murrison, A. R.	...	1	1	0
McAlpine, R.	1	0	Musker, H. ...	...	1	1	0
McAuslan, D. F.	1	0	Musset, G. A.	...	2	2	0
McAuslan, W., I.S.O.	5	0					
McCleave, P. R.	5	0	Nailer, D. N....	...	1	1	0
McColl, K. G.	5	0	Neill, F. G. ...	...	2	2	0
McConnell, W. E.	5	5	Neilson, J. B....	...	1	0	0
McCormick, A. P.	5	5	Nevill, J. H. ...	...	5	5	0
McCowatt, J. W.	10	0	Newall, R. ...	...	1	0	0
McCreery, R. W.	5	0	Newell, R. ...	...	5	5	0
McDonald, D.	1	0	Newell, W. S....	...	25	0	0
McDougall, A.	5	0	Newman, E. E. R.	...	1	0	0
McGregor, P.	1	0	Newton, H. ...	...	10	0	0
McJannet, R. C.	2	0	Nicholas, E. A. L.	...	1	1	0
McKay, G. R.	1	0	Nicholson, D. H.	...	20	0	0
McKay, L.	1	0	Nicholson, J. S.	...	5	0	0
McKenzie, J. A.	5	0	Nicholson, T. L.	...	5	5	0
McKenzie, W. C.	10	10	Nicol, K. ...	...	1	0	0
McLachlan, W. O.	2	2	Nicolson, A. ...	...	1	1	0
McLaughlin, B. A.	1	0	Niven, W. J. ...	...	10	10	0
McLaughlin, W.	12	0	Noake, Eng. Capt. L. C. S., R.N.	...	5	0	0
McMaster, E.	5	0	Noel, T. H. ...	...	5	0	0
McNeil, J. H.	1	0	Norledge, G. V.	...	3	3	0
McPherson, R. G.	2	2	Norman, H. H.	...	2	2	0
Maddocks, K.	1	1	Olsen, L. M. ...	...	2	2	0
Magill, R.	5	0	O'Neill, Eng. Lt. Com'r G. A., R.N.(ret)	...	3	3	0
Mansfield, H. F.	2	2	O'Shea, J. C....	...	5	5	0
Markes, J. E.	1	1	O'Sullivan, J. V.	...	1	0	0
Markes, J. W....	1	1	Oates, A. ...	...	1	0	0
Marsh, K. H....	5	0	Oddy, F. W. ...	...	5	0	0
Marsh-Jones, D. S.	10	6	Oliver, J. T. ...	...	2	2	0
Martin, A.	5	0	Onyon, Eng. Capt. W., M.V.O., R.N.(ret) (2 donations)	...	8	3	0
Mason, W. A.	5	0	Ormiston, G....	...	10	10	0
Mather, A. H.	10	10	Otsing, G. ...	...	1	0	0
Mattison, S. M.	3	0	Owens, P. R. ...	...	3	3	0
Mauger, R. L.	5	0	Oxton, D. T....	...	1	1	0
Maundrell, H. B. H....	10	0					
Mees, E. E.	75	0	Palmer, J. E. ...	...	2	2	0
Mellor, W.	10	0	Palmer, R. P.	...	2	2	0
Melrose, J.	1	0	Pappius, Sub. Lt.(E) S. W., P.N.	...	2	0	0
Merrick, R. H.	5	5	Parker, E. H....	...	50	0	0
Millar, P.	2	2	Parker, H. A....	...	10	10	0
Miller, G. W. H.	2	0	Parker, J. B. ...	...	10	0	0
Miller, L.	2	2					

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Parker, M. W. E.	2	0	0	Ritchie, F. G. (2 donations)...	30	10	0
Parnell, C. S....	1	8	0	Robb, F.	5	0	0
Parry, E. U.	2	2	0	Robb, J. L.	1	0	0
Parry, J. M. B.	1	0	0	Roberts, J.	10	0	0
Parsons, E. D.	10	0	0	Roberts, T. M.	2	2	0
Parsons, J. T.	3	3	0	Robertson, A., C.C.	100	0	0
Parsons, R. W.	7	6	0	Robertson, Miss D.	5	0	0
Paszyc, A.	1	1	0	Robertson, T. (2 donations)...	2	10	0
Patrawala, J. A.	5	0	0	Robins, C. R. (2 donations) ...	5	17	4
Patterson, G.	1	7	6	Robinson, D....	5	0	0
Paul, A.	5	5	0	Robinson, E.	1	1	0
Payne, J. E. M. (4 donations)	6	6	0	Robinson, E. F. B.	10	0	0
Peacock, J.	5	5	0	Robinson, M....	1	0	0
Pearson, G. H.	1	1	0	Robson, T. W.	3	3	0
Peck, F. H.	2	2	0	Rodgers, W.	10	0	0
Peebles, A.	1	1	0	Roffey, C. E.	10	10	0
Pemberton, E.	10	6	0	Ronald, W.	1	0	0
Pennell, D.	1	1	0	Rooks, G.	5	5	0
Perkins, J. N....	1	1	0	Roper, F. W.	2	2	0
Peterson, A. S.	2	0	0	Rorison, D. G.	5	0	0
Pigott, S. T.	3	3	0	Rose, F. H.	1	0	0
Pinches, H. E.	1	0	0	Ross, D. F.	5	5	0
Pinkney, R. B.	5	5	0	Ross, L.	5	0	0
Pinnock, W. T.	2	2	0	Rotter, J.	5	0	0
Piper, Lieut.(E) J. J., D.S.C., R.N....	1	0	0	Rouse, F. J.	1	1	0
Pittas, P. P. C., B.Sc.	2	2	0	Routledge, J. (2 donations) ...	5	0	0
Plastow, E. C.	1	0	0	Rowe, R. H.	2	0	0
Pobes, J.	10	0	0	Roy, L.	5	0	0
Porn, M.	25	0	0	Russell, H.	10	0	0
Postlethwaite, W. E....	1	1	0	Ryland, W. H.	1	1	0
Potts, V.	2	2	0				
Powrie, R. P....	1	1	0	Sainsbury, C. B.	2	0	0
Pratt, J. A.	10	0	0	St. Jorre, G. de	1	1	0
Preshaw, R. A.	5	0	0	Sakala, V.	1	1	0
Press, W. J.	2	2	0	Sampson, W....	5	0	0
Preston, J. J....	3	0	0	Samson, C.	1	1	0
Pritchard, Mrs. D. G.	2	2	0	Samuels, H. A.	1	0	0
Probert, R. C.	2	2	0	Sanderson, T. W.	5	5	0
Procacci, G.	2	0	0	Sandilands, A.	1	0	0
Procter, R. H.	5	5	0	Saul, Com'r(E) W. H., R.N.R.	2	1	2
Pugh, Com'r(E) F. H., O.B.E., R.N.	2	0	0	Saunders, K. A.	5	5	0
Purves, Lieut. Com'r(E) F. W., R.A.N.	1	1	0	Sawdy, Lieut. Com'r(E) E. J., M.B.E., R.N. (2 donations)	2	10	0
				Schofield, E.	10	6	0
Quarrell, A. P.	5	0	0	Schwerenski, J.	2	17	0
Quayle, J. (2 donations)	1	11	0	Scorer, P.	3	3	0
				Scott, C. M.	5	5	0
Rabady, P. N.	5	0	0	Scott, F. S.	10	6	0
Rabidge, W. F.	3	3	0	Scott, S.	10	0	0
Radcliffe, J. E.	2	2	0	Scott, W. I.	1	5	0
Ralfs, C. A. G.	1	1	0	Scullard, G. T. B.	10	6	0
Ramsey, J. W. (2 donations)	10	10	0	Seager, Sir Leighton, C.B.E., D.L., J.P.	10	10	0
Ramsden, J. S.	10	0	0	Seales, G.	18	0	0
Rawlings, P. H.	2	0	0	Sears, A. W.	5	0	0
Rea, P. K.	5	0	0	Sephton, W.	10	6	0
Reed, A. H. B.	1	1	0	Shannon, T.	10	0	0
Reed, J. J.	10	6	0	Shapley, F.	2	2	0
Reed, N. H.	2	2	0	Shaw, A. R.	5	0	0
Reid, A. N.	3	3	0	Shrubsall, H. P.	1	1	0
Reilly, J. B.	3	0	0	Shutt, H. J.	10	6	0
Renaut, F. W.	5	0	0	Sidell, L. A. W.	1	0	0
Rendle, W. F.	1	0	0	Simmons, A.	1	1	0
Reynolds, A. C.	2	2	0	Simpson, J.	1	1	0
Rhynas, J. A....	21	0	0	Sims, P. J.	2	2	0
Riach, J. E.	2	0	0	Slater, Com'r(E) C. W. L., R.N.R.	3	3	0
Richardson, Lieut.(E) W. A., E.M.S.	1	1	0	Sloss, J.	10	6	0
Richmond, Sir J. R., K.B.E.	500	0	0	Small, J.	3	0	0
Riddell, A. R....	1	1	0	Smart-Dagleish, J. G. C.	2	2	0
Ridley, H.	5	0	0	Smeaton, R., O.B.E....	10	10	0
Ridley, J. J.	2	2	0	Smethurst, J. M.	1	1	0
Ringshaw, H....	5	0	0	Smith, Eng. Com'r D. Hastie, R.N.(ret)	2	2	0
Rischmiller, G. L.	2	2	0	Smith, F. A.	2	7	0
Ritchie, C. (3 donations)	6	9	11				

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Smith, G. F.	2	0	0	Traill, J. H. D.	2	2	0
Smith, J. L.	2	2	0	Train, J. T.	1	1	0
Smith, R.	5	0	0	Trenoweth, Eng. Com'r S. B., R.I.N.(ret)	2	2	0
Smith, R. V.	1	1	0	Triolo, E.	5	0	0
Smith, S.	1	0	0	Trotter, S.	2	0	0
Smith, S. A.	10	0	0	Turnbull, G. M.	5	5	0
Snowdon, J. B.	1	1	0	Turnbull, J., O.B.E.	3	3	0
Soanes, E. G. (2 donations)	6	16	0	Turner, F. L.	1	0	0
Somerville, E. H.	4	0	0	Turner, Eng. Vice-Admiral Sir F. R. G., K.C.B., O.B.E.(ret)	5	5	0
Souchotte, E. (2 donations)	5	0	0	Turner, G. H.	1	1	0
Soutar, G.	1	1	0	Turner, J. H.	2	2	0
Spanner, E. F., R.C.N.C.(ret)	10	0	0	Turner, N.	1	0	0
Spearpoint, H. T.	5	5	0	Vanston, J. J.	50	0	0
Speirs, J.	1	1	0	Vella, D.	3	0	0
Stables, D. B.	1	1	0	Vickerstaff, H.	3	0	0
Steel, W. H.	1	0	0	Viner, R. P.	1	1	0
Steele, J. E.	1	1	0	Vitt, G.	3	3	0
Steele, Eng. Com'r W. R., R.D., R.N.R.	5	5	0	Vogan, R. J.	2	7	6
Steele, Mrs. W. R.	2	12	0	Walker, A. J.	1	1	0
Stephen, J. G.	5	0	0	Walker, F.	2	2	0
Stephens, E. R.	1	1	0	Walker, G. W.	1	1	0
Stephenson, B. (2 donations)	15	15	0	Walker, H. H. R.	5	0	0
Steven, W. L.	1	1	0	Walker, J. I.	1	1	0
Stevens, I. K.	1	0	0	Walker, R.	1	0	0
Stevenson, J.	2	0	0	Walker, T.	3	0	0
Stevenson, R. A.	2	2	0	Walker, T. H. V.	3	3	0
Stewart, Sir Frederick C.	200	0	0	Wallace, R.	5	5	0
Stirling, R.	10	0	0	Wallis, W. R.	1	10	0
Stokoe, C. L.	5	5	0	Walpole, W.	1	1	0
Storey, A. N.	5	10	6	Walsh, T. J.	5	0	0
Strang, J. W.	2	2	0	Walter, Lieut.(E) H. P., D.S.C., R.N.	2	0	0
Stuart, J. B.	2	0	0	Wanless, R.	2	0	0
Stubbs, J.	5	0	0	Ward, M. R. (2 donations)	1	1	1
Stutchbury, R. S.	12	6	0	Wardle, F.	1	1	0
Studd, C.	1	1	0	Wardropper, M.	1	0	0
Swinburne, A. H.	5	0	0	Warner, R. J. L.	1	1	0
Talbot, F. B.	1	1	0	Warren, F. H.	1	0	0
Taylor, G.	5	5	0	Watkins, B. L.	1	0	0
Taylor, G.	5	0	0	Watkinson, P.	2	2	0
Taylor, H.	10	0	0	Watson, A. G. S.	5	0	0
Taylor, H. H.	2	0	0	Watson, E.	1	0	0
Taylor, H. T.	10	0	0	Watson, G. R.	1	6	0
Taylor, H. W.	3	3	0	Watson, J.	5	0	0
Taylor, J. H. (3 donations)	4	0	0	Watt, A. (2 donations)	7	7	0
Taylor, J. McFarlane	5	0	0	Way, C. T.	5	0	0
Taylor, J. W.	3	0	0	Webb, Lieut.(E) E. C., R.N.	2	2	0
Teasdale, J. J.	2	2	0	Webster, D. G.	5	0	0
Teasdale, L.	1	1	0	Weir, J. G.	500	0	0
Temple, J. L. V.	5	5	0	Weir of Eastwood, The Rt. Hon. Viscount, G.C.B., P.C. D.L.	500	0	0
Terry, G. W.	5	5	0	Weir, P.	1	0	0
Thomas, A. D. (2 donations)	1	0	0	Weller, H. C. G., M.B.E.	3	3	0
Thomas, I. J.	5	5	0	Wells, R. H.	1	1	0
Thomas, S.	7	6	0	Welsh, R. J.	10	10	0
Thompson, G. F.	1	1	0	Westwood, R. E.	5	0	0
Thompson, H. G.	5	0	0	Wethered, V. D.	5	0	0
Thompson, N. E.	10	0	0	Wharton, A. J.	2	2	0
Thompson, R.	5	0	0	Whayman, Eng. Rear-Admiral W. M., C.B., C.B.E.(ret)	5	5	0
Thomson, A.	2	2	0	Wheadon, H. J.	5	0	0
Thomson, E. A.	10	10	0	White, J.	2	0	0
Thomson, J.	5	0	0	White, N.	2	2	0
Thomson, J. B.	1	1	0	White, P. J.	12	6	0
Thomson, J. O.	2	2	0	Whiteley, C. W.	1	1	0
Thomson, J. P.	5	0	0	Whittle, Com'r(E) E. A. G., R.N.	3	3	0
Thorburn, K. C.	1	1	0	Whitty, S. B.	10	0	0
Timpson, A. F. C., M.B.E.	21	0	0	Whyte, S.	1	1	0
Todd, H.	2	0	0	Wiggins, W. E.	3	3	0
Tomlinson, W. (2 donations)	15	0	0				
Tonkin, B. C.	1	1	0				
Torrie, J. P. (2 donations)	3	3	0				
Trail, A. J.	5	5	0				

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Wilkins, V.	5	5	0	Windrum, R.... ..	2	2	0
Wilkinson, B. A.	1	0	0	Wolvers, H. J.	2	2	0
Willcocks, J. D.	1	0	0	Wood, F.	5	0	0
Williams, D. A. S.	5	5	0	Wood, H. G.... ..	10	0	0
Williams, H. D.	5	0	0	Wood, L. (2 donations)	5	15	6
Williams, M. D. E.	5	0	0	Woodeson, W. A.	10	0	0
Williams, N.	8	5		Woods, A. R. T.	50	0	0
Williams, R. N.	1	1	0	Woof, R.	1	1	0
Williamson, A. S.	5	0	0	Woolley, A. A.	10	0	0
Williamson, D. J.	1	1	0	Wren, I. L.	2	2	0
Williamson, L.	1	1	0	Wright, N. L.	4	4	0
Willmott, E. W. (2 donations)	1	17	3	Wright, W.	10	6	
Wilson, A. (2 donations)	3	2	0	Wrigley, C. F.	1	0	0
Wilson, A. H.... ..	3	3	0	Wynn, O. E. B.	10	10	0
Wilson, A. J.	1	1	0	Wynne, J. F.	2	2	0
Wilson, H. A.	3	3	0				
Wilson, J.	1	1	0	Youldon, F. W. (5 donations)	21	7	6
Wilson, J. F. S.	5	0	0	Youngs, R. C. (2 donations)	2	0	0
Wilson, N.	2	2	0				
Wilson, R. H.... ..	5	5	0	Zinoviev, Eng. Capt. S. (2 donations)	3	2	0
Wilson, W. R. M.	1	7	6	Zulver, C.	5	5	0
Wiltshire, S. C.	2	0	0				



The Rt. Hon. Lord Rotherwick
(President)

THE RIGHT HONOURABLE LORD ROTHERWICK

Lord Rotherwick, 1st Baron, created 1939, of Tylney, was born in 1881, the fifth son of the late Sir Charles Cayzer, Bart. He was educated at Rugby School and at the outbreak of the 1914/18 war was second in command of the Q.O.R. Glasgow Yeomanry. He served throughout the war and, as Major H. R. Cayzer, commanded the 24th Division Mounted Troops in France from 1915/17. From 1918/22 and again from 1923/39 he was Conservative Member of Parliament for Portsmouth, South. He was created a Baronet in 1924. He was Chairman of the House of Commons Shipping Committee 1932/39 and of the House of Commons Naval Committee 1936/39, and a member of the House of Commons Select Committee on Estimates 1934/36. In 1940, Lord Rotherwick raised and trained 25th Hampshire (Rotherwick) Bn. Home Guard which Bn. he commanded until 1943.

Lord Rotherwick's father founded the Clan Line in 1878; Lord Rotherwick was appointed a director of this company in 1903 and has been a director of Cayzer, Irvine and Co., Ltd. since its incorporation in 1907. He was Vice-Chairman of both from 1918 and succeeded his brother, the late Sir August Cayzer, Bart., as Chairman of both in 1943. He is also Chairman of the following associated companies: British and South American Steam Navigation Co., Scottish Shire Line, Ltd., Houston Line (London), Ltd., Turnbull Martin and Co., Ltd., Greenock Dockyard Co., Ltd., Scottish Lion Insurance Co., Ltd., Scottish Lion Ship-repairing and Engineering Co., Ltd., Clan Engineering Patents, Ltd., and The Cayzer Trust Co.

He was President of the Chamber of Shipping of the United Kingdom 1941-42, first President of the General Council of British Shipping 1941, and Alternate Chairman of the Shipping Advisory and Allocation Committee 1947.

He was appointed a Justice of the Peace for Glasgow in 1905 and for Hampshire in 1936 and a Deputy Lieutenant for Hampshire in 1936 and for Sussex in 1948.

Two of his sisters were married to well-known Naval officers, Admiral of the Fleet Earl Jellicoe and Admiral of the Fleet Sir Charles E. Madden, Bart., G.C.B., O.M.

He has always been a very keen horseman, playing polo and riding point-to-point in his younger days, and he was for some years Master of the Garth Hunt. His greatest hobby at present is his gardens and those at Tylney Hall, from which he moved two years ago, were very well known, while those at Sedgwick Park, widely known for their beauty in the past, are now being re-established and improved.

Lord Rotherwick married Freda Penelope, daughter of the late Colonel Rathbone, and has two sons and two daughters.