

Transactions of the
INSTITUTE of MARINE ENGINEERS

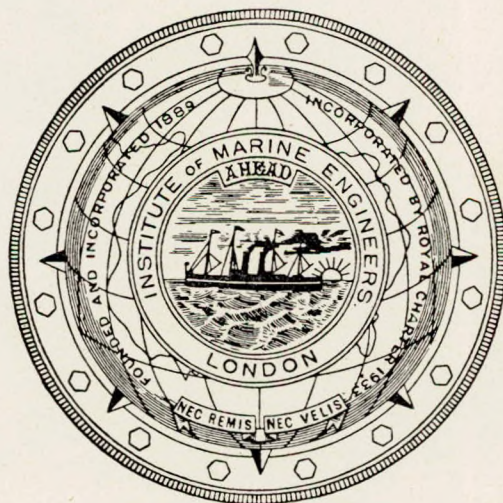
FOUNDED 1889

INCORPORATED BY ROYAL CHARTER, 1933

To Advance the Science and Practice of Marine Engineering

Patron: HIS MAJESTY THE KING

Vol. LX



Session 1948-49

President: Com'r Sir ROBERT MICKLEM, C.B.E., R.N. (ret.)

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Members of the Guild: G. H. L. OWEN, G. SPECK, A. F. C. TIMPSON, M.B.E.
Secretary: B. C. CURLING

Minutes of Proceedings of the Sixtieth Annual General Meeting

Held on 29th March 1949

CHAIRMAN: COM'R SIR ROBERT MICKLEM, C.B.E., R.N.(ret), (President)

The sixtieth Annual General Meeting of the Institute was held in the Lecture Hall of the Institute, 85 Minories, London, E.C.3, on Tuesday, 29th March 1949 at 5.30 p.m. The President was in the Chair and was supported by the President-designate (The Rt. Hon. Lord Rotherwick), the Chairman of Council (Mr. R. K. Craig), the Vice-Chairman of Council (Mr. A. Logan), the Honorary Treasurer (Mr. A. Robertson) and the Secretary (Mr. B. C. Curling).

THE PRESIDENT, opening the meeting, said he would at once proceed with the formal business on the agenda by requesting the Scrutineers retired to examine the voting papers for Officers and Members of the Council.

Annual Report of the Council

The SECRETARY presented the Annual Report of the Council (see page x) from which he read excerpts.

Financial Statement

The HONORARY TREASURER presented the Annual Financial Statement for the year ended 31st December 1948 and said:

The auditors' report reads as follows:—

"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."

Their report is more detailed than in previous years and certainly brings out some interesting differences between our accounts this year and those of last year. There are, however, some comparisons which can justifiably claim our attention and to which I should like to refer.

Revenue

Owing to the increased subscription rates operating from January 1948, the increase of revenue from subscriptions is very substantial and amounts to £2,763 2s. 2d. Against this, however, has to be set an increase in our expenditure after deducting the £1,000 set aside for the renewal of premises of £2,864 6s. 8d.

Repairs have also cost £585 14s. 11d. against only £80 11s. 1d. for the previous year. Some of this is recoverable from the War Damage Commission.

Fortunately, however, we have received considerably more from our advertisements than in the previous year, an increase of £873 2s. 3d. This, with small increases from entrance fees and interest from investments, shows a total increase of income of £3,759 1s. 7d. The net result is an increase of £105 5s. 1d. on balance of income over expenditure, after providing £1,000

reserve (which was not provided last year), the balance being £478 16s. 3d.

Unfortunately the final figure for the advertisement income was not available at the time these accounts were prepared. We now know that the figures shown in the accounts of £3,839 17s. 0d. will definitely be exceeded by an amount of £108 12s. 1d.

The question of our advertisement income was raised at our last Annual General Meeting. This has been very fully investigated and under a new agreement with our contractors we shall materially benefit in 1949. We have only been able to benefit from this new agreement partially during the last three months of 1948.

The Council have thanked Mr. Hutchinson for the great help and technical assistance he has given in arriving at this new agreement.

By adding the cost of printing the TRANSACTIONS, viz.: £4,005 1s. 1d. to that of printing the advertisements, the total cost comes to £5,465 3s. 9d. against the income from advertisements of £3,839 17s. 10d. leaving the net cost to us of £1,625 5s. 11d.

Increased costs of printing during the year have been heavy due to three factors, i.e., additional cost of paper 10 per cent, 12½ per cent increased composition charges and the number of copies printed has advanced from 5,400 to 6,100 per issue.

It is an interesting point to note the total cost of printing and posting the TRANSACTIONS is £6,735 3s. 0d. roughly £1 1s. 0d. per member: the income we receive from advertisements thus makes a substantial difference to our finances.

Under general expenses you will note staff salaries and clerical assistance stand at £4,409 10s. 1d., an increase over the previous year of £835 8s. 2d. This now includes National Health and Insurance contributions which it did not do in the previous year's accounts.

Affiliation subscriptions and contributions to institutions for research are increased by £20 10s. 6d. the principal subscriptions being:—

	£	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
British National Committee World Power Conference	4	14	6

In this connexion I may add that the fourth World Power Conference is to be held in London in 1950. The General Committee have paid the Institute a compliment by asking me to be one of the small committee arranging for the necessary reception and entertainment in connexion with this conference.

The sundries item of £592 9s. 2d. under "General Expenses" includes Xmas gratuities, a gratuity to Mrs. Hastie

Annual Report

Smith, a contribution towards the expenses of the Swansea local section and a large number of small items.

Balance Sheet

Most of the items on both sides of the balance sheet remain very much the same as in 1947 with the following exceptions:—

Life subscriptions are increased by 160 guineas, four members having taken this up during the year.

Our three publications show increased profits on sale of £382 19s. 6d.

Reserve for renewal of premises already referred to is increased by £1,000 to £6,000.

The pension fund is increased by £259 14s. 11d. to £1,015 2s. 4d.

This question was raised at last year's annual meeting and has been carefully considered during the year by the Council, additional policies having been taken out for additional members of our staff as already intimated in the secretarial report.

Investments

You will notice we have purchased £1,000 3 per cent Savings Bonds 1965/75 at a cost of £1,007 16s. 0d.

During the year we had one major financial transaction and this applied to our three funds, i.e., The Institute General Account, The Guild of Benevolence and the National Memorial. We held in the three funds £17,200 in Guaranteed Irish Land Stock 3 per cent. This was sold at 99½ per cent, showing a loss as compared with the price we paid at the time of purchase, but we bought in its place £17,200 3 per cent Transport Stock at 98⅞ making a profit on the re-investment of £159 0s. 9d. This stock has appreciated and now stands at 101¼. It has proved quite a good exchange though in each of our funds the accountants show the stock as having been sold at a loss.

I stress this point because the loss on the sale of the Irish Guaranteed Stock is shown as a debit against the balance of revenue and expenses account of £128 4s. 7d. resulting in an increase of our capital account by only £350 11s. 8d. bringing our final total to £38,884 1s. 4d. City premises remain at original cost but no account is taken of the surrender value of the Building Redemption Policies now worth £3,007.

Guild of Benevolence

The auditors were able to give me the following figures yesterday:—

	£	s.	d.
Capital Fund	26,670	6	6
J. H. Silley Memorial Fund	26,447	14	4
Revenue Funds	5,949	5	0
	£59,067	5	10

an increase of £4,787.

Revenue from all sources is decreased by £196 and totalled £2,148, due mainly to our not having received any contribution from King George Fund for Sailors and some falling off in annual subscriptions.

Subscriptions amounted to £481 18s. 3d.

The income from investments and ground rents totalled £1,666 against £1,506 in 1947, an increase of £160.

We disbursed £1,586 6s. 9d. during the year in relief, practically the same as in the previous year of £1,587 12s. 6d. Excess of income over expenditure is £413 0s. 6d.

Ground Rents produced £408 against £400 in 1947. We have had to dispose of part of our Ryde property to the local authority and the ground rent this year will be £60 against £70 received annually in the past.

Some adjustments are being made in other of our ground rents due to war damage but taken generally, after calculating the compensation receivable, our income from ground rents will not be materially affected.

James M. Dewar Memorial

I regret to say the executors are not yet in a position to distribute the estate of the late Mrs. J. M. Dewar. They are waiting for the final figures being approved by the inland revenue authorities. These should be passed very soon now. We should be receiving the benefit from this bequest in time for insertion in next year's balance sheet. Interest is, of course, accruing in the meantime to the credit of the fund.

Marine Engineers National War Memorial Fund

This has only increased during the year by £5,924 9s. 3d. of which £1,299 4s. 2d. represents interest on our invested funds. Altogether for two years the interest received on investment capital totals £2,212 5s. 6d.

We have had correspondence with the income tax authorities over the repayment of income tax on investments in this fund. I am glad to say that after some considerable negotiations they have agreed to our contention that we are entitled to remission of income tax and the first cheque, covering part of the amount due, was received only yesterday.

I am hopeful of seeing our new premises arising much earlier than some are inclined to think possible—when the site is settled and plans can be approved, this will, I feel sure, prove to be an incentive to many to subscribe liberally to this Fund.

Surveying the whole of the financial interests of the Institute, I think they can be considered as being extremely satisfactory. Members are getting full value for their subscription, but in view of our developing activities we are bound to be faced with still higher running costs in the future.

Adoption of Annual Report and Financial Statement

MR. H. T. MEADOWS, D.S.C. moving the adoption of the Report and Accounts, said that the increase in membership was most gratifying, and it would seem that if the same rate of increase could be maintained, then at the 70th Annual General Meeting the desire of the Council might well be achieved—that desire “to speak with the compelling voice of every qualified marine engineer.”

The thanks of the members were due to all those responsible for making the year under review such a successful one. He did not think that the five points of the Royal Charter could be continually adhered to without a great deal of unseen work. It would appear to be no sinecure to serve on the Council or a Committee. For most members the only visible sign of this work was in the TRANSACTIONS. Even they must be gratified by the continued excellence of the papers read. He wondered if so many papers of such a high standard, and such a wide interest, had ever before been published in a single year.

The education group had done yeoman work, and the enthusiasm with which their lectures appeared to be greeted showed how much the work of the group was appreciated.

It was indeed pleasing to see that the scars of war had at last been removed from the Institute premises. Those concerned were to be congratulated at the expedition of the work in time for the Annual General Meeting.

Probably one of the most important features of the year was the inauguration of no less than three local sections. It was fitting that the most junior of these, and the farthest away, should be graced by the presence of the Institute's President so soon after its inaugural meeting, nor should the very fine welcome given to the Members of Council on their visit to the Swansea Section go unnoticed.

Regarding the Revenue Account, it would have been noted that the financial position was much better than last year, although the surplus was actually a little less. On the other hand, a substantial sum had been set aside into the Reserve Account for the renewal of premises, which unfortunately could not be done last year. Thanks were due to the Honorary Treasurer, to whose foresightedness such a satisfactory financial statement was made possible.

These remarks would be incomplete without reference to the Secretary's part in making the many activities of the Institute so successful during the past year, nor would it be out

Minutes of Proceedings of Annual General Meeting

of place to thank the other members of the staff, particularly those with whom one came into contact on visiting the Institute, for their unflinching courteousness and desire to help and please at all times.

It gave him great pleasure formally to move the adoption of the Annual Report of the Council and of the Revenue Accounts for the year ending 31st December 1948.

MR. G. B. PLOWS said he fully endorsed the proposal made by Mr. Meadows. It was pleasing to note the progressive increase in the total membership, which had increased 50 per cent in the last ten years. But better still this increase had accelerated during the year under review. The Institute must, however, depend on the younger men, and one would like to see the lower plotted lines on the membership curves emulating the members' line.

Amongst those who had passed on were many eminent engineers who had served the Institute faithfully and well, and they extended to all the relatives their warmest sympathy.

The papers read ranged over many important subjects and had maintained the Institute's high standards. The Junior Section Committee had done a real job of work in arranging for such a fine series of lectures at the various Technical Schools up and down the country and visits to works. This had meant considerable travelling for some members and lecturers and it was hoped their work would bear fruit amongst the younger men. The Southern Junior Branch were fortunate in having Dr. Dorey as President, following Sir John Thornycroft, and members wished this section every success.

Appreciation and thanks were due to all those who had served the Institute so well on the various Committees. As could be seen from the Report, a good deal of work had been done by them. Members would also want to wish the new Local Sections at Cardiff and Swansea every success in their endeavours.

The accounts had already been dealt with by Mr. Meadows, except that income over expenditure showed only £478 16s. 3d. This was actually £455 less than the income derived from investments, but as had been explained the position was not quite as bad as that, because the Institute had been able that year to place £1,000 in reserve for the renewal of premises account, which had not been possible in the previous year. That was sound finance, and the account for building repairs was exceptional for the year. The Institute's finances were very sound, for which they had to thank Mr. Robertson, the Honorary Treasurer, who—he believed—had held the office for practically thirty years, a very fine record. The Secretary, Mr. Curling, was also to be complimented on the Report. It gave him great pleasure to second the adoption of the Report and Financial Statement.

THE PRESIDENT, before putting the Report and Accounts to the meeting for formal adoption asked if any member wished to make any comment.

MR. S. B. JACKSON said with regard to pensions, on which he raised the question at the last Annual General Meeting, the Honorary Treasurer in his remarks and the Annual Report stated that several other members of the staff had been added to the pension list, but he avoided reference to the pensions of those about whom he had asked last year?

The HONORARY TREASURER replied that the matter had been very carefully discussed by a committee appointed by the Council, and the Council had made their decisions. It would not be right or proper to give a detailed answer to the question asked by Mr. Jackson at that meeting beyond stating that full note had been taken of Mr. Jackson's suggestions last year. Members had no need to worry as to how pensioners were to be dealt with in the future as and when pensions became due.

MR. JACKSON said he had written formally to the Secretary after the last Annual General Meeting, indicating that he

wanted it to be taken to a special meeting of members. At the same time, he had arranged an interview with the Honorary Treasurer and had discussed the matter with him. He had been received with a certain sense of hostility and, in fact, thought the remarks he had passed at that meeting were resented. But he had obtained certain information which proved his contentions. As, according to the By-Laws, he was entitled to ask questions on the finances of the Institute, he had enquired very pointedly whether rumours he had heard which he had mentioned at the previous Annual General Meeting were true. At the interview, the Honorary Treasurer had questioned him about what appeared to him (Mr. Jackson) to be strictly irrelevant matters. He however disclosed that arrangements had been made for three members of the staff whom he named. These were not those seven in the present Annual Report who were now additional to the first three.

As a result of the discussion, he had written to the Chairman of Council a letter in which he made *inter alia* the following observations: that the Honorary Treasurer declined to give particulars without the consent of the Council; and that in this respect he suggested that not only must justice be done, but it must be seen to be done. It was a matter of some constitutional importance that members could not obtain information in order to guide them without first obtaining the permission of the Council despite By-Law (55).

He was given to understand that certain policies had been taken out which represented a sum well below half of their average salaries during the last three years of service. Upon asking for further information, he was denied this. He was given to understand certain Minutes had been passed by the Council to the effect that at the time of retirement of any individual the then Council would make further contribution to that given under the policies.

He had been informed that no specific provision had been made by these Minutes and that a future Council could not be held to implement the Minutes of a previous Council, if it felt so disposed, as to the making of any grant. In fact, according to the Honorary Treasurer, a future Council might repudiate the Minutes of the previous Council and in the ultimate contingency if no further provision were made by the Council the recipient of any inadequate pension would have to rely on State assistance.

That state of affairs was distinctly unsatisfactory and the Institute was treating its staff in a manner which would not be tolerated in any commercial firm. In addition, he was given to understand that the main purpose behind the conservation of the Institute's funds was to provide for the future new building. In the Balance Sheet was a sum of £6,000, Reserve for Renewal of Premises, to which £1,000 had been added in the current year. An examination of the Revenue Account would show that the amount provided for Staff Pension Insurance was the very modest sum of £314 14s. 6d., which included provision for all the three members referred to at the last Annual General Meeting as well as the additional staff mentioned in the Annual Report.

The Honorary Treasurer had admitted that the amounts due under the policies were not enough, and that was why consideration had been given by the Council in the Minutes referred to supplementing them with any amounts considered fit at some future date. In his view pension provision must be adequate, certain, definite and not left to the Councils at any future date when it would be too late to appeal.

Without extending the discussion he felt that in all the circumstances instead of providing a sum of £314 for pensions a sum of £1,000 should be allocated to the Pension Fund instead of to reserve for building.

The HONORARY TREASURER, replying to Mr. Jackson, said that the figure of £314 14s. 6d. in the past year's accounts did not represent the cover for the additional policies that had been taken out. Furthermore, it should be remembered that the sum provided represented the annual premiums on policies which had been going on for many years, particularly as far

Annual Report

as Mr. Curling was concerned whose first policy was taken out in 1931.

It was the policy—and he thought a correct policy—not to take out any insurance policy for members of the staff until they had been two years in the employ of the Institute. That had been the ruling ever since insurance policies had been taken up. Reliance was placed upon the insurance companies to pay pensions at due dates and the sum in the balance sheet of £314 14s. 6d. represented quite a considerable sum in the way of insurance policies.

He could assure members that the Council were fully alive to the whole position which had been discussed many times. It must also be borne in mind that if a person joined the Institute at a later age in life—35 or 40 or even 45—the Institute could not be expected to give a heavy pension on retirement. The picture must be looked at from all points of view, and the Council had, he was quite sure, up to the present time dealt with the matter very fairly. Furthermore, he felt sure that the employees, when they came to retire, would be treated quite fairly by the Council.

MR. JACKSON said that did not dispose of his question. He had asked what provision had been made, but the reply had been evasive, and the Honorary Treasurer had himself admitted, in fact, that the amounts were insufficient. Therefore he was still of the opinion that he was justified in raising the matter.

The HONORARY TREASURER said he did not think the Council would agree to his giving detailed information as far as individual policies were concerned. The members had elected the Council to control the Institute's affairs. This was a very vital matter. The Institute had treated their employees fairly in the past and he was quite sure they could be relied upon to treat them fairly in the future.

The Annual Report and Financial Statement were adopted with one dissenting vote.

Presentation of Awards

The CHAIRMAN presented the following awards:

The Institute Silver Medal: Mr. C. F. Rigby, B.Sc.

Extra First Class Engineer's Certificate Examination—
Institute Medal: Mr. S. G. Christensen (Associate Member).

The SECRETARY pointed out that only the preceding week Mr. Christensen had received a handsome award from the Officers' (Merchant Navy) Federation in respect of the same achievement.

Report of Scrutineers

The CHAIRMAN announced that the results of the voting were as follows:

President:

The Rt. Hon. Lord Rotherwick

Vice-Presidents:

J. Carnaghan

T. A. Crompton

R. T. Wilson

F. W. Youldon

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

F. C. M. Heath

Rear Admiral(E) G. H. H. Brown

Honorary Treasurer:

A. Robertson, C.C.

Members of Council:

J. Calderwood, M.Sc.

W. Sampson

A. F. C. Timpson, M.B.E.

T. W. Longmuir

R. W. Cromarty

J. P. Campbell

Com'r(E) L. F. Ingram, R.N.

Induction of President-Elect

The CHAIRMAN said it now remained for him to hand over his office of President to the Rt. Hon. Lord Rotherwick. It had been the custom in the years gone by to have in rotation a shipbuilder, a marine engineer and a shipowner as President. Sir Amos Ayre, the well-known shipbuilder, was their Past President. He himself passed as a marine engineer. This year's President was therefore a shipowner, and they were very fortunate in getting such a distinguished shipowner to take on the job for the next year.

There was no need for him to tell them about Lord Rotherwick. He had had a distinguished career in the House of Commons before going to the House of Lords. He hoped Lord Rotherwick would have as happy a year of office as President of the Institute as he had had himself.

LORD ROTHERWICK said he would first like to thank Sir Robert for his kind remarks. He greatly appreciated the great honour conferred on him by his election as President of the Institute for the ensuing year. He was not an engineer: he was a shipowner. But he had always taken a great interest in design and construction and his company built its own ships in its own shipyard. He could assure members he would do, to the best of his ability, all he could to carry out the duties of President of the Institute, he hoped to their satisfaction.

Lord Rotherwick then took the Chair.

Vice-President, Swansea

The election of Mr. G. Thompson, M.Eng., as Vice-President, Swansea, in succession to the late Major E. W. B. Kidby was unanimously confirmed.

Vice-President, Glasgow

The election of Mr. A. R. Riddell as Vice-President, Glasgow, in succession to the late Mr. L. C. Davis was unanimously confirmed.

Vote of Thanks to the Retiring President

MR. R. K. CRAIG (Chairman of Council) said it was a most pleasant duty he had to perform that evening—to propose a vote of thanks to the retiring President, Sir Robert Micklem. Those members who had read Sir Robert's Presidential Address would know that he was a very busy man, but he had always served the Institute when he possibly could. He had been away a long time abroad, as members would know, and they were very sorry he had been unable to be with them at their Annual Dinner. However, when he was in Australia he was able to convey the good wishes of the Council to the newly formed section in Sydney, Australia, which he gathered was a very keen section. His thoughts had been with the Institute while he was in Australia, and members thanked him for his kind wishes received during the Annual Dinner which he thought everyone had enjoyed.

It was with the greatest pleasure that he proposed the vote of thanks to Sir Robert Micklem.

MR. A. LOGAN (Vice-Chairman of Council) said the Institute was greatly indebted to Sir Robert for his efforts to promote and foster its well-being during his year of office. No doubt the retiring President would have gathered from his contacts with members that marine engineers were very proud of their profession and were very anxious for the Institute to maintain that distinction in the engineering field which it had so honourably earned.

The work done by the Institute during Sir Robert's year of office had been no mean effort. But they were not resting on their laurels. The need for highly qualified engineers in the profession was probably greater today than ever before, and as an Institute they had the responsibility to encourage young men entering the profession and to provide facilities for pooling and discussion of professional experiences. The number of members nominated for election to fill vacancies on the Council

Minutes of Proceedings of Annual General Meeting

and also the number of members present that evening showed the lively interest members were taking in the Institute.

The retiring President, unfortunately, owing to business calls, had been unable to share many of their activities. He had, however, proved himself to be an enthusiastic holder of his office; and when able, both here and in Australia, he had supported the Institute's activities in a very capable manner. He would like to say to Sir Robert how ably Sir Amos Ayre had deputized for him in his absence. Let that remark be a warning! In relinquishing his office as President, he was not necessarily saying goodbye to the Institute.

He had great pleasure in seconding the vote of thanks to the retiring President.

The vote of thanks was carried by acclamation.

SIR ROBERT MICKLEM, replying, expressed his thanks for the remarks of the Chairman and Vice-Chairman of Council. He had very much enjoyed his year of office and must apologise to members for having been away so long, particularly for having been away for the Annual Dinner. He had been extremely sorry to miss it by three or four days, though he knew Sir Amos had done the job with his usual competence.

The Sydney Local Section was a very live body.

He would like to endorse the remark made by Mr. Logan that the necessity for highly trained marine engineers was greater than ever before. With higher pressures and higher temperatures great skill was needed on the turbine side, and the same advance was necessary on the Diesel side. Undoubtedly the Institute was doing invaluable work in fostering the education of the younger engineers and giving shipowners competent engineers to run their ships and the marine engineers competent engineers to build engines for their ships. He could promise them that although he had retired from the presidency—and he had noted Mr. Logan's threat—he would continue to take an interest in the work of the Institute and hoped that from time to time they would be kind enough to ask him to attend some of their functions.

Vote of Thanks to Scrutineers

MR. T. A. BENNETT, B.Sc. proposing a vote of thanks to the Scrutineers, said that he noticed that when Sir Robert, after opening the Meeting, asked the scrutineers to retire, Mr. C. J. Hampshire and Mr. G. H. L. Owen retired but it was not long before they returned and some may have thought that the amount of work they had had to do hardly merited a vote of thanks. But that was not the whole story and if one remembered those voting papers, which this year contained the names of nineteen candidates, it would be obvious that if they had started counting the votes after the meeting had begun the result would not have been available that evening.

Actually most of the work was done the preceding week when the scrutineers had spent many hours counting the votes

and preparing their report. All they had to do this evening was to include the voting papers which had arrived during the last few days. Their job was an onerous one and they definitely deserved thanks for the work they had done.

It gave him great pleasure in proposing a vote of thanks to Mr. Hampshire and Mr. Owen and to propose their re-election.

ADMIRAL KING said he fully endorsed everything Mr. Bennett had said. The job of scrutineering was very necessary and very uninteresting. He had very much pleasure in seconding the vote of thanks and the proposal that Messrs. Hampshire and Owen should be re-elected.

MR. C. J. HAMPSHIRE, on behalf of his colleague and himself, thanked Mr. Bennett and Admiral King for their very kind remarks. The scrutineers had had a job to do and they had just carried on and done it. It had been a long job, not only because of the number of voters, but because the papers had been doubled over and printed on the other side. He appreciated the fact that they could have had a member of the staff to give a hand because quite a number of the papers were sealed together with adhesive tape and a sharp knife was needed to open them; and not only that: quite a few were fastened together with wire staples.

The vote of thanks was passed unanimously, and Mr. Hampshire and Mr. Owen were re-elected scrutineers.

Vote of Thanks to Council and Officers

MR. A. D. TIMPSON, proposing a vote of thanks to the Council and Officers, said the Report showed that the Institute had had a very active year and had a growing membership. This was largely due to the Council, Committees and permanent staff. As the Report showed, the Institute was contributing considerably to the field of the marine engineer. He noted from the Report that Mr. J. S. Robinson, M.A. had been confirmed in the post of Assistant Secretary and wished him every success in that position. He called upon Mr. W. F. Jacobs to second the vote of thanks.

MR. W. F. JACOBS said it gave him great pleasure to second the vote of thanks to the Council and Officers. Everybody appreciated the vast amount of work the Council had put in.

One very great thing about an Institute with a very large number of people scattered was that by their work they did enable an engineer sailing the seas or abroad to be *au fait* with all the latest developments and not an engineering backwoodsman.

The vote of thanks was carried unanimously.

The proceedings then terminated.

Annual Report of the Council

The Institute has reached its Sixtieth Anniversary after another year spent in energetic devotion by the Council and numerous Committees to the purposes for which the Institute was founded in 1889.

One indication of efficiency in the functioning of any society may be seen in a vigorous growth of its membership roll. In this respect the Institute may congratulate itself on the fact that in the ten years—including the whole period of the world war—since its 50th anniversary in 1939 the membership has increased by 50 per cent, i.e. in round figures from 4,000 to 6,000.

The numerical changes in the membership during the past year, resulting in a net increase of 443, are shown in the adjoining table and chart.

OBITUARY

Among the regretted losses by death recorded throughout the year in the monthly TRANSACTIONS were those of the following, who will be especially remembered for their past services to the Institute: Eng'r Rear Admiral S. R. Dight, C.B.E. (Member of Council), B. P. Fielden (Honorary Vice-President), R. L. Gillies (Vice-President), Major E. W. B. Kidby, O.B.E. (Vice-President), G. A. Laing (Vice-President), A. H. Mather (Honorary Vice-President), G. J. Wells (Honorary Vice-President) and Eng'r Com'r D. Hastie Smith (Member and part-time Abstractor on the staff of the Institute).

PRESIDENT-DESIGNATE

The Council were highly gratified by Lord Rotherwick's

Grade	1st Jan. 1948	Transfer		Elected	Died	Resigned	Lapsed	Total 31st Dec. 1948
		From	To					
Past Presidents	9			1				10
Honorary Members	2							2
Members	3,596	1	150	306	51	50	16	3,934
Companions	45			2		3		44
Associate Members	377	12	8	27	4	4	1	391
Associates	1,151	140	13	211	2	13	6	1,214
Graduates	183	6	4	30		3	1	207
Students	140	16		25	1	3	1	144
Totals	5,503	175	175	602	58	76	25	5,946

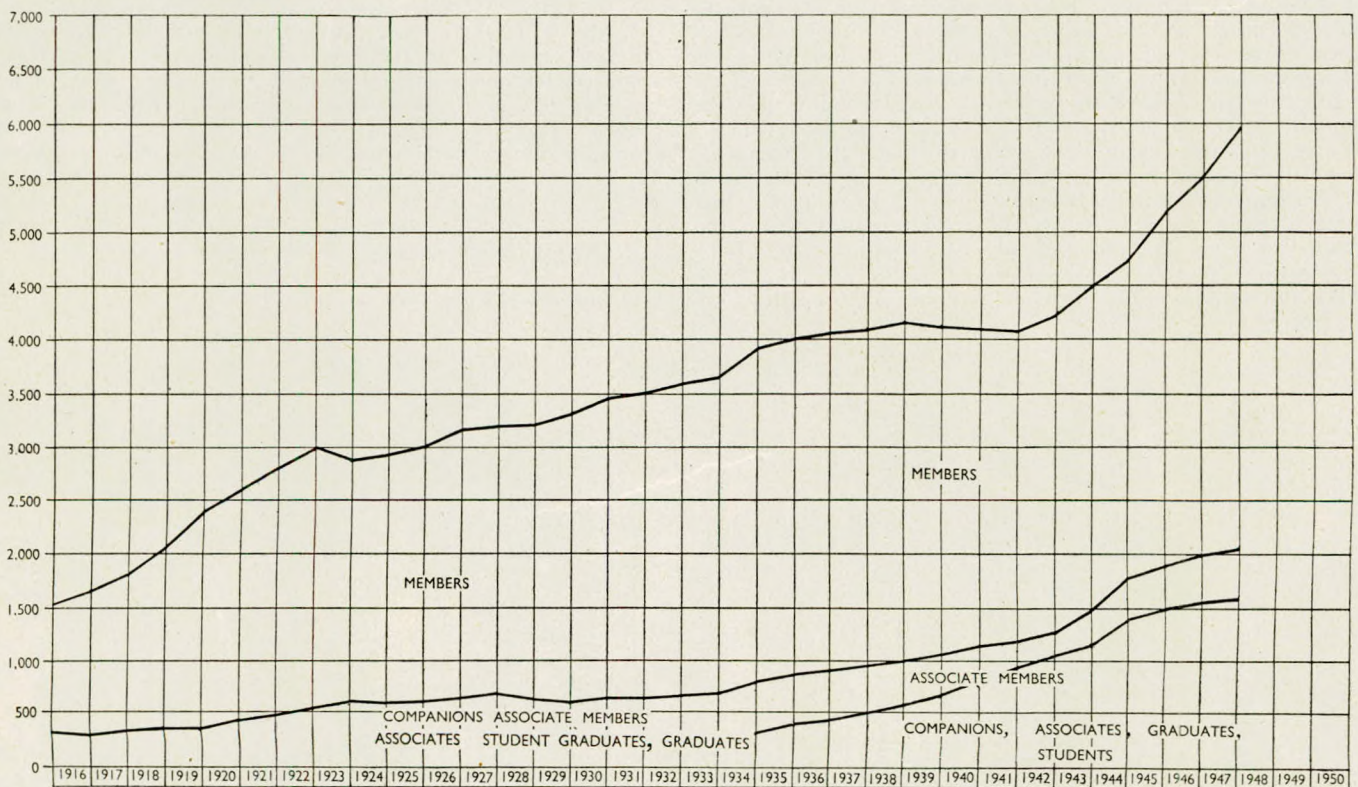


CHART OF MEMBERSHIP

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acceptance of nomination for election as President for the ensuing session. His eminent position in the shipping world—in which, as in the presidential chair also, he succeeds his brother, the late Com'r Sir August Cayzer—and his keen personal interest in the design and construction of ships and their machinery are outstanding qualifications for election in this capacity.

COUNCIL

At the meeting of the Council held on the 12th April 1948, Mr. R. K. Craig was elected Chairman of Council and Mr. A. Logan, Vice-Chairman for the 1948/49 session. Mr. W. Sampson, the immediate Past-Chairman, was co-opted to remain on the Council for the session.

At the May meeting Mr. F. D. Clark was co-opted to replace Mr. H. S. W. Jones as Associate Member of Council for the remainder of the session, on Mr. Jones leaving London to take up an appointment at Cardiff.

VICE-PRESIDENTS

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

Barrow-in-Furness. Dr. G. H. Forsyth was elected Local Vice-President on the resignation of Com'r(E) L. F. Ingram, due to his leaving the district.

Bombay. Mr. T. H. Noel has succeeded Mr. J. Carmichael, who resigned the Local Vice-Presidency on his transfer to Burma.

Hong Kong. On Mr. T. E. Jackson's retirement and return to England, Mr. W. G. R. Coates was appointed Local Vice-President.

Swansea. Mr. George Thompson was elected Vice-President on the death of Major E. W. B. Kidby.

West Hartlepool. Mr. W. Nithsdale having removed from the district, Mr. W. E. Loveridge was appointed Local Vice-President in his place.

REPRESENTATION OF THE INSTITUTE ON OUTSIDE ORGANISATIONS:

Scottish Engineering Students Association

When Mr. John Adam reached the age limit permitted to representatives on the Association Council, Mr. John Bell, Graduate, was appointed to succeed him; shortly afterwards, however, Mr. Bell became ill and Mr. Adam was temporarily re-appointed.

Lloyd's Register of Shipping, Technical Committee

Mr. H. S. Humphreys has been re-elected for a further term of service.

Joint Committee on Materials and Their Testing

On the resignation of Mr. W. D. Heck after long and valued service on this Committee, the Council appointed Mr. W. J. Ferguson in his place.

Northern Advisory Council for Further Education

Mr. Garnet E. Jenkins, O.B.E. has been appointed to represent the Institute on the Northern Council's Advisory Committee for Engineering.

L.C.C. School of Engineering and Navigation, Advisory Committee

Mr. H. Scott having resigned from this Committee owing to ill-health, Mr. W. Sampson has been appointed representative in his place.

British Shipbuilding Research Association, Research Board

Mr. S. A. Smith, M.Sc., has been re-appointed representative for a further two years.

BRITISH STANDARDS INSTITUTION

The Iron and Steel Industry Standards Committee

The original Technical Committee ISE/31 has been disbanded and replaced by Technical Committee ISE/31—Wrought Steels; Sub-Committee ISE/31/1—Carbon Steels; and Sub-Committee ISE/31/2—Alloy Steels.

Mr. W. J. Ferguson has undertaken to represent the Institute on these three Committees.

SFE/1 Nomenclature and Definitions for Solid Fuel Burning Appliances

This Committee has been reconstituted and Mr. W. Dowling has accepted re-appointment as the Institute's representative.

Sub-Committee MEE/103/4: Internal Combustion Engines for Marine Purposes

Mr. A. Logan has been appointed to serve on this Committee.

Committee on Standardization of Valves

On Mr. H. Scott's resignation from this Committee, Mr. A. Logan was appointed as his successor.

PAPERS

The following papers were read and discussed during 1948:—

Date	Title	Author
13th January	Sea Water Contamination of Boiler Fuel Oil and Its Effects	Eng'r Rear Admiral C. J. Gray, D.S.O., R.N.(ret.), and Wycliffe Killner, R.N.S.S.
10th February	Longitudinal Vibration of Marine Propeller Shafting	C. P. Rigby, B.Sc., A.M.I.Mech.E.
9th March	Developments in Marine Reduction Gearing	W. A. Tuplin, D.Sc., M.I.Mech.E.
13th April	The Radiography of Welds	R. F. Bishop, M.A.
11th May	Some Aspects of the Manufacture of Large Seamless Steel Tubes and Hollow Forgings	J. W. R. Naden, F.I.M.
23rd September	*Steam Gunboat Machinery—A Light-weight Steam Plant	Com'r(E) H. A. K. Lay, R.N. and Com'r(E) L. Baker, D.S.C., R.N. (Member).
23rd September	*Notes on the Behaviour of H.M. Ships during the War	N. G. Holt, C.B.E., R.C.N.C. and Capt. (E) F. E. Clemitson, R.N.
12th October	The Heat Pump with Some Notes on Its Application to Air Conditioning in Land and Marine Service	F. Joder.
9th November	Metal Spraying in Relation to Marine Engineering	J. Barrington Stiles, M.I.Mech.E. (Member).
14th December	Latest Developments in Reversible Propellers	Prof. L. C. Burrill, M.Sc., Ph.D. (Member).

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

TRANSACTIONS

The regular publication of the monthly TRANSACTIONS has been maintained during the year. The paper position has improved slightly and has enabled a reversion to a narrower column and a wider spaced type.

The following papers are the leading items published in the TRANSACTIONS during 1948:—

Issue	Title	Author
January	The Limitations of Model Experiments and Possible Future Research	F. H. Todd, B.Sc., Ph.D.
January	Symposium on "The Engining of Cargo Vessels of High Power"	Various authors

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February	The Burning of Boiler Fuel in Diesel Engines	John Lamb, O.B.E. (Member)	3rd Feb. (Tues..)	(South-West Essex Technical College and School of Art). "The Use of Electricity at Sea", by C. P. Harrison (Member).
March	Sea Water Contamination of Boiler Fuel Oil and Its Effects	Eng'r Rear Admiral C. J. Gray, D.S.O., R.N.(ret.), and Wycliffe Killner, R.N.S.S.	9th Feb. (Mon.)	(L.C.C. School of Engineering and Navigation, Poplar). "The Combustion Turbine", by J. Calderwood, M.Sc., (Member of Council).
April	Longitudinal Vibration of Marine Propeller Shafting	C. P. Rigby, B.Sc., A.M.I.Mech.E.	18th Feb. (Wed.)	(Merchant Venturers' Technical College, Bristol). "The Combustion Turbine", by J. Calderwood, M.Sc. (Member of Council).
May	Developments in Marine Reduction Gearing	W. A. Tuplin, D.Sc., M.I.Mech.E.	26th Feb. (Thurs.)	(Municipal Technical College, Liverpool). "Marine Lubricants and Lubricating Practice", by G. M. McGavin and H. J. Nicholson (Member).
June	The Radiography of Welds	R. F. Bishop, M.A.		
July	Some Aspects of the Manufacture of Large Seamless Steel Tubes and Hollow Forgings	J. W. R. Naden, F.I.M.	15th March (Mon.)	(Acton Technical College). "The Combustion Turbine", by J. Calderwood, M.Sc. (Member of Council).
	Training of Apprentices Intending to Become Marine Engineers		26th Oct. (Tues.)	(Dartford Technical Institute). "Air Conditioning", by J. K. W. MacVicar (Associate).
August	An Introduction to the Vortex Theory of Propellers	K. H. W. Thomas, R.C.N.C.	1st Nov. (Mon.)	(South East London Technical Institute). "The Combustion Turbine", by J. Calderwood, M.Sc. (Member).
September	Examinations in Secondary Schools		19th Nov. (Fri.)	(Sir John Cass Institute). "Photo Elasticity", by J. Ward, Ph.D., B.Sc. (Member).
October	Presidential Address—The War Effort of Vickers-Armstrongs	Com'r Sir Robert Micklem, C.B.E., R.N.(ret)	25th Nov. (Thurs.)	(South East Essex Technical Institute). Film on "Precision Measurement".
November	Notes on the Behaviour of H.M. Ships during the War	N. G. Holt, C.B.E., R.C.N.C. and Capt. (E) F. E. Clementson, R.N.	3rd Dec. (Fri.)	(West Hartlepool Technical College). "The Combustion Turbine", by Dr. A. T. Bowden, B.Sc. (Member).
December	The Heat Pump with Some Notes on Its Application to Air Conditioning in Land and Marine Service	F. Joder	7th Dec. (Tues.)	(Paddington Technical Institute). "The Use of Electricity at Sea", by C. P. Harrison (Member).
			16th Dec. (Thurs.)	(Hull Municipal Technical College). "Diesel Engined Trawlers", by A. C. Hardy, B.Sc. (Associate Member of Council).

Members are reminded of the arrangements by which their copies of the TRANSACTIONS may be returned for binding at the end of each session, or an additional bound volume may be supplied annually to a standing order.

OTHER INSTITUTE PUBLICATIONS

The three books—"The Running and Maintenance of Marine Machinery", "Electricity Applied to Marine Engineering" by W. Laws, and "Naval Architecture and Ship Construction" by R. S. Hogg continue in steady demand. An unfortunate loss by the printers of their stock of the last-named book, due to a fire on their premises, has necessitated an urgent reprinting, and copies are again available.

EDUCATION GROUP

The Eighth Annual Meeting of the Education Group was held on the 28th May 1948, when Messrs J. Calderwood and T. W. Longmuir were elected Chairman and Vice-Chairman respectively of the Group and of the Executive Committee for the following year. At this meeting a discussion was introduced by Mr. F. H. Reid, B.Sc., Wh.Ex., on "Examinations in Secondary Schools". The Group also met on the 26th November 1948, when a discussion was introduced by Mr. George Thompson, M.Eng. on "Qualifications of Professional Engineering Institutions".

With the approval of the Council, the Executive Committee is engaged in revising the Associate Membership Examination syllabus.

The following lectures were arranged by the Education Group Executive Committee with the assistance of Mr. E. W. Cranston, Chairman of the Junior Section Committee:—

22nd Jan. (Thurs.)	(Wandswoth Technical Institute). "Modern Power Station Plant", by S. B. Jackson (Member).
28th Jan. (Wed.)	(College of Technology, Belfast). "Gas Turbines", by C. C. Pounder (Vice-President).

JUNIOR SECTION

The following visits were arranged by courtesy of the authorities concerned:—

26th Feb.	Battersea Power Station.
4th March	Barking Power Station.
11th May	Marine Instruments, Ltd., Barking.
17th June	The Refineries of the "Shell" Refining and Marketing Co., Shellhaven.
12th Nov.	De Havilland Works, Stag Lane, Hendon.
27th Nov.	The National Physical Laboratories, Teddington.

Three dances were held during the year, on the 21st February, 23rd October and 11th December. The latter was a carnival dance and was exceptionally well attended.

LIBRARY

The Library service has been in constant demand with regard to supplying both books and technical information. New books are still being received and the problem of their housing is now extremely acute. The number of volumes now in the library has also made the existing system of classification inadequate and it is being considered whether the Library should be re-classified on the Universal Decimal Classification system to enable a very much more comprehensive service to be rendered to the members of the Institute. This would result in the necessitous weeding out of old books making the shelving problem somewhat less acute.

The Council take this opportunity to express their thanks to those who have contributed the book reviews published in the monthly Notices.

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

The Annual General Meeting of the Branch was held on

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the 1st October 1948. Sir John Thornycroft, who had rendered very valuable help to the Branch having expressed a desire to retire, Dr. Dorey had been invited and had accepted this invitation to become the new President of the Branch and was introduced to this meeting. He then delivered his Presidential Address (TRANSACTIONS 1948, Vol. 60, p. 217).

Several successful and well-attended meetings have been held during this year, the particulars of which are as follows:—

29th Oct. (University College, Southampton). "Maritime Problems of the Day", by A. C. Hardy, B.Sc.

24th Nov. (Portsmouth Municipal College). "Modern Methods for Computing the Surface Friction in Ships", by K. C. Barnaby, O.B.E., B.Sc.

17th Dec. (Temperance Institute, Southampton). "All-Welded Ship Construction", by K. V. Taylor, B.Sc.(Eng.), G.I.Mar.E.

INSTITUTE AWARDS

The Denny Gold Medal. The award of this medal has been withheld on this occasion.

The Institute Silver Medal for the best paper contributed by a non-member during 1948 has been awarded to C. P. Rigby, B.Sc. for his paper "Longitudinal Vibration of Marine Propeller Shafting".

The Junior Silver Medal and Premium. No paper was contributed by a junior member during 1948.

The W. W. Marriner Memorial Prize, value £5, for the best Engineering Knowledge scripts written by a candidate in the Ministry of Transport's 1948 examinations for the Second Class Engineer's Certificate of Competency has been awarded, on the recommendation of the Ministry's Chief Examiner of Engineers, to G. V. McCullough.

Extra First Class Engineer's Certificate Examination.—Institute Award. The Institute's medal for the candidate obtaining the highest marks in this examination in 1948 has been awarded to S. G. Christensen (Associate Member).

Essay Competition Awards. The full award of £20 from the combined Jacobs, Murdoch and Robertson Award Funds has been granted to Henry Nicol (Graduate) for his essay entitled "The Heart of a Tanker".

An award of £7 10s. from the Adam Girdwood Award Fund has been granted to K. V. Taylor, B.Sc. (Graduate) for his essay entitled "Some Considerations in the Choice of Main Machinery for Warships".

No entries were received for awards from the combined Denny, Stephen and Inverforth Award Funds.

INSTITUTE PRIZES FOR STUDENTS OF TECHNICAL COLLEGES IN MARINE CENTRES

The Institute's Annual Prizes, value £2 2s. each, for students at technical colleges and schools in marine centres who accomplished the best year's work in Heat Engines, were awarded as follows:—

Alan Robert Berrett, University College, Southampton.
Ivan Carver, Portsmouth Municipal College.
John Edward Clifford, Cardiff Technical College.
Ivan F. W. Graham, Leigh Technical College.
James Hampton, Greenock Technical College.
Henry Hawkins, City of Liverpool Technical College.
William Carr Hewitson, Marine School of South Shields.
Allan James, Gateshead Technical College.
David Stewart Kydd, Dundee Technical College.
Kenneth George Page, South East London Technical College.
Gordon Scott, Kingston-upon-Hull Municipal Technical College.
John Dennis Parson, The Woolwich Polytechnic.
Peter Scribens, West Ham Municipal College.
Alexander John Smith, Robert Gordon's Technical College, Aberdeen.
Noel Douglas Taylor, The Royal Technical College, Glasgow.
Louis Edwin Wastell, Swansea Technical College.

Joseph Henry Blackburn, Rutherford College of Technology, Newcastle-on-Tyne.

Donald Mudd, West Hartlepool Technical College.

Walter Andrew Northmore, Plymouth and Devonport Technical College.

Frederick F. R. Phillips, Falmouth Technical Institute.

Philip George Whalley, Birkenhead Technical College.

William John Hanlon, Belfast College of Technology.

Stanley Victor Sears, South West Essex Technical College.

George William Skinn, Constantine Technical College, Middlesbrough.

THAMES NAUTICAL TRAINING COLLEGE, H.M.S. WORCESTER

The Institute's annual prize, value £2 2s., for excellence in marine engineering, was won by P. W. G. Everett.

LLOYD'S REGISTER SCHOLARSHIP

This scholarship, value £175 per year for three years, was awarded to K. G. McColl, a student of the Gamble Institute, St. Helens and an apprentice fitter with Messrs. Cammell Laird and Co., Ltd. He started a three year course at Liverpool University in September.

INSTITUTE EXAMINATIONS

Associate Membership Examination. Twelve candidates entered for the examination. S. G. Christensen passed in all subjects. J. H. Hoare passed in five subjects; D. Nailer and B. K. Maitra in three subjects; F. Walker in two subjects; and R. H. Row in one subject. The last-named five candidates held exemptions from the remaining subjects.

Common Preliminary Examination (for Studentship). I. C. Howarth completed the requirements for Studentship in the April examination by passing in Mathematics; R. C. Crouch sat and passed the October examination, and N. Dienes completed the requirements by passing in Mathematics. The other Students elected during the year were admitted without examination on possessing the necessary exempting qualifications.

National Certificates in Mechanical Engineering with Special Reference to Marine Engineering. During the year 654 Ordinary Certificates, 199 Higher Certificates, 25 Ordinary Diplomas, 18 Higher Diplomas, 16 Supplementary Ordinary Certificates and 6 Supplementary Higher Certificates were endorsed for Marine Engineering by the President.

REMEMBRANCE DAY, 1948

Mr. R. K. Craig, Chairman of Council, represented the Institute at the Remembrance Day Service at Westminster Abbey on Sunday, 7th November 1948, and Mr. A. Logan, Vice-Chairman of Council, attended the ceremony and laid the Institute's wreath at the Mercantile Marine War Memorial, Tower Hill.

PREMISES

The necessary negotiations with the Ministry of Works and the War Damage Commission having been concluded, the outstanding major repairs and renovations have been put in hand and should be finished by the date of the Annual Meeting.

STAFF

The Council have confirmed the appointment of Mr. J. Stuart Robinson, M.A. as Assistant Secretary, after a period of satisfactory probation.

STAFF PENSIONS

On the recommendation of the Finance Committee Miss K. B. Holman, Miss K. Mansbridge and J. Willis have been included in the Staff Pension Scheme and endowment assurance policies have been taken out on their behalf.

LOCAL SECTIONS

As recorded in the TRANSACTIONS, the newly formed Local Sections at Cardiff and Swansea have held very successful inaugural meetings and are now carrying out programmes of meetings on lines approved by the Council.

A similar development has occurred at Sydney, Australia,

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where an enthusiastic meeting of local members on December 13th inaugurated the formation of a Local Section. At a subsequent dinner on January 18th 1949 Sir Robert Micklem, the President of the Institute, was present and conveyed the Council's greetings and good wishes for the success of this important Section.

CO-OPERATION WITH THE INSTITUTION OF NAVAL ARCHITECTS

The Joint Committee held three meetings during the year, at which matters of mutual interest were discussed. Joint meetings of the two societies were arranged, as recorded on page 2.

A dinner of the two Councils was held at the Park Lane Hotel on December 2nd. The attendance and proceedings at this very enjoyable function augured well for the intended annual repetition of this event.

SOCIAL EVENTS

The Twelfth Annual Golf Competition was held at Shirley Park Golf Club on Friday, 4th June 1948, when the Institute Cup was won by Mr. J. S. Clayton Marshall.

The Autumn Golf Meeting was held at Hadley Wood Golf Club on Friday, 15th October 1948.

The Annual Dinner was held at the Connaught Rooms on Friday, 12th March 1948.

The Annual Conversazione was held at the Connaught Rooms on Friday, 3rd December 1948.

R. K. CRAIG (*Chairman of Council*).

B. C. CURLING (*Secretary*).

REPRESENTATIVES' REPORTS

The following are brief reports on the work carried out during the past year by some of the outside committees and organizations on which the Institute is represented.

The Engineering Joint Examination Board. Representatives:

F. H. Reid, B.Sc. and R. F. Thompson, B.Sc.

The annual meeting of the Board was held on Friday, 11th June 1948, when the annual report for 1947-8 and the statement of accounts were adopted.

The reports and recommendations from the Committee of Moderators dated 21st November 1947 and 21st May 1948 were considered and adopted.

A special sub-committee was appointed in June 1947 to consider the advisability of an increase in examination fees to be paid by candidates, the apportionment of expenses to be paid by constituent institutions, and whether sponsored institutions should make any special contribution to the funds of the Board. The recommendations of this sub-committee were subsequently approved and adopted.

Dr. Chapman was elected Chairman of the Board in succession to Engineer Rear-Admiral W. M. Whyman.

The members of the Committee of Moderators were re-elected and the Auditors re-appointed for 1948-49.

It was agreed that the examinations for 1949 be held from 5th to 8th April and 4th to 7th October.

The meeting closed with a discussion on the Report of the Secondary School Examinations Council after Sir Martin Roseveare had given details of the scheme.

The results of the examinations were as follows:—

October 1947	Sat	Passed	Referred	Failed
Whole examination	68	24	19	25
One or two subjects	100	57	12	31
April 1948	Sat	Passed	Referred	Failed
Whole examination	122	45	30	47
One or two subjects	151	81	15	55

For the October 1948 examination 198 candidates sat at 9 centres in this country and 94 entered at 15 centres overseas.

The total number of exemption certificates received from the constituent institutions were:—

	During 1947/8	Total since June 1941
Institution of Civil Engineers ...	846	4,127
Institution of Mechanical Engineers	—	2,720
Institute of Marine Engineers ...	11	142
Royal Aeronautical Society ...	—	352
Institution of Naval Architects ...	—	3
Institution of Municipal Engineers	—	94
Institute of Structural Engineers...	30	136
Institution of Mining Engineers ...	—	1
	887	7,575

Since the first examinations in April 1941, up to April 1948, there have been 1,770 candidates for the April examinations and 1,508 candidates for the October examinations, i.e., a total of 3,278 candidates.

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

To meet a growing demand for British data on the properties of steels for use at high temperatures, the Committee has agreed to offer to the Institution of Mechanical Engineers for publication Report J/T 138 "The Behaviour of a Nominally Isotropic 0.17% Carbon Case Steel under Complex Stress Systems at Elevated Temperatures", by A. E. Johnson. It was also agreed to issue to members Report J/T 137 with the same heading as J/T 138 and its supplement, "Effect of High Initial Plastic Strain on Subsequent Creep" and to offer it to "Engineering" for publication.

The National Physical Laboratory offered its service to the Committee in preparing a résumé of the work carried out during 1930-1948 in investigations on the variation in creep rate of carbon steels, including related work on grain size design stresses, and a summary of the information contained in the report on "The Relationship of Composition, Heat-Treatment, Grain Size and Microstructure to the Creep Strength of Carbon Steels". The Committee favoured the idea of a résumé, which would meet the expressed demands of the Iron and Steel Institute. Two papers by A. E. Johnson on the relaxation of carbon and chrome-molybdenum-steels at elevated temperatures were submitted to the Committee. Report J/T 144 describes the work undertaken to investigate the behaviour of a chrome-molybdenum cast steel under conditions of stress relaxation at temperatures from 455 to 525 deg. C., and shows how this behaviour is related to the creep properties of the material at these temperatures. Report J/T 145 describes similar work done on two low carbon steels.

In the cases covered by the two reports a general equation representing relaxation time-stress relations was arrived at. However, no evidence was obtained that the stress-time equation of a relaxation curve can be obtained directly from the creep rate-stress-time or plastic strain relations derived in ordinary creep tests. Neither time hardening nor strain hardening theories represent the experimental results.

The Committee agreed to offer the two reports for publication in "Engineering".

Some work has been carried out by the National Physical Laboratory in investigating the influence of various heat treatments on the properties of two carbon steels after various stages of reduction from the billet. The results of creep tests on the normalized tube materials were not in agreement with those of the tests carried out by the steel makers on 1-in. forged bar normalized. No improvements in creep properties were produced by various heat treatments, although a variation of the grain size from one end to the other was found in the pilgered tube material, the alteration of the creep characteristics was not appreciable.

The steels did not show much variation in microstructure after the various tubing processes and heat treatments. There was, however, a wide variation in creep properties of the steels

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in the "as received" conditions, but not in the subsequent heat-treated conditions, all of which produced poor creep strength.

Further work on other tube steels was suggested before the report is offered for publication.

The British Corporation Register of Shipping and Aircraft, Committee of Management and Mechanical Committee. Representative: W. F. Brown, O.B.E., B.Sc., Wh.Ex.

One of the most important tasks undertaken by the Committee concerned the International Conference on Safety of Life at Sea, in preparation for which a close examination was made of all matters affecting classification interests that were likely to arise. The extent of these interests may be gauged by the fact that, on this occasion, the British Classification Societies were directly represented at the Conference and thus took an active share in its deliberations.

In the main, however, the year has been one of study and review. The effect of prolonged service upon wartime expedients and innovations has been closely watched; with the passage of time, certain defects have come to light and means have been devised to overcome them. On the other hand, there is evidence from service records that many "substitutes" have proved themselves and are likely to become established practice.

Problems to which special attention has been devoted include explosions in the crankcases of internal combustion engines, torsional vibration in shafts, corrosion of steel boiler tubes, the use of aluminium alloys for superstructures, casings, etc. and for electrical fittings, excessive straining on hull structures due to abnormal distribution of cargo, and the effect of vibration upon the ship as a whole and upon its component parts.

In addition, the Committee have kept in close touch with investigation and development work being carried out elsewhere in matters affecting materials and methods of construction, both for ships and for their machinery and equipment, through its representatives serving on the various organisations concerned.

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

In April 1944, when the Association was incorporated it was estimated that it would take five years properly to establish its activities. Next March will see the completion of this initial period and it is considered that by then the Association will be well established as an essential part of the industry's activities.

During the present year considerable progress has been made with a number of items on the Research Programme. As has previously been reported, work on the natural circulation in water-tube boilers is being carried out for the Association at the Royal Technical College, Glasgow, and arrangements have been made to build a full scale single tube experimental boiler suitable for pressures up to 1,500lb./sq. in. This boiler will also be used for investigating heat transfer effects in tube banks.

Another item of interest to marine engineers is the ventilation of machinery spaces. Wet and dry bulb temperature measurements have been taken on twenty-five ships, thus completing a survey of environmental conditions in typical machinery spaces. A report on this work is being circulated to the industry. A member of the Association's staff is at present engaged, on a trip to Australia, in making investigations into the ventilation of passenger and crew accommodation.

During the year the Association's staff have been investigating the strength and stiffness of engine seatings. Strain measurements have been taken on the s.s. *Ocean Vulcan* and a report will be issued shortly.

On the ships' structures side a new machine is being constructed at Glengarnock for testing full scale structural specimens under combined axial and lateral loads. It is hoped that this machine will be completed in about eighteen months.

The Intelligence Section has continued to issue the monthly Journal of Abstracts and increasing use is being made of the Association's Library. The co-operation of the shipping indus-

try in the work of the Association is a most satisfactory feature and one without which it would be impossible to make really useful progress. The ship on trials and in service represents the best laboratory for the Association's work to improve ships and machinery design and performance.

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

A meeting was held on 7th April 1948 and amongst the items dealt with were the revision of Rules for Electric Equipment and Rules for Electric Propelling Machinery; certain modifications to Rules for Reduction Gearing intended for Main Propelling Machinery and Auxiliary Electrical Generating Machinery, also Rules in regard to the quality and testing of materials. A further meeting was held on 7th October 1948 when various proposed modifications and additions to the Rules were agreed. A special committee was appointed in connexion with the revision of the rules for ships carrying petroleum in bulk.

British Standards Institution's Committees
Sub-Committee MEE/103/4—Internal Combustion Engines for Marine Purposes of Technical Committee MEE/103—Prime Movers for Electrical Plant. Representative: A. Logan.

Sub-Committee MEE/103/4 was formed for the purposes of proposing any amendments to B.S. 649 to cover internal combustion engines for marine purposes.

B.S. 649 had originally been drawn up as one of a series of specifications dealing with prime movers for electrical purposes and the original temperature condition for the rating of the engine had been 62 deg. F. This had subsequently been increased to 85 deg. F. and although the Institute of Electrical Engineers had suggested that the rating temperature should be increased to 113 deg. F. It was suggested that, as a basis for discussion B.S. 649 should remain substantially in its present form, but that section IV now dealing with the selection of engines for use with electrical generators, should be extended so that it would deal with the selection of engines for use for marine propulsion, marine auxiliaries and other purposes.

After due discussion it was agreed at the meeting held on the 9th December 1948 that sub-paragraph (d) should be added to Clause 4. Sub-paragraph (d) to read as follows:—

(d) For continuous day and night running for more than 24 hours the maximum continuous output of the engine shall not exceed 90 per cent of the modified output.

Note the "modified" output is the rated output after deductions have been made for altitude, temperature and combined temperature and humidity.

MEE/21 Air Receivers. Representative: J. Carnaghan.
MEE/21/3. B.S. 487. Fusion welded steel air receivers.

This standard has been extensively revised and will be submitted to the Mechanical Engineering Industry Standards Committee for approval. Provision has been made for heat treatment and for weld testing, with resultant reductions in permissible thickness of cylindrical shells when these methods are employed. The Standard now covers six grades of construction, i.e., A to F inclusive.

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

The Main Committee arranged for sub-committees to revise and bring, so far as practicable, the various land boiler standards into line with each other.

They also convened sub-committees to consider the Draft Standards for the Indian Boiler Rules and the Draft Australian Standard Rules for the design, construction and inspection of welded boilers and unfired pressure vessels and their appurtenances. Their comments and recommendations on these Draft Standards were duly collated and sent to the authorities concerned.

MEE/34/1 Land Boilers. Representative: J. Carnaghan. B.S. 537:1934 Lancashire and Cornish Boilers. This standard has been considerably revised and has been circulated for comment.

B.S. 609:1935 Multitubular horizontal boilers,
B.S. 665:1936 Vertical cross tube boilers, and
B.S. 761:1937 Cylindrical vertical multitubular boilers
have like B.S. 537 been revised and circulated for comment.

MEE/34/1 Water Tube Boilers. Representative: J. Carnaghan. B.S. 1113:1943 Water Tube Boilers and their integral superheaters. This standard has been considerably revised. The tables of permissible nominal stresses for use in calculating the minimum thicknesses of drum shells and heaters have been revised and the section relating to dished partial spherical, semi-ellipsoidal or hemispherical unstayed drum ends with pressure on the concave side has been simplified. Provision has been made for the use of half per cent molybdenum steel tubes and for one per cent chromium half per cent molybdenum steel tubes.

The revised standard will shortly be circulated for comment.

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

J. Carnaghan.

B.S. 759:1937 Valves, gauges and similar fittings for land boiler installations have been revised and will be submitted to the Mechanical Engineering Industry Standards Committee for approval.

B.S. 1123:1943 Valves, gauges and other safety fittings for air receivers and compressed air installations has been revised and is being prepared for submission to the Mechanical Engineering Industry Standards Committee for approval.

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

B.S. 806:1942 Ferrrous pipes and piping installations for and in connexion with land boilers. This Committee has been reconstituted with a view to revision of this Standard. A panel has been appointed to review the proposals and written comments already received, also to forward their recommendations as to stress levels and temperatures.

B.S. 1306, Part 2:1948 Seamless copper tubes for steam services. This Standard co-ordinates, as far as possible, the requirements of the various British Standards adjunct to Part 1:1946, Non-ferrrous pipes and piping installations for and in connexion with land boilers.

MEE/11/4 Marine flanges. Representative: J. Carnaghan.

B.S. 3022:1924. No further action has been taken in connexion with this standard, but B.S. 10:Part 1:1947 Pipe flanges for land use for pressures up to 400ft. head has been revised.

14th March 1949

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 1948, and we set out below our observations.

(1) The Revenue Account shows a surplus of £478 16s. 3d. as compared with £584 1s. 4d. last year, a decrease of £105 5s. 1d.

TABLE A

	1939		1940		1941		1942		1943		1944		1945		1946		1947		1948	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Receipts from Subscriptions	5,380	4 10	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
Entrance Fees	328	15 0	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
Advertisements	1,569	6 6	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
Total Income	8,070	14 7	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
General Ex. A/c.	2,948	8 0	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
Rent, Rates and Taxes ...	565	17 1	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
House A/c.	607	10 3	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
Repairs and Redecorations ...	4	12 8	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
Transactions	3,159	0 3	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
Sundry Creditors	567	17 2	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
Capital A/c.	30,178	10 4	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
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 0
Balance on Revenue A/c. ...	515	13 2	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 3

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(2) The Gross Revenue was £17,453 19s. 3d., an increase of £3,759 1s. 7d. made up as follows:—

	Decrease	Increase
	£ s. d.	£ s. d.
Subscriptions	—	2,763 2 2
Entrance Fees	—	102 17 5
Examination Fees	—	5 17 0
Advertisements	—	873 2 3
Interest	—	15 9 9
Hire of Hall and Library	1 7 0	—
	1 7 0	3,760 8 7
Deduct: Decrease as above	—	1 7 0
Increase as above	—	£3,759 1 7

(3) Expenditure charged to Revenue Account amounted to £16,975 3s. 0d., an increase of £3,864 6s. 8d., made up as follows:—

	Decrease	Increase
	£ s. d.	£ s. d.
General Expenses	—	852 0 10
Rent, Rates, etc.	—	36 1 1
House Account	34 8 3	—
Repairs	—	505 3 10
Insurance	—	13 4 8
Transactions	—	1,409 8 0
Transactions (Bound Volumes)	8 18 11	—
Library and Reading Room Account	—	60 14 5
Depreciation	—	26 17 0
Prizes	—	4 4 0
Reserve for Renewal of Premises	—	1,000 0 0
	43 7 2	3,907 13 10
Deduct: Decreases	—	43 7 2
Increase as above	—	£3,864 6 8

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

	£ s. d.
Increase in Expenditure	3,864 6 8
Less: Increase in Income	3,759 1 7
Decrease in Revenue	£105 5 1

(5) Sales of Handbooks

The following profits have been made during the year:—

	£ s. d.
“The Running and Maintenance of Marine Machinery”	259 7 5
“Electricity Applied to Marine Engineering”	86 14 7
“Naval Architecture and Ship Construction”	36 17 6

(6) Investments

The market value at 31st December 1948, of the Institute's free investments standing in the books at £29,928 9s. 8d. was £30,694.

During the year, the holding of £6,000 Guaranteed 3% Stock (Irish Land Acts 1903 and 1909) was sold at a loss of £128 4s. 7d., £5,917 14s. 6d. of the proceeds being invested in £6,000 British Transport 3% Guaranteed Stock 1978/88. A further £1,007 16s. 0d. of the Institute's funds has been invested in £1,000 3% Savings Bonds 1965/75.

(7) Marine Engineers National War Memorial Building Fund

The fund now amounts to £56,420 2s. 1d., an increase of £5,924 9s. 3d., made up as follows:—

	£ s. d.
Donations	4,700 10 8
Investment Income	1,299 4 2
	£5,999 14 10
Less: Loss on sale of Guaranteed 3% Stock (Irish Land Acts 1903 and 1909)	75 5 7
Increase as above	£5,924 9 3

£52,591 0s. 3d. of the fund is invested in Government Securities as detailed in the separate account, having a market value at the 31st December 1948, of £52,487 10s. 0d.

(8) 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.

Annual Dinner

The Sixtieth Anniversary Dinner of the Institute was held at the Connaught Rooms, London, on Friday, 11th March 1949 and was attended by seven hundred members and guests.

Sir Amos L. Ayre, K.B.E., D.Sc., the immediate Past-President of the Institute occupied the Chair.

The guest of honour was H.R.H. The Duke of Edinburgh, K.G.

The other guests present included: Vicomte A. O. de Thieusies (Belgian Ambassador), Dr. Cheng Tien-hsi (Chinese Ambassador), The Hon. J. C. Holmes (American Minister), The Rt. Hon. Earl Howe, C.B.E., P.C. (Past-President, Institute of Marine Engineers), The Rt. Hon. Viscount Bruce of Melbourne, P.C., C.H., M.C., Admiral of the Fleet Viscount Cunningham of Hyndhope, K.T., G.C.B., O.M., D.S.O., LL.D. (President, Institution of Naval Architects), The Rt. Hon. Lord Rotherwick (President-designate, Institute of Marine Engineers), Air Chief Marshal Sir Frederick Bowhill, G.B.E., K.C.B., C.M.G., D.S.O. (Master of the Honourable Company of Master Mariners), Vice-Admiral Sir Cecil H. J. Harcourt, K.C.B., C.B.E. (Second Sea Lord), Sir Gilmour Jenkins, K.B.E., C.B., M.C. (Permanent Secretary, Ministry of Transport), Major-General W. Brooke Purdon, D.S.O., O.B.E., M.C. (Acting Agent for Northern Ireland), Vice-Admiral(E) Sir D. C. Ford, K.C.B., C.B.E. (Engineer-in-Chief of the Fleet), Sir W. Nicholas Cayzer, Bt., Sir Stanley Angwin, K.B.E., D.S.O., M.C., T.D., Sir Charles Lillicrap, K.C.B., M.B.E. (Director of Naval Construction), Sir E. Julian Foley, C.B. (Past-President, Institute of Marine Engineers), Sir Jonathan Davidson, C.M.G., M.Sc. (President, Institution of Civil Engineers), Sir William Fraser, C.B.E., Sir Edward Wilshaw, K.C.M.G., J.P., Sir Frederick C. Stewart, Kt., D.L., J.P., LL.D., Sir Ronald Garrett, Kt., Lieut. Michael Parker, R.N. (Equerry in Waiting to H.R.H. The Duke of Edinburgh), The Hon. W. Leslie Runciman, Colin S. Anderson (President, The Chamber of Shipping), Vice-Admiral Cedric S. Holland, C.B. (Chairman, King George's Fund for Sailors), Capt.(E) W. Gregson, R.N.R., M.Sc. (President, Institution of Mechanical Engineers), Gilbert J. Innes, James Morton, Frank Charlton, John W. Barron, J. Harrison, H. O. Kohl, Capt. R. R. Kippen, Mr. Harvey Klemmer (Merchant Shipping Attaché, American Embassy), W. G. Liley (President, Society of Consulting Marine Engineers and Ship Surveyors), Mungo Campbell, C.B.E., M.A. (President, North East Coast Institution of Engineers and Shipbuilders), Com'r V. B. Cole, U.S.N. (Assistant Attaché, American Embassy), Capt.(S) A. D. Duckworth, R.N.(ret), Secretary, Institution of Naval Architects, Lt. Com'r(E) R. J. MacKeown, B.Sc., R.C.N., Com'r R. E. Harding, V.R.D., R.N.Z.N., Com'r B. A. Samson, R.I.N., Com'r J. C. Mansell, Pakistan Navy, Gilbert Findlay, C. H. Gray, Victor Wilkins, F.R.I.B.A., J. D. C. Stone, F.C.A., R. A. Rogers, LL.B.

The Loyal Toast having been honoured, the CHAIRMAN said:—I have just received a telegram from your President, Sir Robert Micklem, who is in the good ship *Orontes* somewhere in the Mediterranean. He states:—

"With humble duty to your distinguished Guest please express my apologies for absence and accept best wishes for a successful evening."

(*Applause*).

The CHAIRMAN: Your Royal Highness, may I say at the

outset of our proceedings how honoured the members of the Institute feel that you should graciously have given us your company this evening, and how very great is the pleasure which it affords us. (*Applause*).

We know that your heart is in the sea and in ships, and we assure you that in this assembly tonight, you are amongst people who have these same feelings. As salt water people we have been interested in your professional career, and we trust that this occasion may be the beginning of a long friendship between your Royal Highness and the Institute. (*Applause*).

H.R.H. THE DUKE OF EDINBURGH, K.G.:—I just want to thank you for your very kind words of welcome this evening. I do not wish to hold up the rest of the business this evening in any way, but I should like to say how delighted I am to be here, and I, too, hope that this is really the budding of a long friendship with the Marine Engineers—not that I have not been friendly to Marine Engineers. (*Laughter*).

Thank you once again for your very kind welcome and for your hospitality. (*Prolonged applause*).

In proposing the toast "The Royal and Merchant Navies of the British Commonwealth", the Rt. Hon. Viscount Bruce of Melbourne, P.C., C.H., M.C., said: The toast which I have the honour to propose is that of

"THE ROYAL AND MERCHANT NAVIES OF THE BRITISH COMMONWEALTH".

I do not know whether the absence of the President has led to the somewhat unfortunate selection of myself for this honour. I think you could not have made a worse selection, but I will do my best. I will try later to make a few graceful and appropriate references to the Royal Navy and the Merchant Navy—and when I do you can attribute them to my generous and forgiving nature—but first I want to get some grievances off my chest.

Looking back into the somewhat murky past which I enjoyed as a politician, I have considerable difficulty in thinking of anything I detested more than the Royal Navy and Merchant Marine.

I will first refer to the Merchant Navy. During my career in Parliament and right up to the date when I was made a Minister of the Crown I contributed nothing, save on one occasion. That was when the Commonwealth of Australia Shipping Line was under discussion. In what I thought was a brilliant speech I said the only thing to do with it was to sell it, and pointed out that the rake-off would be about £8 million. The speech apparently was not nearly so good as I thought, as it did not get one supporter! Three years later I became Prime Minister and this wretched shipping line was wished on me. I had to take it on and do my best with it. That best, however, could not prevent a steady loss each year, and when eventually the Line was sold it was at a loss of about £8 million. The whole affair was a nightmare to me.

I am all in favour of those men who go down to the sea in ships, but I should be exaggerating if I said I liked the gentlemen on shore who stir up trouble as heads of the Unions.

We had trouble with two of these gentlemen Walsh and Johanssen and I considered the only thing to do with them was to throw them out of the country. Having decided on this course of action I appealed to the State Government for police assistance—the Commonwealth Government having no control over the Police—but the State Government would do nothing

about it. I therefore swore in 5,000 special constables and we grabbed the gentlemen at about 5 o'clock in the morning—a good step to take to avoid civil commotion! As the prisons in Australia are also state institutions, having grabbed them the next problem was what to do with them. We overcame the difficulty by putting them on Garden Island, which is inhabited by naval ratings, with the idea of shipping them off to Singapore with a Chinese crew, so that there would be no more trouble. The night we meant to carry out this plan I was served with a writ from the High Court, as when the matter was heard by the High Court they decided that I did not have the power of deportation. I admit I had a slight struggle with my conscience but as I was conducting a campaign for obedience to the law what could I do? However, all ended well for although we had to let them both loose again they lived together on Garden Island for so long that they got to hate the sight of each other and one of them came over on to our side.

Now as regards the Navy. When I was Prime Minister the financial arrangements for the Army, the Navy and the Air Force were not of the simplest kind. I only had limited resources at my disposal and all three Services wanted money. Invariably the Navy won but I showed what I thought when on one occasion the Navy really roused me and I told them they had forgotten more about wangling than the other two Services had ever known!

To make a speech about the Navy and the Mercantile Marine is a difficult task. We all realize the terrific debt we owe to them both but in making such a speech one is apt to become platitudinous, possibly fulsome and unquestionably boring. It is desirable, however, that we should sometimes remember what we owe to these two great Services. After all, the British Empire—although it is not apparently popular—has always rendered a great service to civilization, by its advancement of human well being throughout the world.

This has been made possible by the British Navy, which maintained the peace for one hundred years. That one hundred years saw the greatest advancement of human welfare the world has ever known. Side by side with them the Merchant adventurers and the Merchant Navy played their part, going to all the corners of the earth.

Today the idea seems to be that the Nationalistic tendencies of the backward peoples in every corner of the world should be served and that they should conduct their own affairs, freed from all direction and guidance from outside. If the British Empire—or whatever succeeds it—abdicates in favour of the extremists who represent this Nationalistic idea, it will be a hideous mistake. I offer no apologies for the part the British Empire has played. We are entitled to be proud of it. It has rendered an incalculable service to the world and I hope it will continue to play its part.

At times the world has been assailed by aggressors who would have swept everything before them and would have become masters of the world, but for the rock upon which they all have foundered—the rock of the British Navy. Consider the Armadas of Spain, think of Napoleon, of the days when the Kaiser saw himself as master of the world, and then consider Hitler and his ambitions. They are all broken by the British Navy. Some people today would say I am relatively right about the Spanish Armada and Napoleon, and that there might be a good deal in what I say about the Kaiser, but when Hitler came on the horizon things had changed and air power was an important factor. That is quite true, but I maintain that even in the last war the British Navy was the fundamental factor.

I will try to show why this was so. To begin with, the British Navy was the reason why these islands were never invaded. In 1940 it was only the incredibly stupid British people who did not realize they were beaten. The rest of the world saw us crumbling. If the British Navy had surrendered, what would have happened to the rest of the world? Hitler was master of Europe, and in control of the German, French and Italian Navies. At that time our great ally, the United States, had not achieved that amazing increase in naval strength

which subsequently made her the greatest naval power. Had we crumbled in 1940 the Atlantic would have been completely under the control of Germany. Germany could have crossed to South America, which was riddled with Fascism and Nazism. Japan would not have waited until the end of 1941 to strike for herself and the situation would have been incredibly different.

Think of Russia—and incidentally I wish Russia would occasionally admit that we did do something. Why was she able to put up her almost miraculous performance? It was largely because of the Arctic convoys—the convoys which tested the British and American Navies and Air Forces and, above all, tested to the last degree the British Mercantile Marine. They achieved the impossible and by so doing enabled the Russians to put up their incredible performance.

I have spoken of the slight altercations I have had with the Navy, but it once gave me the thrill of my life. During the 1914/18 war I was a junior and incompetent captain. Some five years or so after the war was over I was Prime Minister. The Navy had a great appreciation of the importance of this and I had the thrill of my life when an Admiral of the Fleet addressed me as "Sir".

In all seriousness I submit this toast. In drinking it we desire to pay homage to the Royal Navy and the Mercantile Marine and to express our confidence that in the future they will play their part as worthily as they have done in the past.

I give you the toast "THE ROYAL AND MERCHANT NAVIES OF THE BRITISH COMMONWEALTH".

VICE-ADMIRAL SIR CECIL H. J. HARCOURT, K.C.B., C.B.E., The Second Sea Lord, in responding to the toast, said: It is a great honour to reply to a toast to the Royal and Merchant Navies of The British Commonwealth, especially when it has been proposed in the way in which Lord Bruce proposed it. At the same time, it is also rather a task for a simple sailor to stand up and speak immediately following a great politician. Lord Bruce started off with a dig at the navy, and the only comeback I can make is to say that I am told that the day after the evacuation of the Dardanelles he went on board a destroyer and drank their last bottle of beer! (*Laughter*). Having said that I now want to pay a tribute to Lord Bruce—or should I say another tribute. (*Laughter*).

The Royal Navy and the Royal Australian Navy owe a great debt to Lord Bruce, and I should like to tell you why that is so. When the Australian Navy was first formed and was in the process of building itself up, the Commonwealth applied to the Admiralty to lend them officers to assist them in that great task. The Admiralty of the day did not quite appreciate what was involved, and did not take it quite seriously enough, and I am afraid that some of the officers who went out there were not quite up to the calibre of those who should have been sent. They did not do the Australian Navy much good and did not enhance the reputation of my own service. It was, however, Lord Bruce who, as High Commissioner, went to the Admiralty and pointed out the folly of that policy, and insisted that service in the Australian Navy by officers of the Royal Navy was to be considered as first-class service from the point of view of promotion and officers selected and appointed accordingly. That policy was carried out, and from that moment the co-operation between our two services never looked back. That was a great service which Lord Bruce rendered, and I should like to tell him tonight that in the formation of the new Royal Indian Navy and the Royal Pakistan Navy the lesson which he taught us then has not been forgotten, and orders have been given to the appointing authorities that service in those two navies is first-class service from the point of view of promotion and everything else. (*Applause*).

I was one of the officers who was fortunate enough to go to Australia and serve with them, and it was my great privilege shortly before the war to command the Australian destroyer flotilla. I was very proud of their record during the war, particularly those who served in the Mediterranean under Lord

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Cunningham; but, apart from that, I learned a great deal in the wider spheres. I learned a lot about the dominions and their point of view, and I am sure that officers who now go and serve with the navies of the new dominions will also gain the same advantage as that which I gained from my service with the Royal Australian Navy. (*Hear, hear*).

These Australians with whom I served and amongst whom I number some of my best friends, these fellows who live in the Antipodes where the noon day sun is in the north, where Christmas is in midsummer, where all the native animals are marsupial, and where the trees keep their leaves and shed their bark, are themselves sometimes a bit topsy-turvy. (*Laughter*). I remember on one occasion meeting a man who had come down from leave from Queensland, some 1,200 or 1,500 miles distant, and, furthermore, he had come on a bicycle! I asked him why on earth he had come on a bicycle, and his surprising answer was "To avoid the tiring train journey". (*Laughter*). About the same time I had the mayor of some small town call on me, and we started talking about modern inventions, coming round to the subject of wireless. I remarked that I had recently telephoned my wife in London by radio-telephone, and the mayor asked me how much it had cost. I told him that it was £1 a minute with a minimum of £3, and he informed me that he had a friend who would willingly give £20 to telephone his wife in London. I said "Why on earth doesn't he in that case?", and the reply I received was "Well, the trouble is she never gets far enough away for that". (*Laughter and applause*). That, gentlemen, is Australia!

I have spoken of the co-operation between my service and the navies of the dominions, and I feel that I should, at this stage, say a word about the co-operation which exists between our navies and the navies of our allies in other parts of the world. First of all, there is, of course, our great ally the United States Navy. (*Applause*). Many of us have wonderful memories of working with the American forces on the sea, on the land and in the air during the war. I am one of those who have been fortunate enough to work with the American Navy at sea since the war, and it has been a great pleasure, as it was during the war, which one greatly values. From there I would go to the Western Union which is, as you know, now being built up, and in which our services are working with the services of the other countries of the Western Union. From there it is not very far to the Scandinavian countries, and we have working with us in this country officers from all three Scandinavian countries under training. Then we go a little further afield into Greece and Turkey where we have naval missions and officers in this country under training. Then from there we go on to Egypt, Burma and China who are building up new navies and with all of whom we are working in close co-operation.

It throws quite a burden on us, for at the same time we have to build up our own navy, and I should like to say, especially in the presence of some of our very distinguished guests here tonight from foreign countries, that if we cannot meet all their demands, it is not that the spirit is unwilling, but it is purely physical limitations which prevent us doing any more.

I should like now to turn to the Merchant Service upon whose behalf it is a great honour to speak. In time of war the co-operation between the Royal Navy and the Merchant Navy goes on automatically, but in time of peace, although we work together as a team, it is not so easy to keep in touch with each other. We are doing our best. We teach our officers at the schools and staff colleges, and we do our best to keep in touch with ships at sea; but it is not too easy. There is one natural link which we have not managed to get going again since the war and that is that great service the Royal Naval Reserve. (*Hear, hear*). Ever since we have been a sea power not only have we needed the assistance of these very fine trained seamen, but many of them have expressed a desire to serve with the Royal Navy under the White Ensign in time of war, and there must always be that opportunity. We are doing all that we can to get the R.N.R. going again as soon as possible.

One cannot really talk about the Royal Navy and the

Merchant Navy without associating with them that great industry which builds and equips these ships. I think I can say without trespassing on the preserves of the American Minister who will propose the next toast, that when the sellers' market is over and the buyers' market comes along and there is difficulty in selling things, whatever happens, we must safeguard that great national asset the supply of skilled workmen in this great industry. (*Hear, hear*). It is of vital importance.

I should also like to say how very much we appreciate the interest which is taken by the great shipbuilding firms in their ships after they have left their yards to join the fleet. I know that from personal experience, and we, in turn, also like to keep in touch with the firms which have built our ships.

As I have the Institute of Marine Engineers at my mercy for a few more moments, I should like to say one thing from the point of view of the man who lives in the ship and who spent the greater part of the last war at sea with considerable periods operating in the Arctic Circle and in the tropics. It is that from the point of view of living in the ship in hot weather, it would be of the greatest value if we could get some way of getting those ships cooler! (*Laughter*). I see it rings a bell! It is not only the hot air of the tropics and the sun on those ships, especially on the flight decks of carriers, which makes them so hot, but it is the great amount of artificial heat which is generated or introduced in the ships. I remember going down the Suez in June one year in a cruiser, and they brought us 750 tons of oil which had been standing in the sun. It was so hot that it was only a few degrees off flash point! They put the oil in this cruiser, and it was just like switching on central heating in the middle of the summer! (*Laughter*). It was not until we got under way and steamed into what slight breeze there was that we managed to get the temperature down a little. It is that terrific heat which is introduced which makes it so hot, and if any great brain can produce a cooling apparatus which is small and powerful enough to be able to be fitted into His Majesty's ships, he will go down in history as one of the great benefactors of sailors!

I trust I can be more optimistic in that connexion than some fellows of mine who I sent down from Hong Kong to Australia to try and buy material from the Australian Disposal Boards for rehabilitating the Colony. They went in a Sunderland, but unfortunately one of the engines misbehaved and they got stranded at that outpost of Empire, Darwin, and could not get on. It was Christmas time and as a Christmas message they sent me a signal saying that they had Faith and Charity but little Hope! (*Laughter*). Well, I have complete confidence in the Faith, Hope and Charity of the Institute of Marine Engineers, and I should like to conclude by thanking you very much indeed for the way in which this toast has been received. (*Prolonged applause*).

THE HON. J. C. HOLMES, the American Minister, in proposing the toast

THE INSTITUTE OF MARINE ENGINEERS, said: At the outset let me thank you very sincerely for the honour you have done me in asking me to propose this toast. I was surprised when I received the invitation to do so, and I wondered why I should have been invited. Then I got to thinking about it, and I came to the conclusion that the reason I had been invited here this evening to propose the toast to the Institute of Marine Engineers was because of my professional qualifications. I have qualified as a marine engineer. (*Applause*). I have a witness here to prove it! (*Laughter*). Having told you that I have qualified as a marine engineer, I think it calls for a little explanation.

I came up the hard way and learnt to be a marine engineer in most difficult circumstances. It was in 1942 and I was a soldier wearing a soldier's suit; I was a landlubber, but I went to sea for a time. I went to sea in one of His Majesty's submarines and, as you might expect, the time arrived when we had to submerge. We had been submerged for a while when I had to go and do something. I could not get anybody else to do it for me, so I asked a young officer where I was to go,



THE SIXTIETH ANNIVERSARY DINNER AT THE CONNAUGHT ROOMS



H.R.H. THE DUKE OF EDINBURGH AND ADMIRAL OF THE FLEET VISCOUNT CUNNINGHAM



SIR AMOS AYRE AND MR. R. K. CRAIG RECEIVING GUESTS



THE DUKE CHATTING WITH MR. R. K. CRAIG AND MR. A. ROBERTSON (CENTRE)

THE DUKE OF EDINBURGH RECEIVED BY MR. A. LOGAN

Annual Dinner

and he directed me. I opened a door and crawled in—it was a small submarine of about 500 tons—and I was astonished at the array of machinery which greeted me; there were valves, spigots, and all manner of things. I looked at them but did not know what to do, and then I saw a plaque on the wall which gave instructions what to do. You closed Valve A, opened Valve B and did all kinds of things. Well, I did all that—or, at least, I thought I had, but somehow or other I failed to close one of the valves which should have been closed, and the result was that the whole pressure of the Mediterranean Sea came in and you know what happened! The infernal machine back-fired! (*Laughter and applause*).

Having explained my qualifications, I should like to say a word of appreciation from those in the United States, particularly of the Institute of Marine Engineers and of our Chairman. I want you to know that this distinguished service and great contribution to the whole shipping world is appreciated on our side of the Atlantic just the same as it is here. (*Applause*). Some expression of that regard, that respect for his personal qualifications, his professional attainments and the affection with which he is held in the United States was given not long ago when he was made a life member of the United States Society of Naval Architects and Marine Engineers. (*Applause*).

You marine engineers and people who deal with ships are rather a special kind of people, I think, and I have always been amazed—I do not know much about shipping—by the contradiction which arises in regard to the rivalry and competition between all shipping men in the United Kingdom and shipping men in the United States. Although that rivalry and competition exists, it does not seem to interfere in the slightest degree with good friendship. I think it is an expression of confidence, good judgment and downright intelligence when, in spite of competition and rivalry—because we sometimes think that you build a disproportionate number of ships, and the idea is expressed over here that we are a little ambitious in that respect too!—there is always this constant free exchange of techniques, ideas and people. Between them there is a mutual contribution to an improvement in this very vital part of our national and international life. I sometimes think that if we could extend that a little bit into some of the other relationships with the people who live a little way to the east of us, things might improve.

The building of ships is full of romance, but it has not been sung enough. I wonder whether you who spend your time working day in and day out producing ships ever stop to think just what the ship has been from the very beginning of time; how it has led in discovery and exploration, and how it has carried people backwards and forwards across the world, making a great contribution to our common well-being. The ship is a very special thing because it has played its part in the history of mankind. It has a character. People always refer to a ship in the feminine gender, and the whole story of shipping is bound up in romance; but I am afraid that the people who design these wonderful instruments and build them are not properly appreciated. It is only sometimes when we have war and trouble, when the cry goes up for ships to carry men, ammunition and goods, that the work is appreciated. In this day and age when we are living on the brink of trouble, when we are getting our strength together, one of the great elements in that strength is that which you produce. The power that you provide in the boilers of ships is an essential factor in the task we of the west are now undertaking to marshal our forces for peace and security. Therefore, I have very special pleasure in proposing this toast to the Institute of Marine Engineers who keep the life of the country going in peace time, and who carry the sinews of war when peace is no longer with us. (*Prolonged applause*).

The CHAIRMAN, in response to the toast, said: Mr. Minister, first of all I am sure the members of the Institute would wish me to thank you for the way in which you proposed the toast to the Institute. (*Applause*). It has been particularly pleasing to us that you should have done so, having regard to

the close connexion which we have had with that great sister society in the United States, The Society of Naval Architects and Marine Engineers.

I think that I should, at this stage, interpolate a note of regret that the President of the Institute, Sir Robert Micklem, has not been able to be present with us. It seems as if it is a habit of Presidents of this Institute to get stranded at sea somewhere! (*Laughter*). One item of interest I should mention with regard to Sir Robert's sojourn in Australia is that he has been able to convey the greetings of the Institute, and good wishes for the success of the newly formed section in Sydney. (*Hear, hear*).

I have already said how pleasing it is to us that the Minister from the United States has proposed this toast, and I should like to take this opportunity of referring to a recent occasion on which I paid a visit to the American Society of Naval Architects and Marine Engineers, in response to their kind invitation, when I attended their annual meetings in New York in November last. I then conveyed the greetings of this Institute, as I did of our other Institutions. These were very happily received, and I was requested to reciprocate greetings and good wishes to you, which I have in fact already done formally in writing. I can, however, assure you that it would be pleasing to them to know that I have also had this opportunity of conveying their greetings to you tonight. (*Applause*).

In the course of many close contacts which I have had with members of that great Institution, I have found that they still have very pleasant memories of the joint meetings which we had in this country in 1938. (*Hear, hear*). I think I can say that they are looking forward very much indeed to the moment when we can repeat such joint meetings. I believe it has been in all our minds that a repetition might take place in the United States, but in these days when it is difficult to get money to travel with, in particular dollars, the occasion seems rather a long way off. I do assure you, however, that on the other side of the Atlantic the idea of joint meetings holds a prominent place in their thoughts. They still talk of the wonderful meetings and functions of 1938, and always refer to that grand night at Guildhall. (*Hear, hear*).

I have no authority for what I am now going to say. I am merely thinking aloud; but if we cannot get dollars to go to the United States, is it not time that not only this Institute but other institutions which took part in the joint meetings in 1938 in this country thought of having them again in this country? (*Applause*). We are to have a Festival in Britain in 1951, and it would be difficult to think of a better year in which to hold another joint meeting.

Since the time of that last joint meeting this Institute has progressed enormously. We can now boast of a total membership of about 6,000, and in the annual report, which will soon be in the possession of all members and, I hope, in the possession of the shipowners, the great record of the valuable service which this Institute provides will be seen. The report will show the wide range of interesting and profound subjects on which excellent papers have been read and discussed, all of which advance the science of marine engineering in general, and to the great advantage of our ships in particular.

On the production side of the profession we live in times of great difficulty. For over two years we have been starved of steel, and, to make matters worse, our allocation today is actually less than it was in 1946. With an all-out capacity of the shipbuilding industry of this country to produce up to 3 million gross tons per annum, but recognizing all the difficulties of post-war conditions, the industry had planned itself to produce 1,700,000 gross tons per annum up to the 30th June 1948. We have been given steel which enables us to produce a round million tons, and the influence of that on the economics of the industry is, I am sure, quite clear to all of you. But for that very poor allocation of steel I feel it safe to say that by now we could have almost restored the United Kingdom mercantile marine to its pre-war volume. To many of us it sometimes seems that those who plan these supplies have no regard for the fact that we are an island nation, and that ships are the

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number one interest which we should all have. We know that there are great demands from other industries, but having regard to the fact that we live by the sea and ships, we do feel that more regard should be paid to this. (*Applause*). We wonder where all the steel is going to. (*Hear, hear*). The steel industry is not at fault; it is producing record amounts. Another thing we cannot understand is all this secrecy as to the allocations to the various industries. What is the need for it? There is certainly no strategic aspect about it.

The British Empire was conceived in the shipyards of Deptford, on this very river, in the times of Henry VIII and Elizabeth. That great heritage then created, has through the ages, meant so much for this nation, and has, as previous speakers have said, done so much for the world at large. It can only be continued by the maintenance of our shipyards in a high state of efficiency and, of course, in modern times, our marine engineering shops as well. We must all struggle to see that those who determine our destinies in this respect, that is in material allocations, will have regard to the fact that we are a maritime nation. (*Applause*).

In spite of it all we are producing some wonderful and beautiful ships. When occasionally I see some of them, and observe the very extensive equipment and elaboration which is put into them, I feel it must be costing an awful lot! (*Laughter*). I can assure you that if we had built the same beautiful and elaborate ships in 1938 and 1939, they would have cost as much as 25 to 30 per cent more than such ships at that time cost.

The Second Sea Lord has referred to the question of comfort in ships and in particular to the question of heat, and it reminded me of some of the problems with which we had to contend during the war when from this side came a request for tropicalisation, and from the other side a request for arcticization. We had to get somewhere in between the two!

The American Minister has referred to some of our con-

tacts with the United States during the war, and to the free and easy way in which we exchange views on technicalities and so forth. There are some stories concerning the war still to be told of some of the things we did in that way, during the autumn of 1940 in particular. We in this country, Mr. Minister, have a great regard for the war-time work of Admiral Land and Admiral Vickery. (*Applause*). You, Sir, have referred to Russia and the performance she put up, but an important feature was the enormous and magnificent output of ships from American shipyards that commenced in 1942, and the munitions of war they carried to North Russia and elsewhere that greatly contributed to that achievement. I maintain that that great output of ships was one of the decisive features and turning-points in the war. Admiral Vickery is no longer with us, but I assure you that all those who had contact with him had the highest regard and admiration for his great work.

On behalf of the Institute I should like to convey our thanks to all our guests for their company this evening. It has been a very great pleasure to have them with us. Then, again on behalf of the members of the Institute, I should like to say thanks to Mr. Craig, the Chairman of Council, for all the good work he has done during the year; to Mr. Curling, our Secretary, and to Mr. Robertson for having looked after our welfare. I thank them all on your behalf for the arrangements they have made for such a grand evening. Finally, I thank you, Mr. Minister, on behalf of the Institute, for your presence here this evening and your toast. (*Prolonged applause*).

The National Anthem having been sung, the proceedings then terminated.

Music during the Reception and Dinner was provided by Sydney Jerome's Orchestra, and the Vocalist was Robert Easton.

The Institute of Marine Engineers Guild of Benevolence

Minutes of Proceedings of the Fifteenth Annual General Meeting

The Fifteenth Annual General Meeting of the Institute of Marine Engineers Guild of Benevolence was held at 85 Minories, E.C.3 on Tuesday, 12th April 1949, at 2.30 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.

Apologies for absence were reported from Messrs. H. A. J. Silley, G. Speck and A. F. C. Timpson.

The Chairman opened the proceedings by calling upon the Secretary to read the Annual Report (see page xxv).

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

"In examining our Balance Sheet we have to consider three separate items as capital, i.e., the Capital Account, the John Silley Memorial Fund and the Income and Expenditure Account.

Our Capital Account shows an increase over last year of £453 0s. 4d., and now stands at £26,670 8s. 6d.

The John Silley Memorial Fund is increased from £22,504 8s. 11d. to £26,447 14s. 4d., an increase of £3,943 5s. 5d.

Under our Income and Expenditure Account there is an increase from £5,559 7s. 8d. to £5,949 6s. 0d., an increase of £389 18s. 4d.

One or two observations are necessary concerning the Assets side of the Balance Sheet as presented. The first item of £1,515 14s. 0d. represents our holding in 3 per cent Transport Stock, previously London Midland and Scottish Railway 4 per cent Preference Stock.

The item of £2,674 5s. 11d. in 3 per cent Transport Stock is a reinvestment, owing to the sale of £2,711 17s. 10d. Irish Guaranteed 3 per cent Stock.

The £503 19s. 0d. 3 per cent Savings Bonds 1965/75 is a new investment.

The increased figure of investments as Capital, therefore, amounts to £425 8s. 11d., the total now standing at £15,702 18s. 10d.

Ground Rents

These all stand at the same figures as in last year's accounts, viz.: £10,959 13s. 3d., but the figure is reduced to £424 14s. 3d. covering amounts received by way of war damage compensation on value payments and interest, bringing the net figure to £10,535.

Adjustments will be made during the coming year, as part of the Ryde property has been compulsorily acquired by the Ryde Corporation and two other blitzed properties are being acquired by the West Ham authorities.

Investments under John Silley Memorial Fund are increased from £22,390 19s. 9d. to £26,447 14s. 4d.

There is a new investment of £2,000 3½ per cent war

loan, and the income tax recoverable at 31st December 1948 amounted to £3,454 10s. 0d.

The first item of £4,634 16s. 9d. represents reinvestment following the sale of £4,770 16s. 0d. Irish Guaranteed 3 per cent Stock.

Under *Revenue Funds* we have a similar transfer of £788 2s. 2d. in Irish Guaranteed 3 per cent Stock to British Transport 3 per cent Stock standing at £777 3s. 4d.

There is also a new investment of £500 3 per cent savings bonds shown as £503 19s. 0d.

The total investments under Revenue Funds are increased from £3,900 8s. 0d. to £4,381 10s. 4d., an increase of £481 2s. 4d.

It is interesting to note that the total amounts shown in our Balance Sheet due to income tax recovered and recoverable are £4,143 2s. 5d. This money has since been received.

Income and Expenditure Account

Our total income is reduced from £2,344 11s. 5d. last year to £2,148 8s. 8d., a total reduction of £196 2s. 9d., due mainly to the fact that we have not received any contribution this year from King George's Fund for Sailors.

There is also a substantial drop of over £200 in annual subscriptions compared with last year's total, which, however, included a considerable amount of paid-up arrears.

This decrease is largely counterbalanced by an increase of dividends received, from £1,083 1s. 7d. in the previous year to £1,219 1s. 3d. during the year under consideration.

Relief distributed was almost identical in amount with that of the year before.

Under *Administration* there is one new item of £84 19s. 11d. This represents sundry solicitors' fees relating to claims we have handled on behalf of members, also solicitors' and surveyors' fees for negotiations regarding War Damage Claims on property.

We still have a balance, being excess of income over expenditure for the year, amounting to £413 0s. 6d. against an excess last year of £718 8s. 8d.

James M. Dewar Memorial

In my remarks last year I said that I hoped we should have this item appearing in our accounts this year. Unfortunately this has not been possible owing to the delay on the part of the revenue authorities in settling the final accounts of the late Mrs. Dewar's estate. I was in touch with my co-executors yesterday and was informed that they have not yet received final agreement from the Inland Revenue Authorities regarding the figures of the residuary estate submitted nearly five months ago. Immediately these figures are agreed, the estate will be divided, thus enabling us to incorporate the James M. Dewar Memorial Fund in our accounts. It is distressing that we are

Annual Report

not yet in a position to commemorate publicly our old friend, James M. Dewar, and thus acknowledge a most valuable contribution to our funds through his and his wife's generosity.

In the final result our Capital Funds stand at £59,067 8s. 11d. as against £54,281 4s. 9d. the previous year, an increase of £4,786 4s. 1d., mainly due to the generosity of Mr. H. A. J. Silley and his brother Mr. Bernard L. Silley.

The total value of our investments stands at £754 above the figure shown in our accounts as at the previous 31st December, and at the moment they stand at a higher figure still.

We have again to thank the many friends who have made donations during the year and who have thereby contributed to the increase and usefulness of the Guild".

MR. F. E. BARKER said that he felt sure that he was speaking on behalf not only of the members present, but all those who were unable to be present at the meeting, in expressing approval and appreciation of the Report and Accounts which had just been submitted to the meeting. The Honorary Treasurer had given a very clear résumé of the financial position. He referred with particular satisfaction to the item £84 9s. 11d., being the amount of expenditure under the heading *Administration—Sundries*; he thought this was a very small amount when one considered that it included solicitors' fees and other expenses involved in the negotiations with the Ministry of Pensions on behalf of two members of the Institute, whose appeals against previous adverse decisions had been sponsored by the Guild. He had much pleasure in formally proposing that the Report and Accounts be adopted.

MR. C. PRENTICE endorsed Mr. Barker's comments and had much pleasure in seconding his proposal.

On the proposal being put to the meeting by the Chairman the Report and Accounts were unanimously adopted.

The HONORARY TREASURER, MR. A. ROBERTSON, referred to the next business on the Agenda as being the election of a Chairman for the ensuing session. He said that the Guild had been very fortunate with regard to their Chairmen in the past. They would remember that the late Mr. George Adams had been the first Chairman of the Guild on its reconstruction in 1934, and that he had given unstinted care and attention to the work of the Guild during his administration. He had been most

ably succeeded by Mr. James Carnaghan, who had carried out the duties not only efficiently but conscientiously and had devoted a great amount of time to every case put before the Guild for consideration. In due course he had felt it necessary to retire in favour of a somewhat younger man, Mr. F. W. Youldon, who was elected to succeed him last year. Mr. Youldon had carried out his work as Chairman in a most efficient manner and had watched every case with meticulous care, and as Mr. Robertson did not think they could do better than re-elect Mr. Youldon as Chairman for the coming year, he had pleasure in proposing that Mr. Youldon be re-elected.

The proposal was seconded and carried unanimously by acclamation.

MR. YOULDON, in thanking the members for their expression of renewed confidence in him, said that he was very pleased by their approval of the report of the work carried out during the past year, and he promised to continue to carry out the duties devolving upon the Chairman to the best of his ability.

THE CHAIRMAN, on behalf of the General Committee, proposed that Mr. S. N. Kent (Vice-President) and Mr. G. Speck (Member of the Guild) be re-elected as Members of the General Committee for the ensuing session, and that Messrs. W. J. Ferguson and J. C. Lowrie (Members of Council) be elected as members of the General Committee to fill the vacancies occurring by rotation or by resignation.

This proposal was duly seconded and carried unanimously.

ENG'R REAR-ADMIRAL W. M. WHAYMAN, C.B., C.B.E. said that he felt sure that the members would agree with him that there could be no better service for anybody to undertake than to help those in need and they could do no less than accord a very hearty vote of thanks to the General and Executive Committees for the services they had rendered during the past year.

The proposal was carried unanimously by acclamation.

On the proposal of the Chairman, votes of thanks were accorded to the Honorary Treasurer, Mr. A. Robertson, the Secretary, Mr. B. C. Curling and Miss W. E. Reed.

The meeting then terminated.

	1939		1940		1941		1942		1943		1944		1945		1946		1947		1948	
Revenue :—	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Interest on Investments ...	396	14 10	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
Ground Rents ...	352	2 10	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
Members Subscriptions ...	245	7 3	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
Donations ...	225	18 9	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 ...	1,220	3 8	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
" " (without donations)	994	4 11	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
Expenditure ...	1,187	18 5	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
Investments (capital)	20,315	17 9	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	36,237	18 10
" " 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
Income Tax recoverable ...	60	4 2	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
Cash and Deposits A/c. ...	283	8 2	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

Fifteenth Annual Report of the General Committee

During the twelve months ending 31st December 1948, 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 1948 is given on pp. xxviii and xxix. In thirty-eight 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 eleven Subscribing Members have been elected during the year. Allowing for losses by death and resignation, the total membership of the Guild at the date of this report is 236 Life Members and 475 Subscribing Members. Of the latter 184 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

The thanks of the committee are again extended to Mr. H. A. J. Silley and Mr. B. L. Silley for their further donations to this fund.

F. W. YOULDON,
Chairman of General Committee
B. C. CURLING, *Secretary*

30th March 1949

DONATIONS TO THE INSTITUTE OF MARINE ENGINEERS GUILD OF BENEVOLENCE

From the date of foundation 2nd August 1934 to the 31st December 1947

	£	s.	d.		£	s.	d.
Abell, Sir Westcott S., K.B.E.	5	0	0	Brown Bros. and Co., Ltd.	52	10	0
Achille Serre (Employees)	4	0	0	Brown, F. T....	8	6	
Adams, George (Legacy)	100	0	0	Brown, G. J.	10	6	
Adams, George (Trustees)	12	10	0	Bruce, D. (2 donations)	6	1	0
Aitken-Quack, E.	5	5	0	Bruce, J. W. (4 donations)	2	2	0
Aiton and Co., Ltd.	10	10	0	Buckton, W. W. (Legacy)	25	0	0
Akman, O. M. (6 donations)	5	6	0	Burgis, F. M.	2	11	0
Alfa-Laval Co., Ltd.... ..	5	5	0	Burrage, E. E. (5 donations)	4	11	6
Allen, W. H., Sons and Co., Ltd. (2 donations)	126	0	0	Burrow, N.	17	0	
Alton, W. A. (4 donations)	11	11	0	Butler, E. F. (3 donations)	2	2	6
Anglo-Saxon Petroleum Co., Ltd.	1,000	0	0	Button, W. A.	10	6	
Annal's Trust	2	2	0				
Anonymous donors	119	13	6	Calderwood, J., M.Sc. (2 donations)	4	2	0
Arundel, G. E.	10	6		Cameron, R. V.	1	1	0
Aston, J. Herbert, J.P. (2 donations)	2	2	0	Cammell, Laird and Co., Ltd.	105	0	0
Atlas Preservative Company	1	1	0	Campbell, A. K. M. (3 donations)	1	5	6
Australian Institute of Marine and Power Engineers	1	11	6	Cant, A. J. (3 donations)	2	2	0
Auto-Klean Strainers, Ltd.	10	10	0	Carnaghan, J. T., B.Sc.	2	2	0
Babcock and Wilcox, Ltd.	105	0	0	Carter, H. D. (4 donations)	8	8	0
Barr, H. (5 donations)	2	0	6	Chesterfield Tube Co., Ltd.	105	0	0
Beldam, C. A.	105	0	0	Christensen, S. G. (9 donations)	7	13	0
Bennet, J.	5	0		Christianson, W. A. (2 donations)	2	2	0
Black, J. D. (3 donations)	1	18	6	Clark, A. W.	10	6	
Blackledge, R. S.	12	0		Clarke, Chapman and Co., Ltd.	500	0	0
Blundells and T. Albert Crompton and Co., Ltd. (5 donations)	52	10	0	Clegg, A.	1	1	0
Booty, M. J. (7 donations)	3	13	6	Cleveland, E. G.	2	0	
Bridges, F. W. (Legacy)	100	0	0	Coffyn, Captain T.	5	5	0
M.V. <i>Brisbane Star</i> (Captain and Officers' Fund)	1	1	0	Cole, T. E. (2 donations)	9	0	
British India Steam Navigation Co., Ltd.... ..	750	0	0	Colines, S. G. (8 donations)	5	16	0
British Power Boat Co., Ltd.	1	1	0	Collacott, R. A., B.Sc., Ph.D. (2 donations)	5	5	0
British Thomson-Houston Co., Ltd.	25	0	0	Collings, J. W.	1	0	0
Brown, A. and R., Ltd., (6 donations)	31	10	0	Cookson, F. R. C. (9 donations)	5	2	6
				Corr, D. J.	1	0	0

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	£	s.	d.		£	s.	d.
Cottrell, A. B.	10	0	0	Hastie, J. and Co., Ltd.	105	0	0
Cowan, C. J.	100	0	0	Hawthorn, R. and W., Leslie and Co., Ltd. ...	250	0	0
Craigmyle, Rt. Hon. Lord	105	0	0	Heenan and Froude, Ltd.	10	10	0
Crane Packing, Ltd.	10	10	0	Henderson, J. M.	1	1	0
Cross, A.	2	10	0	Heriot, J. C.	19	0	0
Cunard White Star, Ltd. (16 donations) ...	358	0	0	Higgs, H. A.	16	0	0
Darwins, Ltd.	10	10	0	Hindmarch, T. (2 donations)	21	0	0
Davey, Paxman and Co., Ltd. (5 donations) ...	52	10	0	Homewood, Miss B. E.	2	2	0
Davidson, Major General A. E., C.B., D.S.O. (4 donations)	7	16	4	Hood, J. E. V. (2 donations)	1	3	0
Davies, B. D.	15	0	0	Hopes, T.	8	6	0
Davies, F. S.	3	3	0	Hopewell, G. H. (3 donations)	31	0	0
Delves, J. V.	3	3	0	Houston, W. C. (2 donations)	8	0	0
Denny, J.	1	12	6	Howden, James and Co., Ltd.	21	0	0
Denny, Sir Maurice E., Bt., C.B.E., S.B. ...	100	0	0	Hunter, Mrs. R. A. (4 donations)	4	4	0
Denny, Wm. and Bros., Ltd.	50	0	0	Hutchinson, G. H. M.	10	0	0
Dewar, J. M.	2	2	0	Hutchinson, G. R. (7 donations)	107	15	6
Dewrance and Co., Ltd.	26	5	0	Hutchison, M.	5	0	0
Dodds, T. (5 donations)	2	5	6	I.C.I. Metals, Ltd.	10	10	0
Dorey, S. F., C.B.E., F.R.S., D.Sc., Wh.Ex. ...	10	0	0	I.C.I. Metals, Ltd., Birmingham (Employees) ...	50	0	0
Drossi, H. H. R.	2	2	0	Imrie, W.	1	0	0
Drummond, R. M.	13	0	0	Inchcape, Rt. Hon. Earl of	1,000	0	0
Drysdale and Co., Ltd.	105	0	0	Institute of Marine Engineers (12 donations) ...	1,576	4	11
H.T. Dunera	5	5	0	Jack, J. W. A. (2 donations)	15	0	0
Dunster, W. (per F. W. Youldon)	5	0	0	Jackson, D. H.	10	6	0
Eagle Oil and Shipping Co., Ltd.	105	0	0	Jennings, F.	10	6	0
East, A. S.	1	1	0	Jones, F. M., B.Sc.	1	1	0
Ellerman and Bucknall Steamship Co., Ltd. ...	3	10	0	Jones, H. S.	4	4	0
Ellson, J. (3rd donation)	3	3	0	Jordan, H. J.	5	2	0
English Electric Co., Ltd.	105	0	0	Kay, J. M.	10	0	0
Evans, A. F.	3	3	0	Kennedy, R. S. (2 donations)	2	2	0
Ewing, P. (2 donations)	20	10	6	Kerr, W.	10	6	0
Fairfield Shipbuilding and Engineering Co., Ltd.	105	0	0	Kincaid, J. G. and Co., Ltd.	105	0	0
Farmer, J. D., O.B.E. (2 donations)	8	0	0	King, D. H.	10	10	0
Federal Steam Navigation Co., Ltd.	500	0	0	King George's Fund for Sailors (8 donations) ...	1,450	0	0
Ferring Local Savings Group (3% Defence Bonds)	15	0	0	Kirkaldy, W. H. (4 donations)	14	6	0
Fielding, B. P.	1	1	0	Kirkbright, G.	1	0	0
Firth, T., and J. Brown, Ltd.	21	0	0	Klinger, Richard, Ltd.	21	0	0
Fleming, S. W. C. (4 donations)	2	5	6	Kuske, Z. (3 donations)	3	18	0
Folland Aircraft, Ltd.	10	10	0	Lang, L. (3 donations)	1	17	0
Foster Wheeler, Ltd.	10	10	0	Lang, W. V.	2	2	0
Funnell, A. J. (3 donations)	1	11	6	Laurence Scott and Electromotors, Ltd. ...	21	0	0
Furness, Withy and Co., Ltd.	1,000	0	0	Laws, W.	5	5	0
Galloway, J. H. (3 donations)	1	11	6	Ledger, A. H.	2	2	0
Gamble, F. D. M.	1	2	0	Lees, T. R.	3	3	0
General Electric Co., Ltd.	21	0	0	Leslie, R.	1	11	6
George, W. R.	10	6	0	Lloyd's Register of Shipping (3 donations) ...	78	15	0
Gerard, A. J.	3	8	0	Logan, A.	10	6	0
Gibson, A. T.	8	6	0	Longmuir, T. W. (7 donations)	7	6	0
Gillies, W.	1	0	0	Lovatt, G. H. V. (2 donations)	17	6	0
Glass, W. J. S.	1	5	6	Luckly, S. F.	5	0	0
Gordon-Luhrs, Lt.-Col. H., C.M.G. (6 donations)	11	10	0	Macdonald, T.	5	5	0
Gorringe, H. M.	1	1	0	McIntosh, G.	10	0	0
Gough, R. H. (5 donations)	5	5	0	McKie, H.	1	1	0
Graham, W.	18	0	0	McKinlay, R. D. M. (4 donations)	8	8	0
Grant, W. C.	1	1	0	McLean, H. (5 donations)	6	18	0
Green, C.	10	6	0	McLeod, L. A.	10	6	0
Green, R. H.	100	0	0	McPherson, J.	2	13	0
Green, R. H. and Silley Weir, Ltd.	500	0	0	Manganese Bronze and Brass Co., Ltd.	52	10	0
Gregg, A. E. C. (4 donations)	4	18	6	Marshall, P. J.	5	0	0
Gregor, Capt.(E) W., M.Sc., R.N.R.	10	10	0	Martin, A.	1	0	0
Grootenhuis, W. C.	1	1	0	Mather, A. H.	10	6	0
Guerin, W. R. (4 donations)	2	2	0	Mather and Platt, Ltd.	10	10	0
Gullett, T. E. (6 donations)	21	3	0	Mellor, W. (10 donations)	10	10	0
Hall, J. and E., Ltd. (4 donations)	200	0	0	Middleton, J. D. (3 donations)	1	11	6
Hampshire, C. J.	15	15	0	Middleton, W. J.	1	1	0
Hannam, J. R.	1	2	6	Mitchell, J.	7	6	0
Harland and Wolff, Ltd.	250	0	0	Montgomery, J.	15	0	0
Harrington, W. A. (6 donations)	6	17	6	Morgan, V. W.	1	1	0
Harrison, F. J.	5	5	0	Mosey, H. Y.	1	5	0
Hart, N.	1	1	0	Mountstuart Dry Docks, Ltd.	100	0	0
Harvey, A.	1	0	0	Mumford, N. (4 donations)	13	8	0
				Mumford, N. (Legacy)	142	10	0

Annual Report of the Guild of Benevolence

	£	s.	d.		£	s.	d.
Murray, A.	6	0	0	Skinner, D. B. (5 donations))	3	13	6
Murray, John and Pilot Press, Ltd.	25	0	0	Smith, A. F., Com'r(E)	2	10	0
Naylor, H. (5 donations)	2	2	6	Smith, Eng. Com'r D. Hastie, R.N.(ret)	3	3	0
Nelson, W. Lynn, O.B.E.	25	0	0	Snell, J. (7 donations)	4	2	3
New Zealand Steam Ship Co., Ltd.	500	0	0	Soanes, E. G. (2 donations)	6	5	6
Nicholl, Com'r Sir Edward, K.B.E., R.N.R.	105	0	0	Somers, Walter, Ltd.	52	10	0
North Eastern Marine Engineering Co., Ltd.	100	0	0	Soulsby, Sir L. T. G.	5	0	0
Orient Line, Ltd.	500	0	0	Spanner, E. F., R.C.N.C.(ret) (2 donations)	15	0	0
Ormiston, G....	5	5	0	Spanner, W. F., R.C.N.C.	1	0	0
Oswald, J. H....	1	0	0	Spanner, Mr. and Mrs. W. F.	2	10	0
Owen, G. H. L. (3 donations)	3	3	0	Speirs, H. J. (Legacy)	450	0	0
Painter, R. E....	8	2	0	Stanbridge, C. H.	10	6	0
Parker, A. H....	3	0	0	Stein, J. and Co., Ltd.	21	0	0
Parkin, F.	10	6	0	Step, A. G. (3 donations)	2	1	10
Parsons Marine Steam Turbine Co., Ltd.	100	0	0	Stephen, Alexander and Sons, Ltd.	50	0	0
Paszyc, A., Dr. (2 donations)	2	18	11	Stephenson, B.	10	10	0
Paxman, E. P., M.A. (Annual)	2	2	0	Stone, J. and Co., Ltd.	25	0	0
H.N.P.	1	1	0	Strachan, R. R.	19	0	0
Peacock, J.	5	5	0	Sulzer Bros. (London), Ltd. (2 donations)	21	0	0
Peckham, R. A., in memory of Mr. O. G. Peckham	2	0	0	Superheater Co., Ltd. (8 donations)	73	10	0
P. and O. S.N. Co., Ltd.	750	0	0	Swanbrow, C. J. (4 donations)	4	4	0
Petree, J. Foster	10	10	0	Swansea Members	5	5	0
Petters, Ltd.	21	0	0	Tait, W. A. (13 donations)	8	16	6
Pip	1	1	0	Thatcher, B.	5	0	0
Pirie, H. L.	2	2	0	Thatcher, C. B.	6	3	0
Platford, A. N. (2 donations)	2	2	0	Thomas, J. K. (10 donations)	4	18	0
Pobes, J.	5	0	0	Thompson, John (Wolverhampton), Ltd.	21	0	0
Poli (Cartoonist at the Conversazione)	2	0	0	Thornycroft, John I. and Co., Ltd.	21	0	0
Pollock, James, Sons and Co., Ltd. (2 donations)	10	10	0	Timpson, A. F. C., M.B.E.	1	1	0
Porn, M.	10	10	0	Train, J. T. (3 donations)	2	0	6
Powrie, R. P.	10	6	0	Trenchard, L. D. (3 donations)	3	2	0
Preece, Eng. Vice-Admiral Sir George, K.C.B. (2 donations)	6	6	0	Tube Investments, Ltd.	25	0	0
Preece, S. G.	10	10	0	Tune, H. E. (2 donations)	1	0	6
Prentice, C. (4 donations)	3	12	6	Turnbull, F. (5 donations)	2	10	6
Preston, J. J. (4 donations)	6	14	4	Tyrrrell, H. R., Major, I.A.O.C. (3 donations)	11	12	0
Quarrell, A. P. (5 donations)	5	8	0	Vickers-Armstrongs, Ltd.	250	0	0
Quin, Park, Fleming Benevolent Committee	4	0	0	Wales Dove Bitumastic, Ltd.	26	5	0
Raimes, G. W. B. (4 donations)	1	10	0	Walker, J. C.	10	6	0
Ramsey, J. W. (4 donations)	10	18	0	Wallace, W. E. G. (4 donations)	1	7	6
Rea, P. R.	11	3	0	Wallis, R. Pendennis, Ph.D., M.Sc., Wh.Ex. (5 donations)	5	5	0
Reavell and Co., Ltd.	25	0	0	Wallsend Slipway and Engineering Co., Ltd.	105	0	0
Rebbeck, Sir F. E., D.L., J.P.	25	0	0	Ward, J. (2 donations)	2	6	0
Reed, G. H.	10	6	0	Warder, E. J....	10	6	0
Reid, F. H., B.Sc., Wh.Ex.	10	6	0	Watson, G. O.	2	2	0
Richmond, Sir J. R., K.B.E.	1,000	0	0	Watts, Fincham, Ltd. (4 donations)	8	8	0
Riddell, A. M. (2 donations)	13	2	6	Webster, D. G. (2 donations)	1	16	0
Risoe, A.	6	0	0	Weir, Andrew and Co., Ltd.	1,000	0	0
Ritchie, F. G. (2 donations)	10	10	6	Weir, G. and J., Ltd.	1,000	0	0
Roberts, W. H.	1	1	0	Weir, James (Trust Fund)	2,000	0	0
Robertson, A. (4 donations)	21	0	0	Weir, Rt. Hon. Viscount, of Eastwood, P.C., G.C.B., D.L.	1,000	0	0
Robinson, E. F. B. (5 donations)	2	11	0	Weir, J. G., C.M.G., C.B.E.	1,000	0	0
Robinson, J.	5	0	0	White, J. Samuel and Co., Ltd.	25	0	0
Rogers, B.	2	10	0	Whitehall Technical Press	21	0	0
Rooks, G.	1	1	0	Whiteside, E.	5	0	0
Routledge, J.	2	0	0	Wight, R. B. (8 donations)	4	10	0
Roux, A. E.	6	10	0	Williams, Mrs. B.	2	2	0
Royal Mail Lines, Ltd.	105	0	0	Wilson, G. M. (Bequest)	200	0	0
Rubery, Owen and Messier, Ltd.	10	10	0	Wiltshire, E. F.	3	12	0
Ruston and Hornsby, Ltd. (2 donations)	42	0	0	Wood, F. (5 donations)	5	5	0
Ryland, E. T....	1	1	0	Wood Lee (2 donations)	2	2	0
Scott, H. (2 donations)	1	10	6	Wren, C. W. Limpricht (3 donations)	4	4	0
Scott's Shipbuilding and Engineering Co., Ltd.	105	0	0	Yarrow and Co., Ltd.	52	10	0
Sellex, J. E.	10	0	0	Yarwood, A.	2	12	0
Serck Radiators, Ltd.	26	5	0	Yorkshire Copper Works, Ltd.	26	5	0
Shaw, Savill and Albion Co., Ltd.	525	0	0	Youldon, E.	10	0	0
Shipmaster	1	0	0	Youldon, F. W. (collecting box—6 donations)	6	3	0
Shoebridge, J.	10	0	0	Young, J. (3 donations)	3	3	0
Silley, John H., O.B.E.	500	0	0	Young, R.	2	6	0
Simpson, Major P. A. M., R.E. (7 donations)	10	13	6	Zulver, C.	5	5	0
Sinclair, F. T.	10	6	0				

Annual Report

Donations from 1st January to 31st December 1948

				£	s.	d.					£	s.	d.
Mrs. R. Hunter (5th donation)	...	...	...	1	1	0	A. J. Elderton	...	...	...	5	0	0
J. Snell (8th donation)	...	...	...	12	6		A. R. Evans	...	...	...	10	6	
W. Wilson	...	...	...	10	6		E. E. Burrage	...	...	...	1	1	0
B. Stephenson (2nd donation)	...	...	...	10	10	0	E. F. Butler	...	...	...	12	0	
A. Watt	...	...	...	10	6		Box in Hall	...	...	...	1	4	7
W. Mellor (11th donation)	...	...	...	1	1	0	B. Rogers	...	...	...	1	1	0
M. Simmonds	...	...	...	17	0		J. B. Krajewski	...	...	...	10	6	
J. J. Vanston	...	...	...	100	0	0	F. J. Crew	...	...	...	17	6	
H. N. Rutledge	...	...	...	6	0		I. M. Fraser	...	...	...	15	0	
T. A. Rush	...	...	...	10	6		Lt. Colonel H. Gordon-Luhurs	...	...	...	2	1	6
H. Scott (3rd donation)	...	...	...	10	6		J. H. Ashton	...	...	...	1	1	0
R. Gough (6th donation)	...	...	...	1	1	0	J. H. Heaton	...	...	...	10	6	
F. Wood (6th donation)	...	...	...	1	1	0	Major General A. R. Davidson (5th donation)	...	...	...	1	16	4
H. D. Carter (5th donation)	...	...	...	2	0	0	Anonymous	...	...	...	2	12	6
Major R. Pendennis Wallis, Ph.D., M.Sc., Wh.Ex. (6th donation)	...	...	...	1	1	0	W. C. Grant	...	...	...	2	2	0
F. A. Manders	...	...	...	10	6		C. J. Swanbrow	...	...	...	1	1	0
G. W. Walker	...	...	...	3	6		Blundells and T. A. Crompton and Co. Ltd. (6th donation)	...	...	...	10	10	0
W. Archibald	...	...	...	10	6		A. Robertson (6th donation)	...	...	...	5	5	0
J. M. Maid	...	...	...	2	10	0	A. and R. Brown, Ltd. (7th donation)	...	...	...	5	5	0
D. B. Ross	...	...	...	14	6		Cunard White Star, Ltd. (17th and 18th donations)	...	...	...	100	0	0
Anonymous	...	...	...	1	1	0	E. E. Mees	...	...	...	18	9	0
Anonymous	...	...	...	3	3	0	G. A. V. Lovatt	...	...	...	10	0	
C. Robotham	...	...	...	10	6		Davey, Paxman and Co., Ltd. (6th Donation)	...	...	...	10	10	0
W. R. Mathers	...	...	...	10	6		G. E. Arundel	...	...	...	10	6	
J. M. Henderson	...	...	...	10	6		G. B. Williams	...	...	...	1	0	0
W. R. Guerin (5th donation)	...	...	...	10	6		A. E. C. Gregg	...	...	...	17	6	
A. J. Cant (4th donation)	...	...	...	1	1	0	J. J. Dwyer	...	...	...	15	0	
A. Harvey (2nd donation)	...	...	...	1	1	0	W. A. Tait	...	...	...	1	9	6
Sir Summers Hunter	...	...	...	2	10	0	T. A. Rush	...	...	...	10	6	
R. D. McKinley	...	...	...	2	2	0	R. A. N. Cooke	...	...	...	10	0	
J. D. Black	...	...	...	12	6		J. Snell (9th donation)	...	...	...	12	6	
P. A. M. Simpson	...	...	...	1	12	6							

Donations from 1st January to 31st March 1949

				£	s.	d.					£	s.	d.
Mrs. R. Hunter (6th donation)	...	...	...	1	1	0	R. B. Wight (9th donation)	...	...	...	10	0	
C. J. Gumbrell	...	...	...	2	2	0	G. L. Hutchinson (8th donation)	...	...	...	1	10	0
W. Mellor (12th donation)	...	...	...	1	1	0	W. Wilson	...	...	...	7	0	
Lee Wood (3rd donation)	...	...	...	10	6		H. Scott (4th donation)	...	...	...	10	6	
Major R. Pendennis Wallis, Ph.D., M.Sc., Wh.Ex. (7th donation)	...	...	...	1	1	0	H. D. Carter (6th donation)	...	...	...	2	0	0
Anonymous	...	...	...	1	1	0	J. D. Black (3rd donation)	...	...	...	10	0	
P. A. M. Simpson (2nd donation)	...	...	...	1	0	0	A. Harvey (3rd donation)	...	...	...	1	1	0
R. H. Gough (7th donation)	...	...	...	1	1	0	W. R. Guerin (6th donation)	...	...	...	10	6	
F. Wood (5th donation)	...	...	...	1	1	0	A. J. Cant (5th donation)	...	...	...	1	1	0
G. Rooks	...	...	...	1	1	0	J. P. Campbell	...	...	...	5	0	0

PARTICULARS OF THE CASES ASSISTED BY THE GUILD

from 1st January to 31st December 1948

Case No.	Age	Qualification	Amount of Relief Granted £ s. d.	Case No.	Age	Qualification	Amount of Relief Granted £ s. d.
1	70	Widow of former member of The Institute	66 0 0	72	69	Widow of marine engineer... (Christmas grant only)	1 0 0
3	81	Member of The Institute	114 0 0	76	69	Widow of marine engineer... (Christmas grant only)	1 0 0
6	67	Daughter of marine engineer	34 10 0				
8	68	Widow of marine engineer...	37 8 0	80	69	Sister of former member of The Institute	53 0 0
19	92	Widow of marine engineer...	1 5 0				
44	70	Widow of marine engineer...	20 10 0	85	75	Widow of marine engineer...	14 0 0
47	68	Widow of marine engineer...	27 0 0	96	73	Widow of former member of The Institute	66 0 0
51	69	Widow of former member of The Institute	20 10 0	97	77	Widow of marine engineer...	20 10 0
53	71	Widow of marine engineer...	11 5 0	98	81	Marine engineer	14 0 0
58	71	Widow of marine engineer...	20 10 0	101	82	Marine engineer	29 6 0
71	57	Marine engineer	53 0 0	103	50	Widow of marine engineer...	45 4 0

Annual Report of the Guild of Benevolence

Case No.	Age	Qualification	Amount of Relief Granted	Case No.	Age	Qualification	Amount of Relief Granted
			£ s. d.				£ s. d.
104	83	Marine engineer	1 0 0	141	52	Institute	49 15 0
			(Christmas grant only)	143	40	Daughter of marine engineer ...	33 10 0
107	62	Widow of marine engineer... ..	8 15 0				
109	66	Widow of marine engineer... ..	20 5 9				
114	75	Marine engineer	29 6 0	144	56	Widow of former member of The Institute	86 0 0
120	59	Marine engineer	33 10 0	145	62	Widow of former member of The Institute	76 0 0
123	48	Widow of former member of The Institute	73 18 0	146	68	Widow of former member of The Institute	58 4 0
125	51	Member of The Institute... ..	66 0 0	147	56	Widow of former member of The Institute	66 0 0
127	59	Widow of former member of The Institute	66 0 0	148	40	Widow of former member of The Institute	32 10 0
128	77	Widow of marine engineer... ..	14 15 0	149	55	Member of The Institute	27 0 0
131	55	Widow of marine engineer... ..	33 10 0				
133	59 and 69	Daughters of former member of The Institute	83 5 0				
134	79	Widow of former member of The Institute and Guild	20 10 0				
138	45	Widow of marine engineer... ..	49 15 0				
140	65	Widow of former member of The Institute	49 15 0				
							£1,586 6 9

LIST OF MEMBERS AT DATE OF PUBLICATION OF THIS REPORT

Life Members

Adie, P. I.	Crichton, A. E.	Hayward, S. G.	McMenemy, W. H.
Alexander, Claud	Crompton, T. A.	Henderson, J.	Maddick, W.
Allen, H. G., M.A.	Crompton, T. M.	Henderson, J. M.	Maid, J. M.
Allen, Norman G.	Crookston, D. D.	Hillier, H., O.B.E.	Marshall, J. S. Clayton
Allen, Sir R. W., C.B.E., D.L.	Cuttle, H. H.	Hindmarch, T.	Martin, C. E.
Allen, Rupert S.		Hoare, H. J.	Maundrell, H. B. H.
Allen, W. K. G.	Davidson, A. E., Major-Gen., C.B., D.S.O.	Hoare, J. H.	Mearns, E. A.
Alton, W. A.	Davis, Gordon, Lt.(E), R.N.V.R.	Holly, R. J. W.	Mees, E. E.
Andrew, George	Denny, W.	Hood, R.	Mees, J. M.
Armstrong, Hugh	Dodd, C. G.	Houlder, M. C.	Mellor, W.
Aston, J. H., J.P.	Dougan, A. S.	Houston, W. C.	Menzies, W. G.
Atkinson, W. A. R.	Drossi, H. H. R.	Hulbert, W.	Milne, J. A.
Austin, J.	Drysdale, Ian	Hume, Crawford W.	Mitchell, P. G. Mylne
	Dunn, W.	Hunter, Sir Summers	Moore, C. K.
		Hutchinson, G. R.	Morrison, S. A.
			Moseley, O. H. G. K.
			Munchi, J.
Bailey, W. H.	Easthope, R. J.	Imrie, W.	
Balmer, H. S.	Espin, W. L.	Johnson, John	Neil, John, B.Sc.
Bedford, G. E.	Evans, Frank S.	Johnson, P. B., B.A.	Nelson, C. B.
Berlie, R. S.		Jones, W. C.	Nelson, Sir George H.
Blair, D. E.	Farkas, A. D.	Jones, W. H.	Nelson, W. L., O.B.E.
Blevin, W. N.	Farmer, J. D., O.B.E.		Nevin, W. A.
Brettell, W. G.	Ferguson, L. J.	Kedzlie, J. E.	Nicol, J.
Bruce, W. J. Willett, O.B.E., R.D., M.Eng., Eng. Capt. R.N.R.(ret)	Foley, Sir E. Julian, C.B.	Kent, S. N.	Norman, H. H.
Buchanan, H. D.	Froggatt, L.	Khambata, M. D.	
Burke, N.		Kincaid, Randal G.	Ormiston, George
Burrage, E. E.	Gamage, L. C.	King, F. V., Eng. Rear Admiral	Owen, G. H. L.
Butler, H. J.	Gibbons, T.	Knipe, W. D.	
Butson, C. W.	Gilles, R. M.	Knopp, L., M.Sc.	Parker, A. H.
	Goldup, D. R.		Parker, E.
Campbell, A.	Gordon, S. G.	Lamb, John	Parker, G. Clayton
Campbell, G. R., Sir	Grange, G. R., Lt. Col., D.S.O., M.C., B.Sc.	Levick, R. S. H.	Parker, H. A.
Carson, W. D.	Grant, Sir Allan J., J.P.	Lewer, L. J.	Parsons, Hon. Geoffrey L.
Carswell, D. B., O.B.E.	Grant, W. C.	Lewis, J. B.	Payne, J. B. D.
Chamberlain, J. H., Comd. Engr., D.S.C., D.S.M., R.N.	Green, R. H.	Llewellyn, R. J.	Payne, J. E. M.
Christensen, S. G.	Greenfield, Eric	Lowrie, J. C.	Peacock, James
Christie, J. G.	Greig, K. E.		Petter, R. C., Capt.
Clarke, R. T.	Groom, R. W.	Macdonald, T.	Pickering, G.
Clough, E.	Gummer, R. H.	MacKay, A. M.	Pickthall, F. J.
Coates, W.		McCormick, A. P.	Platford, A. N., Lieut-Com'r(E), R.N.V.R.
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Aiton and Co. Ltd. ...	100	0	0	British Phosphate Commissioners, Ltd. ...	1	1	0
Albyn Line, Ltd. ...	10	10	0	British Tanker Co. Ltd. ...	525	0	0
Alexander (Machinery) Ltd., Geo. H. ...	3	3	0	British Transformer Oil and Lubricants, Ltd. ...	2	2	0
Alfa Laval Co. Ltd. ...	50	0	0	Broady and Son, Ltd., W. ...	10	10	0
Allen, Sons and Co. Ltd., W. H. ...	100	0	0	Brocklebank, Ltd., T. and J. ...	100	0	0
Anchor Line, Ltd. ...	105	0	0	Broken Hill Proprietary Co. Ltd. ...	100	0	0
Andrews and Cameron, Ltd. ...	3	3	0	Brotherhood, Ltd., Peter ...	52	10	0
Anglo-American Oil Co. Ltd. ...	525	0	0	Brown and Sons (Huddersfield), Ltd., David ...	5	5	0
Anglo-Danubian Transport Co. Ltd. ...	5	5	0	Brown and Co. Ltd., John ...	1,000	0	0
Anglo-Saxon Petroleum Co. Ltd. ...	525	0	0	Brown, Ltd., A. and R. ...	26	5	0
Angus and Co. Ltd., George ...	52	10	0	Brown Brothers and Co. Ltd. ...	150	0	0
Ansell, Jones and Co. Ltd. ...	5	5	0	Brown, Ltd., S. G. ...	10	10	0
Arnott, Young and Co. Ltd., W. H. ...	2	2	0	Bryce Fuel Injections, Ltd. ...	5	5	0
Ary Shipping, Ltd. ...	5	5	0	Buck and Hickman, Ltd. ...	5	5	0
Asiatic Steam Navigation Co. Ltd. ...	250	0	0	Bulk Oil Steamship Co. Ltd. ...	100	0	0
Associated British Oil Engines, Ltd. ...	25	0	0	Bullard, King and Co. Ltd. ...	52	10	0
Athel Line, Ltd. ...	105	0	0	Bull's Metal and Melloid Co. Ltd. ...	26	5	0
Atlas Preservative Co. Ltd. ...	10	10	0	Buries Markes, Ltd. ...	5	5	0
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Australasian United Steam Navigation Co. Ltd. ...	150	0	0	Burntisland Shipbuilding Co. Ltd. ...	105	0	0
Australial Oriental Line, Ltd. ...	26	5	0	Burton, Griffiths and Co. Ltd. ...	5	5	0
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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
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Barline Transports, Ltd. ...	5	5	0	Chemical and Insulating Co. Ltd. ...	10	10	0
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Beal and Son, Ltd. (2 donations) ...	6	6	0	Churchill and Co. Ltd., Charles ...	100	0	0
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Beldam Asbestos Co. Ltd. ...	25	0	0	Clarke, Chapman and Co. Ltd. ...	150	0	0
Beldam Packing and Rubber Co. Ltd. ...	105	0	0	Clydesdale Engineering Works ...	5	5	0
Bell's Asbestos and Engineering, Ltd. ...	10	10	0	Coast Lines, Ltd. ...	100	0	0
Bibby Bros. and Co. ...	300	0	0	Coker and Co. Ltd., A. ...	3	3	0
Billington and Newton, Ltd. ...	5	5	0	Cole, Ltd., E. K. ...	10	10	0
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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
Britain Steamship Co. Ltd. ...	105	0	0	Cruickshank and Co. Ltd. ...	5	5	0
British and Continental Steamship Co. ...	25	0	0	Currie Line, Ltd. ...	25	0	0
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Donkin and Co. Ltd. ...	5	5	0	Heenan and Froude, Ltd. ...	10	10	0
Dorey and Sons, Ltd., Onesimus ...	10	10	0	Henderson and Co., P. ...	300	0	0
Dover Navigation Co. Ltd. ...	25	0	0	Hepworth and Grandage ...	10	10	0
Doxford and Sons, Ltd., William ...	750	0	0	Herbert, Ltd., Edward G. ...	1	1	0
Drypool Engineering and Dry Dock Co. Ltd. ...	2	2	0	Hindustan Steam Shipping Co. Ltd. ...	26	5	0
Drysdale and Co. Ltd. ...	250	0	0	Ho Hong Steam Ship Co. Ltd. ...	100	0	0
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Eastern and Australian Steam Ship Co. Ltd. ...	150	0	0	Howson and Co. Ltd., Charles ...	20	0	0
E.C.D., Ltd. ...	50	0	0	Hoyt Metal Co. of Great Britain, Ltd. ...	10	10	0
Edison Swan Cables, Ltd. ...	10	10	0	Hudson Steam Ship Co. Ltd. ...	5	5	0
Elder Dempster Lines, Ltd. ...	500	0	0	Hull Gates Shipping Co. Ltd. ...	2	2	0
Elders and Fyffes, Ltd. (2 donations) ...	78	15	0	Humber Graving Dock and Engineering Co. Ltd. ...	100	0	0
Ellerman Lines, Ltd. ...	1,000	0	0	Hunting and Son, Ltd. ...	100	0	0
Ellerman's Wilson Line, Ltd. ...	250	0	0	Hyland, Ltd. ...	10	10	0
English Electric Co. Ltd. ...	250	0	0	Indo-China Steam Navigation Co. Ltd. ...	50	0	0
Euxine Shipping Co. Ltd. ...	10	10	0	Irvin and Sellers, Ltd. ...	5	5	0
Everard and Sons, Ltd., F. T. ...	105	0	0	Jacobs and Co. Ltd., John I. ...	125	0	0
Fairfield Shipbuilding and Engineering Co. Ltd. ...	500	0	0	Jeffries and Sons, Ltd., J. ...	26	5	0
Federal Steam Navigation Co. Ltd. ...	1,000	0	0	Jenkins and Co. Ltd., Robert ...	5	5	0
Ferguson and Timpson, Ltd. ...	52	10	0	Jones and Co., Richard W. ...	10	10	0
Fielding and Platt, Ltd. ...	10	10	0	Jones and Sons, Frederick ...	5	5	0
Fisher and Sons, Ltd., James ...	26	5	0	Keenan and Co. Ltd., Matthew ...	10	10	0
Foster Wheeler, Ltd. ...	105	0	0	Key Engineering Co. Ltd. ...	2	2	0
France, Fenwick and Co. Ltd., Wm. ...	105	0	0	Kincaid and Co. Ltd., John G. ...	250	0	0
Frances Steam Ship Co. Ltd. ...	12	10	0	King, Ltd., G. W. ...	5	5	0
Furness, Withy and Co. Ltd. ...	250	0	0	Klinger, Ltd., R. ...	50	0	0
General Electric Co. Ltd. ...	150	0	0	Kuwait Oil Co. Ltd. ...	10	10	0
General Steam Navigation Co. Ltd. ...	250	0	0	Lambert Bros., Ltd. ...	100	0	0
Germ Lubricants, Ltd. ...	3	3	0	Lancashire Shipping Co. Ltd. ...	10	10	0
German and Milne ...	2	2	0	Lancaster and Tonge, Ltd. ...	10	10	0
Glen and Co. Ltd. ...	25	0	0	Larrinaga Steamship Co. Ltd. ...	25	0	0
Glen Line, Ltd. ...	1,000	0	0	Leeds and Bradford Boiler Co. Ltd. ...	1	1	0
Goole Shipbuilding and Repairing Co. Ltd. ...	25	0	0	Limmer and Trinidad Lake Asphalt Co. Ltd. ...	2	2	0
Goulandris Bros., Ltd. ...	26	5	0	Lincoln Electric Co. Ltd. ...	3	0	0
Gould's Foundries, Ltd. ...	10	10	0	Lloyd's, Corporation of ...	100	0	0
Gow, Harrison and Co. ...	25	0	0	Lloyd's Register of Shipping ...	1,000	0	0
Grand Union (Shipping), Ltd. ...	10	10	0	Lobitos Oilfields, Ltd. ...	100	0	0
Gray and Co. Ltd., William ...	100	0	0	Lockington and Co. Ltd., S. ...	2	2	0
Gray, Dawes and Co. Ltd. ...	100	0	0	Lockwood and Carlisle, Ltd. ...	10	0	0
Grayson, Rollo and Clover Docks, Ltd. ...	105	0	0	L.N.E., L.M.S., G.W. and S. Railways ...	105	0	0
Green and Silley Weir, Ltd., R. and H. ...	500	0	0	London and Rochester Trading Co. ...	20	0	0
Green and Son, Ltd., E. ...	100	0	0	London Graving Dock Co. Ltd. ...	52	10	0
Greenwell and Co. Ltd., T. W. ...	10	0	0	London Scaling Co. Ltd. ...	250	0	0
Guinness, Son and Co. Ltd., Arthur ...	25	0	0	London Shipping Orchestral Society ...	20	0	0
Gujarat—Engineers and Electricians ...	1	18	0	London Welding Co. Ltd. ...	5	5	0
Hain Steamship Co. Ltd. ...	500	0	0	Lusi, Ltd., A. ...	5	5	0
Halal Shipping Co. Ltd. ...	10	10	0	MacAndrews and Co. Ltd. ...	250	0	0
Halifax Shipyards, Ltd. ...	50	0	0	Maclay and McIntyre, Ltd. ...	100	0	0
Hall and Sons, Ltd., J. P. ...	50	0	0	Macphie and Co. Ltd., John J. ...	3	3	0
Hall, Ltd., J. and E. ...	250	0	0	Macrome, Ltd. ...	5	5	0
Hall, Russell and Co. Ltd. ...	50	0	0	Malone Instrument Co. Ltd. ...	5	5	0
Harland and Wolff, Ltd. ...	1,000	0	0				

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Manchester Dry Docks, Ltd.	105	0	0	Redgate Steamship Co. Ltd.	5	5	0
Manchester Liners, Ltd.	125	0	0	Red Hand Compositions Co.	10	0	0
Manchester Oil Refinery, Ltd.	10	10	0	Renold and Coventry Chain Co. Ltd.	10	0	0
Manganese Bronze and Brass Co. Ltd.	52	10	0	Renton and Fisher	5	5	0
Mann (Shipping), Ltd., H. G.	5	5	0	Richardsons, Westgarth and Co. Ltd.	525	0	0
Marine and Industrial Lubricants, Ltd.	26	5	0	North Eastern Marine Engineering Co. Ltd.			
Marine Instruments, Ltd.	25	0	0	George Clark, Ltd.	20	0	0
Massey and Sons, Ltd., W. A.	1	1	0	Robertson, William	20	0	0
Mather and Platt, Ltd.	10	10	0	Robinson and Sons, J.	10	0	0
Matthews, Wrightson and Co. Ltd. (3 donations)	3	3	0	Ropner and Co. Ltd., Sir R.	10	0	0
Mazagon Dock, Ltd.	100	0	0	Rotterdam Dry Dock Co. Ltd.	52	10	0
Magazon Dock, Ltd.—Staff	16	10	0	Rowhedge Ironworks Co. Ltd.	5	5	0
Medomsley Steam Shipping Co. Ltd.	5	5	0	Royal Mail Lines, Ltd. (2 donations)	250	0	0
Mercantile Dry Dock Co. Ltd.	25	0	0	Russell and Co., J.	10	10	0
Mersey Ports Stevedoring Co. Ltd.	2	2	0	Ruston and Hornsby, Ltd.	75	0	0
Metal Industries (Salvage), Ltd.	10	10	0	Rylands Bros., Ltd.	10	0	0
Metropolitan-Vickers Electrical Co. Ltd.	10	10	0				
Michalinos and Co. Ltd.	10	10	0	Salvesen and Co., Chr.	21	0	0
Middle Docks and Engineering Co. Ltd.	105	0	0	Salvesen and Co., J. T.	21	0	0
Mirrlees, Bickerton and Day, Ltd.	2	2	0	Saunders Valve Co. Ltd.	5	5	0
Mitchell, Cotts and Co.	52	10	0	Scottish Co-operative Wholesale Society	2	2	0
Modern Wheel Drive, Ltd.	10	10	0	Scott's Shipbuilding and Engineering Co. Ltd.	250	0	0
Mogul Line, Ltd.	200	0	0	Semtex, Ltd.	50	0	0
Moller Line (U.K.), Ltd.	10	10	0	Senova Transport Co. Ltd.	5	5	0
Moss and Co., H. E.	100	0	0	Shanks and Son, Ltd., Alexander	10	10	0
Moss Gear Co. Ltd.	5	5	0	Sharples Centrifuges, Ltd.	50	0	0
Moss Hutchinson Line, Ltd.	250	0	0	Shaw, Savill and Albion Co. Ltd.	100	0	0
Motor Ship	25	0	0	Sheaf Steam Shipping Co. Ltd.	100	0	0
Mountstuart Dry Docks, Ltd.	105	0	0	Ships Finance and Management Co. Ltd.	100	0	0
Mungo Campbell and Co. Ltd.	50	0	0	Silley, Cox and Co. Ltd.	250	0	0
Murray Wilson and Co., A., and Clyde Blowers, Ltd.	5	0	0	Silvertown Lubricants, Ltd.	52	10	0
				Singapore Straits Steam Ship Co. Ltd.	250	0	0
National Benzole Co. Ltd.	105	0	0	Smith and McLean, Ltd.	10	0	0
National Gas and Oil Engine Co. Ltd.	50	0	0	Smith and Sons, Ltd., Sir William Reardon	500	0	0
New Zealand Institute of Marine and Power Engineers	10	10	0	Smith's Dock Co. Ltd.	500	0	0
New Zealand Shipping Co. Ltd.	1,000	0	0	Solvolene Lubricants, Ltd.	10	10	0
Nicholson, Ltd., Edward	2	2	0	South American Saint Line, Ltd.	250	0	0
Nisbet and Co., George	30	0	0	Southend Engineering Co.	1	1	0
Niven, Nelson and Matthews, Ltd.	10	10	0	Springwell Shipping Co. Ltd.	21	0	0
Nomikos (London), Ltd.	5	5	0	Spurrier, Glazebrook and Co. Ltd.	10	10	0
Norris Warning Co. Ltd.	5	5	0	Standard Piston Ring and Engineering Co. Ltd.	5	0	0
North Shipping Co. Ltd.	100	0	0	Steam Coasters, Ltd.	5	5	0
Northern Co-operative Society, Ltd.	2	2	0	Stephen and Sons, Ltd., Alexander	105	0	0
Nourse, Ltd., James	250	0	0	Stephenson Clarke, Ltd.	105	0	0
Novocastria Shipping Co. Ltd.	5	5	0	Sternol, Ltd.	10	10	0
				Sterne and Co. Ltd., L.	100	0	0
Ocean Steam Ship Co. Ltd.	2,000	0	0	Steven and Struther, Ltd.	5	5	0
Orient Steam Navigation Co. Ltd.	1,000	0	0	Stewart and Craig, Ltd.	10	10	0
Overseas Towing and Salvage Co. Ltd.	5	5	0	Stone and Co. Ltd., J.	100	0	0
				Strick Line, Ltd.	250	0	0
Pacific Steam Navigation Co.	100	0	0	Summerson and Sons, Ltd., Thomas	2	2	0
Parsons Marine Steam Turbine Co. Ltd.	500	0	0	Superheater Co. Ltd.	25	0	0
Peninsular and Orient Steam Navigation Co.	1,000	0	0	Sutherland and Co. Ltd., B. J.	50	0	0
Permutit Co. Ltd.	10	10	0	Swan, Hunter and Wigham Richardson, Ltd.	1,000	0	0
Philip and Son, Ltd.	105	0	0	Swinney Bros., Ltd.	10	10	0
Plenty and Son, Ltd.	10	10	0	Swire and Sons, Ltd., John	50	0	0
Pollock, Sons and Co. Ltd., James	21	0	0				
Polytechnic Engineering Society	2	2	0	Tatem, Ltd., W. J.	52	10	0
Pool Shipping Co. Ltd.	10	0	0	Taylor and Hubberd, Ltd.	2	2	0
Port Line, Ltd.	500	0	0	Taylor and Sons (1937), Ltd., S. T.	10	10	0
Power Plant Co. Ltd.	52	10	0	Texas Oil Co. Ltd.	10	10	0
Price's Lubricants, Ltd.	10	10	0	Thames Welding Co. Ltd.	15	15	0
Prince of Wales Dry Dock Co. (Swansea), Ltd.	52	10	0	Thermotank, Ltd.	200	0	0
Pyrene Co. Ltd.	26	5	0	Thompson (Wolverhampton), Ltd., John	105	0	0
				Thornycroft and Co. Ltd., John I.	100	0	0
Quasi-Arc Co. Ltd.	10	10	0	Tilbury Contracting and Dredging Co. Ltd.	10	10	0
				Todd Oil Burners, Ltd.	5	5	0
Raeburn and Verel, Ltd.	25	0	0	Todd Shipyards Corporation	100	0	0
Rankin and Blackmore, Ltd.	50	0	0	Trent Maritime Co.	10	10	0
Readhead and Sons, Ltd., John	210	0	0	Trewent and Proctor, Ltd., F. J.	7	7	0
				Trinidad Leaseholds, Ltd.	10	10	0

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	£	s.	d.		£	s.	d.
Turnbull Scott Shipping Co. Ltd.	5	5	0	Wallsend Slipway and Engineering Co. Ltd. ...	500	0	0
Tyne Dock Engineering Co. Ltd.	25	0	0	Watergate Steam Shipping Co. Ltd.	10	10	0
Union Castle Mail Steam Ship Co. Ltd. ...	262	10	0	Weir, Ltd., G. and J.	500	0	0
Union Steam Ship Co. of New Zealand, Ltd. ...	210	0	0	Wexford Steamships Co. Ltd.	2	2	0
United Africa Co. Ltd.	250	0	0	Wharton (Shipping), Ltd., J.	5	0	0
United Baltic Corporation, Ltd.	250	0	0	White and Co. Ltd., J. Samuel	210	0	0
United States Metallic Packing Co. Ltd. ...	50	0	0	Wilson and Kyle, Ltd.	50	0	0
Universal Welding and Construction Co. ...	10	10	0	Wilson Bros. (Pipe Fittings), Ltd.	3	0	0
Vacuum Oil Co. Ltd.	50	0	0	Wilton's Engineering and Slipway Co. ...	52	10	0
Vickers and Sons, Ltd., B. R.	5	5	0	Winsor Engineering Co. Ltd.	5	5	0
Vickers-Armstrongs, Ltd.	1,000	0	0	Wiseman and Co. Ltd., Alfred	5	5	0
Wailes Dove Bitumastic, Ltd.	105	0	0	Wood and Clark, Ltd.	1	1	0
Wakefield and Co. Ltd., C. C.	52	10	0	Worthington-Simpson, Ltd.	100	0	0
Walker and Co. Ltd., James	5	5	0	Yarrow and Co. Ltd.	105	0	0
				Yarrows, Ltd.	5	0	0
				Yorkshire Copper Works, Ltd.	100	0	0

Subscribers at 31st March 1949—List B

	£	s.	d.		£	s.	d.
Adamson, W. W.	1	1	0	Beavin, E. A.	10	6	
Aitchison, T. E.	1	0	0	Beavis, R. C. (3 donations)	3	3	0
Aitken, M. B.	2	2	0	Beckett, F. O.	2	0	0
Akman, O. M.	1	0	0	Bedward, K.	1	0	0
Al Arabi, M. A. I.	10	0	0	Beeken, D. W.	1	0	0
Allen, G. H. (3 donations)	7	13	0	Bell, F. P.	5	5	0
Allen, R. B.	3	3	0	Bell, J. S.	3	3	0
Allen, W. F.	2	0	0	Bennett, A. M.	2	2	0
Altham, G.	10	0	0	Bennett, C. H.	5	0	0
Alton, W. A.	5	5	0	Bennett, J. C.	1	1	0
Anderson, S. A.	5	0	0	Bennett, T. A. (4 donations)	4	0	0
Angel, W. B.	1	1	0	Bergner, A. E.	12	0	0
Anning, W. B.	2	2	0	Berlie, R.	10	6	
Anonymous donors	47	0	6	Berry, R. B.	10	0	
Argyros, A. M.	2	2	0	Best, L. C.	10	0	
Armer, A.	1	0	0	Biles, E. J.	10	0	
Armstrong, H.	2	2	0	Binmore, J. M.	2	2	0
Arrowsmith, B. P.	5	5	0	Bird, A.	10	6	
Arthur, T. L.	2	0	0	Birdwood, C. T.	1	1	0
Ashby, F. C.	1	1	0	Birnie, O. H. L. (2 donations)	2	0	0
Ashley, W. C. C.	5	0	0	Bisset, Lieut.(E), J., R.N.R.	1	0	0
Atkinson, H.	5	0	0	Bjorck, C. E.	10	6	
Atkinson, S.	1	1	0	Black, H.	2	2	0
Atkinson, T.	2	0	0	Blackburn, N. P.	2	2	0
Atkinson, W. A. F.	1	1	0	Blackburn, R.	1	1	0
Austin, J.	10	10	0	Blackman, B. N.	10	0	
Aziz, G. F.	1	0	0	Blakely, G. (2 donations)	4	10	0
Back, V. W.	10	0	0	Blood, T. H.	1	10	0
Bailey, W. H.	1	0	0	Blowers, W.	1	0	0
Bainbridge, R. G.	1	0	0	Blue, W. B. T.	5	5	0
Baird, W. G.	1	0	0	Boothroyde, F. (2 donations)	2	12	6
Balfour, P. F.	1	1	0	Booty, Mr. and Mrs. E. J.	2	2	0
Barclay, T. H.	2	2	0	Bourne, F.	5	0	0
Barker, L. P.	1	1	0	Bowen-Evans, Lt.-Com'r(E), H. P., R.N. ...	2	2	0
Barlow, R. C.	10	0	0	Bowie, S.	2	2	0
Barnes, G. W.	1	1	0	Bowman, J.	1	1	0
Barnett, H.	2	12	6	Bowtell, A. E.	1	0	0
Baron, R. B.	2	2	0	Boyce, H. M.	10	6	
Barr, H.	5	0	0	Boyle, Eng. Com'r A. H., D.S.C., R.N. ...	5	5	0
Barr, J. L.	1	1	0	Bradley, W.	1	1	0
Barr, W. H.	5	0	0	Brand, J. W.	5	0	0
Barrie, P.	1	0	0	Brettell, W. G.	6	6	0
Bateman, B.	2	2	0	Brooks, E. H.	8	8	0
Bates, F. A.	2	2	0	Brown, C. H. W.	10	10	0
Baxter, R. A.	3	0	0	Brown, F. T. (2 donations)	7	10	0
Beadle, J.	10	0	0	Brown, Rear-Admiral(E) G. H. H., C.B.E., and J. P. H. Brown	5	0	0

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Brown, Eng. Vice-Admiral Sir Harold A., G.B.E., K.C.B. ...	5	0	0	Cowan, G. ...	1	1	0
Brown, W. V. ...	1	1	0	Cowan, R. S. ...	10	0	0
Bruce, D. ...	10	6		Cowe, H. A. ...	1	1	0
Bruty, Lieut.(E) W. G., M.B.E., R.N. ...	1	1	0	Cowper, J. ...	2	2	0
Buck, A. E. ...	5	0	0	Craggs, G. F. ...			11
Buckley, J. ...	1	0	0	Craggs, T. S. ...	1	1	0
Buddle, J. ...	2	0	0	Crane, C. ...	1	1	0
Bunn, J. C. ...	1	1	0	Crighton, A. E. ...	5	5	0
Burgess, A. D. ...	1	1	0	Crighton, J. ...	15	15	0
Burgis, F. M. ...	5	5	0	Crighton, J., Jr. ...	10	10	0
Burnham, G. ...	2	2	0	Cromey, W. R. ...	1	1	0
Burrage, E. E. ...	5	0	0	Crompton, T. A. ...	105	0	0
Busby, L. H. ...	5	0	0	Crompton, T. M. ...	2	2	0
Butler, R. ...	1	5	0	Crosbie, W. L. ...	1	0	0
Buttery, W. R. ...	2	2	0	Cross, F. ...	2	7	6
				Cross-Rudkin, F. W. ...			10
				Crossley, D. P. ...			10
Cady, E. N. ...	1	0	0	Cubitt, J. C. ...	1	0	0
Cain, T. K. ...	1	7	6	Curling, B. C. ...	5	5	0
Cameron, J. H. ...	5	0	0				
Cameron, J. V. ...	5	0	0	Daintith, H. ...	1	1	0
Cameron, J. W. ...	3	3	0	Dalrymple, W. ...	1	1	0
Campbell, A. ...	1	1	0	Daniels, C. E. ...	1	1	0
Campbell, J. P. ...	10	10	0	D'Arcy, Capt.(E) N. J. H., R.N. ...	2	2	0
Cant, A. J. ...	1	1	0	Davidson, A. ...			10
Carnie, J. ...	1	1	0	Davidson, J. H., O.B.E. (2 donations) ...	6	1	0
Carrick, P. ...	10	0	0	Davies, A. J. A. ...			10
Carson, W. D. ...	3	3	0	Davies, F. S. ...	2	0	0
Carswell, D. B., O.B.E. ...	25	0	0	Davies, W. G. ...	5	0	0
Carter, A. ...	3	3	0	Davis, G. ...	2	2	0
Carter, H. D. ...	3	0	0	Davis, J. R. ...	2	2	0
Carter, J. R. ...	1	0	0	Davis, L. C. ...	2	2	0
Cassels, G. C. ...	2	0	0	Davis, R. C. ...	5	0	0
Cavan, G. ...	1	1	0	Dean, N. ...	1	1	0
Chaloner, J. L. ...	10	10	0	Deans, R. ...	2	0	0
Chamberlain, E. R. ...	3	3	0	Delo, W. E. W. ...	1	0	0
Chamberlain, J. H. ...	2	0	0	Denny, J. ...	2	2	0
Chandler, W. J. ...	5	0	0	Denny, W. ...	10	0	0
Chapman, C. ...	1	0	0	Derbyshire, Lieut.(E) C. J. C., M.B.E., R.N. ...	3	0	0
Chapman, H. ...	2	2	0	Dick, W. ...	2	2	0
Chenery, F. J. ...	2	2	0	Dicker, E. ...	1	1	0
Chiverton, A. H. V. ...	1	0	0	Dickerson, T. ...	2	0	0
Christensen, S. G. ...	1	1	0	Dickson, A. A. S. ...	2	0	0
Christianson, W. A. ...	10	10	0	Dight, Eng. Rear-Admiral S. R., C.B.E. ...	20	0	0
Christie, J. G. ...	5	0	0	Dobbs, A. G. ...	3	3	0
Christie, K. ...	2	2	0	Dodd, E. B. ...	2	2	0
Church, J. E. ...	5	5	0	Doig, M. ...	5	0	0
Clark, A. W. ...	1	1	0	Doling, R. ...	1	0	0
Clark, J. ...	1	0	0	Donaldson, W. ...	2	2	0
Clark, J. ...	5	0	0	Dorey, Dr. S. F., C.B.E., F.R.S. ...	25	0	0
Clark, J. ...	2	2	0	Dowle, E. H. ...	1	0	0
Clarke, J. D. ...	2	0	0	Downie, Major F., C.B.E. ...	1	1	0
Clarke, R. T. ...	10	10	0	Drake, D. C. ...			10
Clayton, H. R. ...	2	2	0	Duncan, J. ...	1	0	0
Cleworth, H. B. ...	1	0	0	Dunlop, S. H. ...	2	0	0
Clifton, R. H. ...	1	1	0	Dunn, J. L. ...	5	0	0
Clough, E. ...	5	0	0	Dunn, W. ...	4	4	0
Coates, J. L., O.B.E. (3 donations) ...	1	11	0	Dunshea, R. M. ...	1	0	0
Cobb, W. S. ...	1	1	0				
Cochrane, D. ...	1	1	0	Eamey, Lieut.(E) R. W., M.B.E., D.S.C., R.N. ...	5	0	0
Coia, G. J. ...	3	0	0	East, A. S. ...	1	0	0
Cole, T. E. ...	10	0		Edgar, R. ...	2	0	0
Colling, W. ...	1	1	0	Edmiston, J. G. ...	5	5	0
Colvill, F. J. ...	3	3	0	Edwards, S. W. ...	1	0	0
Combella, E. P. ...	1	1	0	Eighteen, H. J. ...			11
Connell, Lieut. Com'r(E) D. M., R.N. ...	2	2	0	Elderton, A. J. ...	5	0	0
Cook, J. F. ...	1	1	0	Elgood, J. O. S. ...	2	0	0
Cookson, F. R. C. ...	2	2	0	Ellis, E. ...	1	1	0
Cordingley, Eng. Lieut. J., R.N.(ret) ...	2	2	0	Elordieta, V. ...			10
Corner, Lieut.(E) W. R., M.B.E., R.N. ...	2	0	0	Emery, A. ...	1	19	5
Coulthard, H. ...	2	2	0	English, T. C. ...	2	2	0
Coulthard, J. W. ...	10	10	0	Esdon, D. S. ...	2	2	0

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	£	s.	d.		£	s.	d.
Espin, W. L.	1	0	0	Grant, W. C. (2 donations)...	5	5	0
Evans, W. J.	1	0	0	Graves, J. H.	5	0	0
Ewart, W. D. (2 donations)	4	16	0	Gray, G. T.	2	2	0
				Gray, T.	1	0	0
Fairley, F. F.	1	1	0	Green, E. L.	2	0	0
Fairweather, R.	1	0	0	Green, J. E.	5	0	0
Farmer, J. D., O.B.E.	10	0	0	Green, W. H.	3	3	0
Fawcett, F. A.	1	1	0	Gregson, Major W.	10	10	0
Ferguson, G.... ..	1	1	0	Grey, R. B.	5	5	0
Ferguson, J. A.	2	10	0	Grieve, J. H.	2	2	0
Ferguson, L. J.	5	5	0	Grieve, W.	2	2	0
Ferrier, H. G.	5	5	0	Groom, R. W.	10	10	0
Fielden, B. P.	10	10	0	Groundwater, J. R.	2	7	2
Filshie, G.	5	0	0	Groves, A. N.	2	2	0
Findlay, D. N.	2	0	0	Guerin, W. R.	10	0	0
Findlay, J.	5	0	0				
Firth, Capt. G. T., M.B.E.	1	0	0	Haddy, Eng. Rear-Admiral F. G. (ret)	1	1	0
Fisher, G. F.	1	0	0	Hadlow, C. N.	1	1	0
Fishwick, J. T.	2	0	0	Hagan, A. N.	2	12	6
Fleming, J.	1	1	0	Hair, D., M.B.E.	2	2	0
Fleming, S. W. C.	1	0	0	Haldane, I.	1	1	0
Flenk, H. A.	1	7	6	Hall, H. G.	2	2	0
Fletcher, A.	5	5	0	Hall, H. J.	1	1	0
Fletcher, H. E.	5	5	0	Hall, J. D.	1	1	0
Flood, C. J. M.	5	5	0	Halliday, J. F.	1	1	0
Flood, E. C.	1	1	0	Halls, G.	1	1	0
Fogg, R. C.	1	1	0	Hamilton, J. P.	2	2	0
Foggin, G.	1	0	0	Hamilton-Smith, A.	10	0	0
Ford, E. D.	2	2	0	Hammond, C.	2	2	0
Foreman, W. J. L.	1	1	0	Hammond, S. W.	1	1	0
Forsyth, Dr. G. H.	5	0	0	Handley, C. E.	5	5	0
Forsyth, R. G.	3	0	0	Hanna, A.	1	0	0
Fowler, J.	1	1	0	Hardacre, F. S.	10	6	0
Fowler, W. E. B.	1	1	0	Harding, A. J., O.B.E.	3	3	0
Fox, W. J.	1	1	0	Harding, R. W.	2	2	0
Freeman, S. B., C.B.E.	5	5	0	Hardy, A. C.... ..	10	10	0
French, R. D.	1	1	0	Hardy, J.	1	1	0
Friend, C. N.	2	2	0	Harnley, J.	18	0	0
Frost, J.	2	2	0	Harold, Eng. Com'r H. F., R.N.(ret)	5	0	0
Fulford, L. J.	2	2	0	Harris, C. G.	2	2	0
				Harris, D. J.	2	2	0
Gair, A. R.	5	5	0	Harris, J. E. F.	2	0	0
Galley, J. N. (2 donations)	1	8	6	Harris, W. E.	1	0	0
Gambles, C. C.	2	2	0	Harrison, D. M.	1	0	0
Gander, F. S.	1	1	0	Harrison, S. J.	2	2	0
Gandy, F. B.... ..	20	0	0	Harrison, S. B.	1	1	0
Gardner, H. A.	2	2	0	Harrower, E.	5	0	0
Gardner, R.	5	5	0	Harvey, A.	2	2	0
Garratt, E. C.	5	0	0	Harvey, G. C.	1	1	0
Geddes, A. S.	1	7	6	Harvey, Mrs. J. A.	2	2	0
George, W. R.	1	1	0	Harvey, J. B.	5	5	0
Gerard, A. J. (2 donations)	4	4	0	Hawkins, R. F.	1	1	0
Gerrard, H.	1	1	0	Hay, C.	1	1	0
Gibson, A. C.	2	0	0	Hayward, S. G.	10	10	0
Giles, H. J. G.	5	0	0	Hearnden, H. E.	2	2	0
Gill, F. B.	1	15	0	Heck, W. D.	5	5	0
Gillies, W.	8	9		Hedworth, W. A.	1	1	0
Gillies, W. D. W.	1	1	0	Helyer, R. L., D.S.C.	2	2	0
Giordan, Comm'd Eng. A. L., D.S.C., R.N. (2 donations)	2	17	9	Henderson, J. M. (2 donations)	2	1	0
Giorgio, J.	1	0	0	Henriques, W. Q., O.B.E.	10	10	0
Girdler, A. C.	1	1	0	Heppell, J. D.	1	1	0
Girdwood, J. F.	10	0	0	Hepton, M. F.	1	1	0
Given, Capt. J. G. C., C.B.E., R.N.	2	2	0	Herbert, C. W.	10	6	0
Glass, W. J. S.	4	0	0	Heron, W. M.	2	9	0
Golightly, G. T.	1	1	0	Herriot, J. C.	5	5	0
Gooder, A. C.	1	1	0	Heys, E.	10	6	0
Gordon, F.	2	7	2	Hibble, Lieut. Com'r(E) W. G., R.N.V.R.	10	6	0
Gow, D. F.	2	2	0	Hicks, W. F.	1	1	0
Graham, Eng. Capt. W. A., O.B.E.	10	0	0	Hillier, H., O.B.E.	5	5	0
Graham, W. (2 donations)	1	8	0	Hindmarch, T.	10	0	0
Grange, G. R.	5	0	0	Hoare, A.	3	3	0
				Hoare, J. H.	5	0	0

The Marine Engineers' National War Memorial Building Fund

					£	s.	d.						£	s.	d.
Hodgson, M. J.	...	...	...	...	5	0	0	Kingcome, Eng. Vice-Admiral Sir J., K.C.B.	...	...	...	10	10	0
Hogan, D. G.	...	...	...	...	1	7	0	Kirby, W. H.	...	...	...	1	5	0
Hogg, R. S.	...	...	...	...	3	3	0	Kirstein, I. (2 donations)	...	...	...	20	0	0
Holdforth, A. E.	...	...	...	...	1	0	0	Kitching, G. W.	...	...	...	10	10	0
Holker, J.	...	...	...	...	1	8	0	Knap, H.	...	...	...	5	5	0
Holland, R. L.	...	...	...	...	10	10	0	Knipe, W. D.	...	...	...	1	1	0
Holm, H. H.	...	...	...	...	5	0	0	Knowles, T. W. G.	...	...	...	10	0	0
Holroyde, J. B.	...	...	...	...	2	0	0	Kode, J.	...	...	...	1	1	0
Hook, R. J.	...	...	...	...	1	1	0	Lacey, R. C.	...	...	...	10	0	0
Hoppner, R.	...	...	...	...	4	0	0	Laidlaw, A. H. (2 donations)	...	...	...	10	10	0
Horton, J. C. V.	...	...	...	...	3	3	0	Lamb, D. P.	...	...	...	2	2	0
Hosking, H. H.	...	...	...	...	10	6		Lamb, J., O.B.E.	...	...	...	5	0	0
Hough, H.	...	...	...	...	1	0	0	Lambert, E. A.	...	...	...	3	3	0
Hounsell, H.	...	...	...	...	1	2	0	Lang, W. V.	...	...	...	2	2	0
Houston, J.	...	...	...	...	5	0	0	Larsen, W. L.	...	...	...	10	6	
Houston, W. C.	...	...	...	...	5	0	0	Larter, F. A.	...	...	...	10	10	0
Howard-Mercer, Com'r(E) L. J. F., R.N.	...	...	...	...	1	6	3	Laverty, J.	...	...	...	2	0	0
Howe, L. H.	...	...	...	...	1	6	3	Lawrie, P.	...	...	...	2	2	0
Howell, T. H.	...	...	...	...	5	0	0	Lawson, J. W.	...	...	...	5	5	0
Hudson, C.	...	...	...	...	5	5	0	Leggat, W. A.	...	...	...	5	0	0
Hughes, J. B.	...	...	...	...	1	12	6	Legh-Jones, G.	...	...	...	5	5	0
Humphreys, H. S.	...	...	...	...	5	5	0	Leigh, L. C.	...	...	...	10	6	
Hunter, W. P.	...	...	...	...	2	2	0	Lewer, L. J.	...	...	...	6	0	0
Hussey, R. M.	...	...	...	...	1	1	0	Ling, R. J. K.	...	...	...	10	6	
Imray, W. N.	...	...	...	...	2	7	6	Liston, A. G., M.B.E.	...	...	...	3	3	0
Inches, R. M.	...	...	...	...	2	2	0	Littlewood, Capt.(E) C., O.B.E., R.N.	...	...	...	1	0	0
Inglis, J. D.	...	...	...	...	25	0	0	Llewellyn, R. J.	...	...	...	10	0	0
Ingram, Com'r(E) L. F., R.N.	...	...	...	...	1	1	0	Loader, E. J.	...	...	...	5	0	0
Ireland, W. G. (2 donations)	...	...	...	...	1	0	0	Logan, R. M.	...	...	...	2	4	11
Irving, E. T.	...	...	...	...	2	2	0	Logie, J.	...	...	...	3	3	0
Irwin, D. W.	...	...	...	...	1	0	0	Lowes, R. H.	...	...	...	1	1	0
Isdale, Capt. J., D.S.C.	...	...	...	...	5	0	0	Lowrie, J. C.	...	...	...	21	0	0
Ismay, T.	...	...	...	...	10	0	0	Lund, B.	...	...	...	1	1	0
Jack, J. W. A.	...	...	...	...	5	0	0	MacAdam, R.	...	...	...	5	0	0
Jackson, C.	...	...	...	...	2	2	0	MacCallum, J.	...	...	...	1	0	0
Jackson, R.	...	...	...	...	2	2	0	MacColl, H. F.	...	...	...	2	2	0
Jackson, W. G.	...	...	...	...	1	0	0	Macfarlane, F. A.	...	...	...	15	0	0
Jacques, C. L.	...	...	...	...	1	1	0	Mackenzie, J.	...	...	...	5	0	0
Jenkins, D.	...	...	...	...	5	5	0	Mackinlay, J. H.	...	...	...	2	0	0
Jennings, F.	...	...	...	...	1	1	0	Mackinnon-Pearson, I.	...	...	...	5	5	0
Jennings, W. M.	...	...	...	...	2	2	0	Macleod, J.	...	...	...	2	0	0
Jewitt, D. E.	...	...	...	...	3	3	0	Macleod, N. A.	...	...	...	1	1	0
Johnson, J.	...	...	...	...	5	5	0	Macleod, R. M.	...	...	...	2	2	0
Johnson, T. F. (4 donations)	...	...	...	...	2	4	6	Macmillan, M. A.	...	...	...	2	10	0
Johnstone, O.	...	...	...	...	5	5	0	Macniven, H.	...	...	...	1	1	0
Joiner, A. D.	...	...	...	...	5	5	0	Mactavish, J. A.	...	...	...	1	0	0
Jones, A.	...	...	...	...	1	1	0	McAlpine, R.	...	...	...	1	0	0
Jones, C. F.	...	...	...	...	2	2	0	McAuslan, D. F.	...	...	...	1	0	0
Jones, C. H.	...	...	...	...	1	0	0	McAuslan, W., I.S.O.	...	...	...	5	0	0
Jones, D. R.	...	...	...	...	1	0	0	McCleave, P. R.	...	...	...	5	0	0
Jones, F. M.	...	...	...	...	2	2	0	McColl, K. G.	...	...	...	5	0	0
Jones, H. S.	...	...	...	...	2	2	0	McConnell, W. E.	...	...	...	5	5	0
Jones, J. I.	...	...	...	...	10	0	0	McCormick, A. P.	...	...	...	5	5	0
Jordan, H. J.	...	...	...	...	16	0	0	McCreery, R. W.	...	...	...	5	0	0
Kay, R. C.	...	...	...	...	7	10		McDonald, D.	...	...	...	1	0	0
Keay, J., M.B.E. (3 donations)	...	...	...	...	2	0	0	McDougall, A.	...	...	...	5	0	0
Keith, A. M.	...	...	...	...	1	0	0	McGregor, P.	...	...	...	1	0	0
Kelsey, S.	...	...	...	...	5	5	0	McJannet, R. C.	...	...	...	2	0	0
Kendrick, R.	...	...	...	...	2	2	0	McKay, G. R.	...	...	...	1	0	0
Kennedy, A. C.	...	...	...	...	1	1	0	McKay, L.	...	...	...	1	0	0
Kennedy, D. S.	...	...	...	...	2	0	0	McKenzie, J. A.	...	...	...	5	0	0
Kennedy, P.	...	...	...	...	1	1	0	McKenzie, W. C.	...	...	...	10	10	0
Kenward, R. A.	...	...	...	...	20	0	0	McLachlan, W. O.	...	...	...	2	2	0
Keppie, G. B.	...	...	...	...	1	1	0	McLaughlin, B. A.	...	...	...	1	0	0
Kerridge, W. W. (2 donations)	...	...	...	...	10	0	0	McLaughlin, W.	...	...	...	12	0	0
Key, F. F.	...	...	...	...	1	0	0	McMaster, E.	...	...	...	5	0	0
Keymer, A. R.	...	...	...	...	10	10	0	McNeil, J. H.	...	...	...	1	0	0
Kinder, R. N.	...	...	...	...	1	1	0	McPherson, R. G.	...	...	...	2	2	0
King, F. V.	...	...	...	...	5	5	0	Maddocks, K.	...	...	...	1	1	0
								Magill, R.	...	...	...	5	0	0

Annual Report

	£	s.	d.		£	s.	d.
Mansfield, H. F.	2	2	0	Onyon, Eng. Capt. W., M.V.O., R.N.(ret) (2 dona-	8	3	0
Markes, J. E.	1	1	0	tions)	1	0	0
Markes, J. W....	1	1	0	Otsing, G.	3	3	0
Marsh, K. H.	5	0	0	Owens, P. R.	1	1	0
Marsh-Jones, D. S.	10	6	0	Oxton, D. T....	2	2	0
Martin, A.	5	0	0	Palmer, J. E.	2	2	0
Mason, W. A.	5	0	0	Palmer, R. P.	2	2	0
Mather, A. H.	10	10	0	Pappius, Sub. Lt.(E) S. W., P.N.	2	0	0
Mattison, S. M.	3	0	0	Parker, E. H.	50	0	0
Mauger, R. L.	5	0	0	Parker, H. A.	10	10	0
Maundrell, H. B. H....	10	0	0	Parker, J. B.	10	0	0
Mees, E. E.	75	0	0	Parker, M. W. E.	2	0	0
Mellor, W.	10	0	0	Parnell, C. S....	1	8	0
Merrick, R. H.	5	5	0	Parry, E. U.	2	2	0
Millar, P.	2	2	0	Parsons, E. D.	10	0	0
Miller, G. W. H.	2	0	0	Parsons, J. T.	3	3	0
Miller, L.	2	2	0	Parsons R. W.	7	6	0
Miller, W. A.	2	0	0	Paszyc, A.	1	1	0
Mitchell, J. C.	1	1	0	Patrawala, J. A.	5	0	0
Mitchell, J. E.	3	3	0	Patterson, G.	1	7	6
Mitchell, R. J.	2	0	6	Paul, A.	5	5	0
Moffatt, C.	2	2	0	Payne, J. E. M. (3 donations)	5	5	0
Moloney, Eng. Capt. J. E., C.I.E., R.I.N.(ret)	3	3	0	Peacock, J.	5	5	0
Montgomery, H. L.	1	0	0	Pearson, G. H.	1	1	0
Moore, A.	5	0	0	Peck, F. H.	2	2	0
Moore, B.	1	0	0	Peebles, A.	1	1	0
Moran, R. B.	1	0	0	Pemberton, E.	10	6	0
More, G.	2	0	0	Pennell, D.	1	1	0
Morgan, J. H.	1	9	0	Perkins, J. N.	1	1	0
Morrison, H. T.	1	1	0	Peterson, A. S.	2	0	0
Morrison, T. S.	10	10	0	Pigott, S. T.	3	3	0
Morton, J.	1	1	0	Pinches, H. E.	1	0	0
Morton, J. R.	2	2	0	Pinkney, R. B.	5	5	0
Morton, T.	5	0	0	Pinnock, W. T.	2	2	0
Mosey, H. Y.	10	10	0	Piper, Lieut.(E) J. J., D.S.C., R.N.	1	0	0
Mosey, J. Y.	10	10	0	Plastow, E. C.	1	0	0
Muckle, W. P.	10	6	0	Pobes, J.	10	0	0
Muir, J. M. (3 donations)	2	0	6	Porn, M.	25	0	0
Munby, M. A.	1	0	0	Postlethwaite, W. E....	1	1	0
Mundie, J. D. B.	2	0	0	Potts, V.	2	2	0
Murray, G.	1	1	6	Powrie, R. P....	1	1	0
Murray, J. L.	1	1	0	Pratt, J. A.	10	0	0
Murray, R. M.	2	2	0	Preshaw, R. A.	5	0	0
Murrison, A. R.	1	1	0	Press, W. J.	2	2	0
Musker, H.	1	1	0	Preston, J. J.	3	0	0
Mussett, G. A.	2	2	0	Pritchard, Mrs. D. G.	2	2	0
Nailer, D. N....	1	1	0	Probert, R. C.	2	2	0
Neill, F. G.	2	2	0	Procacci, G.	2	0	0
Nevill, J. H.	5	5	0	Procter, R. H.	5	5	0
Newall, R.	1	0	0	Pugh, Com'r(E) F. H., O.B.E., R.N.	2	0	0
Newell, R.	5	5	0	Purves, Lieut. Com'r(E) F. W., R.A.N.	1	1	0
Newell, W. S.	25	0	0	Quarrell, A. P.	5	0	0
Newton, H.	10	0	0	Quayle, J.	1	1	0
Nicholas, E. A. L.	1	1	0	Rabbidge, W. F.	3	3	0
Nicholson, D. H.	20	0	0	Ramsey, J. W.	5	5	0
Nicholson, J. S.	5	0	0	Ramsden, J. S.	10	0	0
Nicholson, T. L.	5	5	0	Rawlings, P. H.	2	0	0
Nicol, K.	1	0	0	Rea, P. K.	5	0	0
Nicolson, A.	1	1	0	Reed, A. H. B.	1	1	0
Niven, W. J.	10	10	0	Reed, J. J.	10	6	0
Noake, Eng. Capt. L. C. S., R.N.	5	0	0	Reed, N. H.	2	2	0
Noel, T. H.	5	0	0	Reid, A. N.	3	3	0
Norledge, G. V.	3	3	0	Reilly, J. B.	3	0	0
Norman, H. H.	2	2	0	Renaut, F. W.	5	0	0
O'Neill, Eng. Lt. Com'r G. A., R.N.(ret)	3	3	0	Rendle, W. F.	1	0	0
O'Shea, J. C....	5	5	0	Reynolds, A. C.	2	2	0
O'Sullivan, J. V.	1	0	0	Rhynas, J. A.	21	0	0
Oates, A.	1	0	0	Richardson, Lieut.(E) W. A., E.M.S.	1	1	0
Oddy, F. W.	5	0	0	Richmond, Sir J. R., K.B.E.	500	0	0
Oliver, J. T.	2	2	0				

The Marine Engineers' National War Memorial Building Fund

	£	s.	d.		£	s.	d.
Riddell, A. R.	1	1	0	Smith, R.	5	0	0
Ridley, H.		5	0	Smith, R. V.	1	1	0
Ridley, J. J.	2	2	0	Smith, S.	1	0	0
Ringshaw, H.	5	0	0	Smith, S. A.	10	0	0
Rischmiller, G. L.	2	2	0	Snowdon, J. B.	1	1	0
Ritchie, C. (3 donations)	6	9	11	Soanes, E. G. (2 donations)	6	16	0
Ritchie, F. G. (2 donations)	30	10	0	Somerville, E. H.	4	0	0
Robb, F.	5	0	0	Souchotte, E. (2 donations)	5	0	0
Robb, J. L.	1	0	0	Soutar, G.	1	1	0
Roberts, J.	10	0	0	Spanner, E. F., R.C.N.C.(ret)	10	0	0
Roberts, T. M.	2	2	0	Spearpoint, H. T.	5	5	0
Robertson, A., C.C.	100	0	0	Speirs, J.	1	1	0
Robertson, Miss D.	5	0	0	Stables, D. B.	1	1	0
Robertson, T. (2 donations)	2	10	0	Steel, W. H.	1	0	0
Robins, C. R.	2	13	10	Steele, J. E.	1	1	0
Robinson, D.	5	0	0	Steele, Eng. Com'r W. R., R.D., R.N.R.	5	5	0
Robinson, E.	1	1	0	Steele, Mrs. W. R.	2	12	0
Robinson, E. F. B.	10	0	0	Stephen, J. G.	5	0	0
Robinson, M.	1	0	0	Stephens, E. R.	1	1	0
Robson, T. W.	3	3	0	Stephenson, B. (2 donations)	15	15	0
Rodgers, W.		10	0	Steven, W. L.	1	1	0
Roffey, C. E.	10	10	0	Stevenson, R. A.	2	2	0
Ronald, W.	1	0	0	Stewart, Sir Frederick C.	200	0	0
Rooks, G.	5	5	0	Stirling, R.	10	0	0
Roper, F. W.	2	2	0	Stokoe, C. L.	5	5	0
Rorison, D. G.	5	0	0	Storey, A. N.	5	10	6
Rose, F. H.	1	0	0	Strang, J. W.	2	2	0
Ross, D. F.	5	5	0	Stuart, J. B.	2	0	0
Ross, L.	5	0	0	Stubbs, J.	5	0	0
Rotter, J.	5	0	0	Stutchbury, R. S.	12	6	0
Rouse, F. J.	1	1	0	Studd, C.	1	1	0
Routledge, J. (2 donations)	5	0	0	Swinburne, A. H.	5	0	0
Rowe, R. H.	2	0	0				
Roy, L.	5	0	0	Talbot, F. B.	1	1	0
Russell, H.	10	0	0	Taylor, G.	5	5	0
Ryland, W. H.	1	1	0	Taylor, G.	5	0	0
				Taylor, H.	10	0	0
St. Jorre, G. de	1	1	0	Taylor, H. H.	2	0	0
Sakala, V.	1	1	0	Taylor, H. T.	10	0	0
Sampson, W.	5	0	0	Taylor, H. W.	3	3	0
Samson, C.	1	1	0	Taylor, J. H.	10	0	0
Samuels, H. A.	1	0	0	Taylor, J. H.	1	11	6
Sanderson, T. W.	5	5	0	Taylor, J. McFarlane	5	0	0
Sandilands, A.	1	0	0	Taylor, J. W.	3	0	0
Saunders, K. A.	5	5	0	Teasdale, J. J.	2	2	0
Sawdy, Lieut. Com'r(E) E. J., M.B.E., R.N.	2	2	6	Teasdale, L.	1	1	0
Schwerenski, J.	2	17	0	Temple, J. L. V.	5	5	0
Scorer, P.	3	3	0	Terry, G. W.	5	5	0
Scott, C. M.	5	5	0	Thomas, A. D. (2 donations)	1	0	0
Scott, F. S.	10	6	0	Thomas, I. J.	5	5	0
Scott, S.	10	0	0	Thomas, S.	7	6	0
Scullard, G. T. B.	10	6	0	Thompson, G. F.	1	1	0
Seager, Sir Leighton, C.B.E., D.L., J.P.	10	10	0	Thompson, H. G.	5	0	0
Seales, G.	18	0	0	Thompson, R.	5	0	0
Sears, A. W.	5	0	0	Thomson, A.	2	2	0
Sephton, W.	10	6	0	Thomson, E. A.	10	10	0
Shannon, T.	10	0	0	Thomson, J.	5	0	0
Shapley, F.	2	2	0	Thomson, J. B.	1	1	0
Shaw, A. R.	5	0	0	Thomson, J. P.	5	0	0
Shrubsall, H. P.	1	1	0	Thornburn, K. C.	1	1	0
Shutt, H. J.	10	6	0	Timpson, A. F. C., M.B.E.	21	0	0
Sidell, L. A. W.	1	0	0	Tomlinson, W.	7	6	0
Simmons, A.	1	1	0	Tonkin, B. C.	1	1	0
Simpson, J.	1	1	0	Torrie, J. P.	1	1	0
Sims, P. J.	2	2	0	Trail, A. J.	5	5	0
Small, J.	3	0	0	Traill, J. H. D.	2	2	0
Smart-Dalgleish, J. G. C.	2	2	0	Train, J. T.	1	1	0
Smeaton, R., O.B.E.	10	10	0	Trenoweth, Eng. Com'r S. B., R.I.N.(ret)	2	2	0
Smethurst, J. M.	1	1	0	Triolo, E.	5	0	0
Smith, Eng. Com'r D. Hastie, R.N.(ret)	2	2	0	Trotter, S.	2	0	0
Smith, F. A.	2	7	0	Turnbull, G. M.	5	5	0
Smith, G. F.	2	0	0	Turnbull, J., O.B.E.	3	3	0
Smith, J. L.	2	2	0	Turner, F. L.	1	0	0

Annual Report

	£	s.	d.			£	s.	d.
Turner, Eng. Vice-Admiral Sir F. R. G., K.C.B., O.B.E. (ret)	5	5	0		Whayman, Eng. Rear-Admiral W. M., C.B., C.B.E.(ret)	5	5	0
Turner, G. H.	1	1	0		Wheadon, H. J.	5	0	0
Turner, J. H.... ..	2	2	0		White, J.	2	0	0
Turner, N.	1	0	0		White, N.	2	2	0
					White, P. J.			12 6
Vanston, J. J.	50	0	0		Whiteley, C. W.	1	1	0
Vella, D.	3	0	0		Whitty, S. B.... ..			10 0
Vickerstaff, H.	3	0	0		Whyte, S.	1	1	0
Vitt, G.	3	3	0		Wiggins, W. E.	3	3	0
Vogan, R. J.	2	7	6		Wilkins, V.	5	5	0
					Wilkinson, B. A.	1	0	0
Walker, A. J.... ..	1	1	0		Willcocks, J. D.	1	0	0
Walker, F.	2	2	0		Williams, D. A. S.	5	5	0
Walker, G. W.	1	1	0		Williams, H. D.	5	0	0
Walker, H. H. R.	5	0	0		Williams, M. D. E.	5	0	0
Walker, J. I.	1	1	0		Williams, N.			8 5
Walker, R.	1	0	0		Williams, R. N.	1	1	0
Walker, T.	3	0	0		Williamson, A. S.	5	0	0
Walker, T. H. V.	3	3	0		Williamson, L.	1	1	0
Wallace, R.	5	5	0		Willmott, E. W. (2 donations)			1 17 3
Wallis, W. R.	1	10	0		Wilson, A. (2 donations)	3	2	0
Walpole, W.	1	1	0		Wilson, A. H.	3	3	0
Walter, Lieut.(E) H. P., D.S.C., R.N.	2	0	0		Wilson, A. J.	1	1	0
Wanless, R.	2	0	0		Wilson, H. A.	3	3	0
Ward, M. R. (2 donations)	1	1	1		Wilson, J.	1	1	0
Wardle, F.	1	1	0		Wilson, J. F. S.	5	0	0
Wardropper, M.	1	0	0		Wilson, N.	2	2	0
Warner, R. J. L.	1	1	0		Wilson, R. H.	5	5	0
Warren, F. H.	1	0	0		Windrum, R.... ..	2	2	0
Watkins, B. L.	1	0	0		Wood, F.	5	0	0
Watkinson, P.	2	2	0		Wood, H. G.			10 0
Watson, A. G. S.	5	0	0		Wood, L. (2 donations)	5	15	6
Watson, E.	1	0	0		Woodeson, W. A.	10	0	0
Watson, G. R.	1	6	0		Woods, A. R. T.	50	0	0
Watson, J.	5	0	0		Woof, R.	1	1	0
Watt, A. (2 donations)	7	7	0		Woolley, A. A.	10	0	0
Way, C. T.	5	0	0		Wren, I. L.	2	2	0
Webster, D. G.	5	0	0		Wright, N. L.	4	4	0
Weir, J. G.	500	0	0		Wright, W.			10 6
Weir of Eastwood, The Rt. Hon. Viscount, G.C.B., P.C., D.L.	500	0	0		Wrigley, C. F.	1	0	0
Weir, P.	1	0	0		Wynn, O. E. B.	10	10	0
Wells, R. H.	1	1	0		Wynne, J. F.	2	2	0
Welsh, R. J.	10	10	0					
Westwood, R. E.		5	0		Youldon, F. W. (4 donations)	18	15	0
Wethered, V. D.	5	0	0		Youngs, R. C. (2 donations)	2	0	0
Wharton, A. J.	2	2	0					
					Zinoviev, Eng. Capt. S. (2 donations)	3	2	0
					Zulver, C.	5	5	0