

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. LVI.



Session 1944-5.

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

Transactions of the

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THE INSTITUTE OF MARINE ENGINEERS

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Minutes of Proceedings at the Fifty-sixth Annual General Meeting, March 9th, 1945.

Chairman: Mr. S. A. SMITH, M.Sc. (Chairman of Council).

The fifty-sixth Annual General Meeting of the Institute was held at the Connaught Rooms, Great Queen Street, London, on Friday, March 9th, 1945, at 11.30 a.m. Mr. S. A. Smith, M.Sc. (Chairman of Council), was in the Chair, and was supported by Mr. W. L. Nelson (Vice-Chairman of Council), Mr. A. Robertson, C.C. (Honorary Treasurer), and Mr. B. C. Curling (Secretary).

The Late President.

The Chairman said that before commencing the business of the meeting it would be, he was sure, the general desire of the members that he should say something about the late President, Engineer Vice-Admiral Sir George Preece. Much had been written about this distinguished man, about his services in the "Lion" and other ships of His Majesty's Fleet, about his high technical ability as Professor of Marine Engineering at the Royal Naval College, Greenwich, and about his appointment first as Assistant Engineer-in-Chief and later as Engineer-in-Chief of the Royal Navy, in succession to Sir Harold Brown, a high office which he held with great distinction from 1936 to 1942, when he retired of his own volition to make room for a younger man.

One of the outstanding characteristics of the late Sir George Preece had been his thought for his fellow-man; no sacrifice was too great for him to make to help those around him. He became our President in 1943, and, as with everything he did, he threw himself whole-heartedly into the work of the Institute. His wide associations and intimate contacts with great men outside the Institute were of inestimable value to the Council in their deliberations, while his charming personality, his gift for friendship and his great regard for the welfare of marine engineers in general and the members of the Institute in particular would long be remembered by all who came in contact with him, and by none more than by the members of the Council and Committees of the Institute. He had rendered distinguished service to his country and had always had the greatest regard for the welfare of his fellow-men.

At the invitation of the Chairman, the members stood in silence for a few moments as a tribute of respect.

The Chairman then asked the Scrutineers to retire and examine the voting papers for the election of Officers and Members of Council, the result of the ballot being announced later in the meeting.

Annual Report.

The Secretary (Mr. B. C. Curling) then read an abstract of the Annual Report. (See p. ix).

Mr. Robertson's Service as Honorary Treasurer.

The Chairman, before calling on Mr. Robertson to read his financial statement, said it was appropriate to make some reference to Mr. Robertson's twenty-five years' service as Honorary Treasurer of the Institute. (Applause). Twenty-five years was a long time and during all that period Mr. Robertson had given up much of his leisure time in the service of the Institute and in consequence it was felt only fitting that the presentation which had been made to him should also include his wife, whose company on so many occasions he had sacrificed for the benefit of the Institute.

Owing to his long service as Honorary Treasurer, many people thought of Mr. Robertson as an accountant, but the speaker could assure all present that he also held his Extra First Class Board of Trade Certificate of Competency. He therefore submitted that the finances of the Institute could not be in more capable and trustworthy hands, and he thought that those present would agree that with such a high qualification Mr. Robertson should know how to "engineer" them. In addition to his duties as Honorary Treasurer, Mr. Robertson had been a tower of strength in organising our social functions and, due to his many city connections, the banqueting table of the Institute had on many occasions been honoured, as would be the case that day, by the presence of the Lord Mayor of London.

Mr. Robertson's confidence in the integrity of the members present to-day could not be better exemplified than by the fact that he had brought with him the gold watches with which he had been presented and had placed them openly on the table, in no way fearing that there would be any vanishing trick played, as they would remember was on one occasion enacted on a famous Gold Cup, nor

did he evince the slightest anxiety that the Chairman's hammer might come down on them, as many present no doubt had witnessed happen to the gold watch handed up to the magician by the gentleman in the orchestra stalls.

Mr. Robertson had been waiting for an opportunity to express his thanks to the members for their presentation, and he (the Chairman) had much pleasure in calling upon him to read his report.

Mr. Robertson, who was received with applause, thanked the Chairman for what he had said and the members of the Institute for the very fine presentation they had made to him on his completion, in March of last year, of 25 years' service as Honorary Treasurer. There was, he understood, a possibility of his being elected that day for a further year, which would be his 27th in the office.

The 25 years for which he had served had been full of happy memories. He had been cradled among marine engineers, and had very many happy recollections of friends who founded the Institute along with his father and his uncle, who were both original members. The interests of the Institute, therefore, were very dear to him. It was 29 years ago that he first had the privilege of being elected a member of the Council. He felt at that time that it was a great honour, and when, three years later, he was asked to become Honorary Treasurer, he esteemed it a very great honour indeed, and felt very hesitant about accepting it. There were many who, as the Chairman had said, thought that his original profession must have been that of an accountant, but he was almost straight from the sea when elected to the Council. When he first became Treasurer he felt that he would have great difficulty in carrying out the work properly, to the satisfaction of the members, but time had proved, he hoped, that he had to the best of his ability conserved the funds of the Institute. Many Chairmen in the past had said to him "You are very mean, not allowing me to do this!" but such decisions were all in fact decisions of the Council, and he felt exonerated of all responsibility in that respect, and the funds of the Institute were certainly in a very flourishing condition, far more so than when he accepted the office of Treasurer 26 years ago.

He was glad to have the opportunity of thanking the members personally for the presentation made to him, because it represented the contributions of a large number of the members, to whom he wished to express his gratitude. His wife wished him to say how much she appreciated the coupling of her name with the presentation. Her father was a very old member of the Institute, and it was at an Institute conversation that he himself was first introduced to her. (Applause).

Financial Statement.

The Honorary Treasurer, in presenting the Financial Statement, (see p. xix), said:

"I will proceed by reading the Auditors' Certificate attached to the Accounts, copies of which you all have for consideration.

Most of the items in the Revenue Account and Balance Sheet are perfectly clear, but it is advisable to compare the figures with those of previous years, as by doing so members obtain a clearer picture of our finances.

Revenue Account.

GENERAL EXPENSES.—The nett increase under this heading is only £13 13s. 5d. The following points, however, are of special interest.

Examination expenses for Associate Members and Graduates are increased from £41 3s. 8d. to £90 8s. 0d., an increase of £49 4s. 4d. Staff salaries and clerical assistance show a considerable increase from £2,194 3s. 8d. to £2,431 13s. 4d., a nett increase of £237 9s. 8d. This has been due to small increases in salaries all round and, of course, to the engagement of Mr. F. D. Clark.

The volume of work due to the growing membership and activities of the Institute continues to increase, and Mr. Curling has found the utmost difficulty in coping with the Council's requirements. The Council are fully aware of the difficulties with which he has been faced in this connection, and he is to be highly congratulated upon the way in which he has kept our work going. Steps are being taken to give him additional assistance, but as members will appreciate

this is by no means easy at the present time. Our expenditure in this connection will certainly not go down in future, but will probably be still higher next year.

Our Chartered Accountants' fees are entered at £150. This includes £25 for the previous year. The annual fee is now £125.

AFFILIATION SUBSCRIPTIONS AND CONTRIBUTIONS TO RESEARCH.—The amount of £84 0s. 6d. under this heading includes the following:—

	£	s.	d.
British Electrical and Allied Industries Research Association	15	0	0
Institute of Naval Architects' Wm. Froude Tank Research Fund	21	0	0
Parliamentary and Scientific Committee	10	10	0
British Non-Ferrous Metals Research Association	25	0	0

SUNDRIES.—These are lower than last year by £168 14s. 10d. The main items cover Christmas gratuities to Staff £60 0s. 0d., various Travelling Expenses £64 2s. 11d., and numerous small items.

STAFF PENSIONS.—The figure for 1943 stood at £595 0s. 1d. and for 1944 is £391 6s. 7d. The figure was high in 1943 owing to the reorganisation of the Staff Pensions Fund. The present figure of £391 6s. 7d. should represent the annual average cost to the Institute.

The nett result under the heading of General Expenses is therefore, as stated by the Auditors, only an increase of £3 15s. 5d.

RENT, RATES, ETC.—The only item which is varied to any appreciable extent is that of Rates, increased from £151 12s. 10d. to £264 0s. 11d. This represents two-thirds of a normal year. In the previous year we had a rebate from the City Corporation of £179, being an adjustment of Rates over two years. At the present time the War Department pay one-third of the Rates, leaving us two-thirds to meet during the requisition of the premises.

HOUSE ACCOUNT.—All the figures under this heading are higher and are likely to remain so, the increase of £79 3s. 6d. being due entirely to advance in costs generally.

REPAIRS.—Of the £161 17s. 2d. shown, approximately £90 will be recovered from the War Department, being the cost of renovating the Library and Reading Room. Our Architect has succeeded in obtaining a licence for the partial re-conditioning of other parts of the premises in view of our early reoccupation of the whole of the building. The work is about to be commenced.

TRANSACTIONS.—The cost of printing is still increasing and shows an advance from £1,361 4s. 11d. to £1,653 13s. 8d. The cost of printing advertisements is also proportionally higher, i.e., from £398 8s. 4d. to £506 11s. 10d.—all this, in spite of the fact that we have had to further restrict the size of the Transactions.

RESERVE FOR REPAIRS AND RENEWALS.—The Council have again placed £1,000 to the credit of this account, and you will note also that £200 has been placed to the credit of the Staff Pensions Fund.

INCOME FROM SUBSCRIPTIONS.—In spite of a considerable increase in membership this item shows a decrease of £28 8s. 1d. compared with last year. This is due to two factors, the first of which is that a large proportion of the new members' subscriptions are in advance on account of 1945 and are therefore deducted from the gross amounts received, as shown on the credit side of Revenue Account. The second is that a considerable number of subscriptions were in arrear on the 31st December, 1944, and it has always been the practice of the Institute not to take into account any subscription until it has actually been received. This is naturally the wisest and most conservative method of dealing with subscriptions, but it sometimes produces a rather misleading picture when, as was the case at the end of the year under review, the arrears are considerably higher than those of the previous year.

ADVERTISEMENTS.—The receipts are up by £104 11s. 11d., i.e. from £1,796 14s. 2d. to £1,901 6s. 1d.

On the advice of our Advertising Agents the rates for advertisements have been increased during the past year. We are hoping that this increased rate will continue, although we are having to be very careful not to allocate too much space for advertisements to the detriment of the space for our own requirements.

RENTS RECEIVABLE.—The War Office are still paying rent for the requisitioned portion of the premises; although the premises have now been vacated, we have not so far received notice of termination of tenancy from the War Office. This may be received at any moment. As already stated, the reconditioning of the affected portion is now being proceeded with. Part of the cost of this work will be paid by the War Department and a small proportion by the War Damage Commission.

INTEREST.—This is down from £730 19s. 5d. to £704 13s. 10d., a reduction of £26 5s. 7d., due to the fact that the Government called in our investment of £6,000 5% Conversion Loan last May. The cash received was reinvested in 3% Conversion Bonds 1960/1970,

involving a loss on the transaction of £240 8s. 0d. This loss has been debited to Revenue Account.

I have sketched briefly the main items of Revenue Account, the nett result of which is an excess of revenue over expenditure of £679 5s. 9d. compared with £1,376 7s. 1d. in 1943.

BALANCE SHEET.—Members' subscriptions paid in advance are increased from £674 16s. 2d. to £806 0s. 7d. Two of our Members have taken advantage of Life Membership during the year.

AWARDS.—The debit against the Denny Gold Medal Account of £15 was for the award made in 1943. This is only a reserve, as we have not yet been able to obtain and present the Medal.

The only other Award is the W. W. Marriner Prize, which was also for 1943.

It will be interesting to members to know that most of the monies received under different awards and legacies have been merged in the Institute Funds, with the exception of the Akroyd Stuart Award, the John I. Jacobs Award, the W. W. Marriner Prize and the Adam Girdwood Award.

Our income from investments is now on the average basis of 3 per cent. We are, however, continuing to debit our Revenue Account with the original rates of interest in connection with the Denny Gold Medal, the Sir Archibald Denny Award, D. F. Robertson Award and Lord Inverforth Award, as we do not wish to reduce the value of these Awards.

PUBLICATIONS: "RUNNING AND MAINTENANCE OF MARINE MACHINERY" AND "ELECTRICITY APPLIED TO MARINE ENGINEERING".—Owing to the fact that we have kept the selling price of these two books at the low figure of 8s. 6d. per copy, only a small profit has been made, or will be made in the future. The profit on the sale of these two books only amounts to £17 11s. 1d. and £16 10s. 11d. respectively, although on the other side of the Balance Sheet you will notice we have stocks of both of these books, amounting in value to £92 10s. 0d. and £28 10s. 0d. respectively. The amounts handed over to the Guild of Benevolence last year were £53 16s. 4d. and £51 19s. 11d. respectively.

"NAVAL ARCHITECTURE AND SHIP CONSTRUCTION".—This publication is on a different basis, as the copies are purchased from the Publishers and a fixed minimum profit is obtained on each copy. The profit in 1943 amounted to £103 0s. 3d., whereas in 1944 it amounted to £109 10s. 7d., the total profit to date being £212 10s. 10d. At the end of December, 1944, we had stock in hand of 209 copies.

SOCIAL EVENTS ACCOUNT.—We made a small profit on the annual luncheon in 1944 and the accumulated profit on this account is £169 15s. 5d. We look forward to the time when this account will become more lively, and an opportunity will certainly be taken, on the cessation of hostilities in Europe, to hold a *conversazione* at the earliest possible date.

RESERVE FOR REPAIRS AND RENEWALS TO PREMISES.—You will note that this account stands now at £3,000 and the Staff Pensions Fund at £300. On the other side of the Balance Sheet you will note the reinvestment of the £6,000 5% Conversion Loan in 3% Savings Bonds already referred to, and in addition to this we invested a further £2,000 in this security, making a total of £9,000 as against £1,000 held the previous year.

With the addition of the balance on Revenue Account, our Capital Account now stands at £35,122 7s. 0d.

LIBRARY AND READING ROOM ACCOUNT.—There is an item under this heading of "Sales" amounting to £12 6s. 5d. This is due to the fact that some of our overseas members have taken advantage of the facility offered by the Institute to obtain books for them. This is a service which could be very well utilised by a larger number of overseas members if they so desired.

GUILD OF BENEVOLENCE.—Owing to pressure of work, our Auditors unfortunately have not yet been able to complete the Accounts for the past year, so that it is impossible for me to give you the usual general review in advance. I can, however, give you the following information which will no doubt be interesting.

The total received in donations from all sources during 1944 was £3,890 17s. 3d. This included £1,500 from Mr. H. A. J. Silley and Mr. B. L. Silley, also the amount of £1,500 recovered on Income Tax, as well as £150 from King George's Fund for Sailors and a legacy of £200 from Mr. G. M. Wilson. Number of donors, 92; number of donors who gave £100 or more, 2; number of new Life Members, 11; Subscribing Members, 50; making a total membership of 196 Life Members and 426 Subscribing Members.

The capital, including revenue funds, now stands at £43,271 8s. 3d. The total revenue during 1944 was £1,995 1s. 11d. and the amount spent on relief was £1,367 6s. 3d.

The Capital Funds of the Guild of Benevolence are mounting steadily, thanks to the foresight of our Past President, Mr. John H. Silley, the help of many donors and the valuable contribution from Mr. H. A. J. Silley and Mr. B. L. Silley.

I trust I have been able to give you a good general survey of our finances, which, as I think you will agree, are in quite a healthy state."

At the conclusion of his Financial Statement the Hon. Treasurer referred to the question of providing new premises for the Institute, of which mention was made in the Annual Report which the Secretary had read. This would involve, he pointed out, considerable additional finance, which it was hoped would be forthcoming from all the members and friends of the Institute as liberally as, and, if he might suggest it, even more liberally than had been the case for the building of the present premises in 1912-13. A special Committee had been set up to deal with the subject, and their recommendations would be placed before the Council for approval in due course, and all the members would be notified. He hoped the matter would be dealt with in a whole-hearted and strong manner in the very near future.

Adoption of Report and Accounts.

Mr. T. A. Crompton, who proposed the adoption of the Report and Financial Statement, said that before saying anything about them he would like to associate himself with the remarks of the Chairman with reference to his old friend Alfred Robertson. He was perhaps the oldest friend of Mr. Robertson present that day; forty-nine years ago they started their apprenticeship together, and they worked alongside each other for some time in the same drawing office, in the firm of Mr. Robertson's uncle.

From the Council's Annual Report of the activities of the Institute during the past year, which had been read by the Secretary, it would be agreed that the thanks of all the members were due to those who had contributed in one way or another to a very successful year, in which there had been many excellent papers and subsequent discussions, all leading to the advancement of the science and practice of marine engineering, for which purpose the Institute had been founded over fifty-five years ago.

There would be regret at the passing of 42 members of all ranks, many in the service of the country, and to their relatives the Institute extended its sympathy. The total membership, despite losses, showed an increase of 252, which was rather better than in the previous year but still not nearly large enough for a body which represented one of the leading engineering professions.

An outstanding feature of the year had been the election to Honorary Membership of the Institute of the Right Hon. A. V. Alexander, C.H., M.P., First Lord of the Admiralty, one of the most capable members of the Cabinet, who enjoyed the confidence not only of his colleagues in the Government but of the whole of the British people and their Allies in his present task. It was gratifying that the Institute was securing the membership of an increasing number of junior engineer officers of the Royal Navy on passing out of the College at Devonport.

He had been pleased to see the formation by the Council of two new Committees, one to report on proposals for the establishment of a Merchant Navy Engineering College and the other to consider the problem of recruitment of junior engineers to the Merchant Navy. Both those Committees were dealing with matters connected with the advancement of marine engineering knowledge, and their work would lead, he hoped, to a much-needed increase in Institute membership on the part of a class of young men who would be most welcome to its ranks.

With regard to the acquisition of new premises for the Institute, he thought that few of the members would have been aware that with the contemplated rebuilding of the City of London it was almost certain that the site on which the Institute building stood would be required for other purposes, and that the Institute would need to seek fresh accommodation. That matter had been under the consideration of the Council, and their opinion was that the new premises should be not far from the existing site. That site, however, was not in his opinion at all suitable. A new building in the vicinity might be near to the City offices of the shipping companies, and convenient for the few members whose business was within that area, but he thought that the interests of the Institute would be better served if a position could be obtained in closer proximity to the other leading engineering institutions. The members claimed, and rightly claimed, that marine engineering was a most important section of the engineering world; but they would have more difficulty in maintaining that claim if they isolated themselves from the other institutions.

Engineering and engineers were destined to play an even greater part in world affairs, especially in the very near future, after the war, than ever before, and to that end the close collaboration of all the members of the various engineering societies was essential. There was also, he thought, a general desire on the part of members of the Institute to increase still further the co-operation between the

engineering branches of the Royal and Merchant Navies. Collaboration and co-operation between the principal engineering societies and between the engineers of the Royal and Merchant Navies would be more easily possible if their various headquarters were all within a short distance of each other. That was really essential as far as the staffs of the Services and societies were concerned. All matters relating to engineering, whether civil, mechanical, electrical or marine, were the concern of all, and the Services and societies had shared and must continue to share knowledge and common interests. He felt certain that if the Institute of Marine Engineers remained in the City they would be relegated to the background, and they would have nobody to blame but themselves. He therefore suggested that the Council should give further consideration to the matter before making a final decision.

So far he had dealt only with the Annual Report. The Financial Statement revealed a very sound position, but one which could, of course, be improved with that increase in membership to which the Institute looked forward.

He would like to suggest that the Council should consider giving some further substantial recognition to the services of the Secretary, bearing in mind the remuneration of his contemporaries in other societies of equal standing. This was a domestic affair, which he hoped the Press would refrain from mentioning.

Subject to his observations with regard to the selection of the site for the new premises, he had pleasure in moving the adoption of the Report and Financial Statement.

Mr. A. F. C. Timpson, who seconded, said he had intended to begin by saying that he fully endorsed the remarks of the proposer of the motion, but he must qualify that by saying that he cordially and emphatically disagreed with him on the subject of the site of the new premises. He thought that the bulk of the members would prefer a site near to the present one and would be unlikely to go to St. James's Park. It was desirable to have a large "floating" membership of engineers who were still serving at sea, and it was by having its premises in the City of London that the Institute was likely to attract them.

It was very pleasing to note the increase in membership, and also the number of papers of high standard which had been submitted, in spite of the many difficulties prevailing at the present time and the many subjects of interest which could not be discussed for security reasons. In spite of that, the papers programme had been filled with a number of interesting and valuable contributions up to the end of December, 1946, and details of that programme would be published shortly. He thought that the Institute administration had suffered some handicap due to the division between High Wycombe and Minorities, and it was good to know that in the near future the whole staff would be under one roof. That would help administration considerably.

The Accounts showed a very satisfactory position, and there was a Balance Sheet which could not be "window dressed" in any way, all the items shown being gilt-edged securities at or below market value. On the Revenue Account, it was pleasing to see a balance of £679 after making provision for repairs to the premises. He was afraid that there might be some difficulty in maintaining that balance in future years. The Treasurer had mentioned the question of advertisement revenue. Personally, he was afraid that the Paper Control might cut into that revenue to some extent unless that control was relaxed later on in the year, as everyone hoped would be the case. It must be agreed, however, that the affairs of the Institute were in a very satisfactory position, and he had great pleasure in seconding the adoption of the Report and Accounts.

Mr. T. A. Crompton, referring to the question of the new premises, pointed out that before the publication of the Report very few members knew that the matter would arise, and they had not had a chance of considering it or of expressing their opinions by correspondence.

The Chairman gave the assurance that every consideration had been given by the Council to the proposed position of the new premises. They realised that if they circularised all the 4,000 members of the Institute they would probably get 4,000 different opinions, and it would be impossible to see the wood for the trees. The Council of the Institute were an executive body appointed by the members to act on their behalf, and the decision of the Council, arrived at with great care, was that the right position for the new premises was in the heart of the shipping community, and near to Lloyd's and the Board of Trade, "somewhere between the Bank and Aldgate Pump". They had in mind a very fine site, which he was sure would receive in due course the approbation of the members generally.

The motion was carried unanimously.

Presentation of Award.

The Chairman said that, as stated in the Annual Report, the award of the Denny Gold Medal had been withheld, but the Institute Silver Medal had been awarded to Mr. H. Hillier, O.B.E., for his paper entitled "Boiler Feed Water Regulation". In presenting Mr. Hillier with a certificate, the Chairman assured him that the integrity of the Institute was such that he could rely on it being followed in due course by a silver medal when the present ban on the striking of medals was removed. As the winner of the W. W. Marriner Memorial Prize, Mr. R. Bartlett, was unable to be present, a cheque for the amount of the award was being sent to him by post.

Election of President.

The Chairman referred to the fact that the name on the ballot papers for President was that of Sir George Preece. The ballot papers, he explained, had to be sent out well in advance, in order to reach members overseas, and Sir George died some time after they had been despatched. It had always been the intention of the Council in due course to ask Sir William Currie to accept nomination to succeed Sir George Preece, but it was felt that with Sir William's heavy duties at the Ministry of War Transport, as well as his Chairmanship of the P. & O. and British India Companies, it would not be fair to ask him to take on an additional burden during the war. It was also considered that Sir George Preece, who had served the Institute so well for two years, had not been able to take part in a conversazione or other social function of the Institute, and that, as it was hoped that the resumption of such functions was not far off, he should be asked to serve for another year. In view of Sir George's untimely death, however, Sir William Currie had consented to be nominated, and he asked the members to elect Sir William Currie by acclamation President of the Institute for the ensuing year.

Sir William Currie was then, by acclamation, elected President of the Institute.

The President thanked the Institute for the great honour done him by his election. He confessed to being a baby on engineering questions; he relied entirely on Mr. Smith, but he hoped that he would not let the Institute or his predecessor in the office down, and that his year of office would be the year of victory. (Applause.)

Report of Scrutineers.

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

As Vice-Presidents for Sessions 1945-48:

London: J. Carnaghan, A. E. Crighton, J. B. Harvey, S. N. Kent, R. T. Wilson.

Liverpool: Lee Wood.

Sunderland: F. H. Reid, B.Sc., Wh.Ex.

Southampton: Eng. Com'r. W. A. Graham, R.N.R., O.B.E.

Greenock: M. McAffer.

Calcutta: C. S. McCaskie.

Buenos Aires: J. C. G. Williamson.

Capetown: A. H. Boyle, D.S.C.

Wellington: *R. L. Gillies.

San Francisco: C. E. Petersen.

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

*Elected to fill a vacancy which has occurred since the last Annual General Meeting and is now subject to confirmation.

As Honorary Treasurer for Session 1945-46:

Alfred Robertson, C.C.

As Members of Council for Sessions 1945-48:

J. Calderwood, M.Sc., Eng'r. Rear Admiral S. R. Dight, C.B.E., G. H. Forsyth, M.Sc., W. Sampson, A. F. C. Timpson, M.B.E.

As Associate Member of Council for Sessions 1945-48:

A. P. Quarrell, A.M.I.Mech.E.

The Chairman submitted to the meeting for confirmation the election of the following three Vice-Presidents who had been nominated to fill casual vacancies which had occurred since the voting papers were issued:—

Sunderland: A. J. Berry, S.R., R.N.(ret.), vice F. H. Reid, who had returned to London.

San Francisco: F. G. Archbold, consequent upon C. E. Petersen's recent death.

Calcutta: J. Routledge, who had agreed to serve on C. S. McCaskie's return to England.

The election of these three Vice-Presidents was unanimously confirmed.

Induction of the President.

The Chairman said it gave him great pleasure to induct Sir William Currie, the new President of the Institute, into the Chair, and on behalf of the Council and members of the Institute to extend to him a very hearty welcome. He could give the President the assurance, he said, that every effort would be made to relieve him of duties which the many calls on his time might render it difficult for him to undertake.

Sir William Currie then took the Chair, amid applause.

Vote of Thanks to, and Appointment of Scrutineers.

Mr. F. W. Youldon proposed a cordial vote of thanks to the Scrutineers (Messrs. G. B. Plows and C. J. Hampshire), and their reappointment for the ensuing year. Their work might not seem to be important, but it was; having served as a Scrutineer himself in the past, he knew that it meant giving up a certain amount of time apart from that occupied during the Annual General Meeting. Their reward was to be asked to serve again.

The motion was carried unanimously.

Vote of Thanks to the Council and Officers.

Mr. W. S. Burn moved that a cordial vote of thanks be accorded to the Council and Officers of the Institute. He did so, he said, with pleasure, for, having been a member of the Council himself within the last year or so, he realised the amount of work which was involved, especially in war-time. It was gratifying to find that under the direction of the Council, under the leadership of Mr. S. A. Smith, the Institute had made good progress, and he would like in particular to call attention to the work of the Secretary, Mr. Curling, who had been desperately overworked. He hoped that it would be possible in the immediate future to give Mr. Curling the assistance which he both required and deserved.

Many papers had been read and discussed during the session, the attendances seemed to have increased, and he thought that the enthusiasm had increased. Certain vital decisions had been taken at Council meetings. Consequent on that revival—and he thought that it was a revival, compared with the years of the Blitz—he hoped that the Institute's own lecture hall would be made available for meetings as soon as possible, so that it would not be necessary to seek the hospitality of other institutions. Moreover, although the members of the Council were very busy men he hoped that they would make greater efforts to attend meetings at which papers were read and take part in the discussions, and, what was even more important, give more papers themselves. Many members of the Council were eminent superintending and consulting engineers, and at present there was a very special need for information from such gentlemen to guide the future policy of marine engineering and shipbuilding in this country.

He believed that the work of a democratic body such as the Institute could be of immense value at the present time. The Council formed the spear-head of the Institute, and deserved the best thanks of the members and their encouragement for the future.

The President said that as Mr. S. A. Smith, the Chairman of the Council, was his colleague in the office, he would like, as his first job as President, to second the vote of thanks with which Mr. Smith's name was associated, and to say how grateful the Institute was for what he and others had done in the past year.

Mr. S. A. Smith, in reply, thanked the President for his very kind remarks, and on behalf of the Council, Officers and staff of the Institute thanked Mr. Burn for the way in which he had proposed the vote of thanks. In particular, he would like to associate himself, he said, with Mr. Burn's remarks about the Secretary, who had worked very hard indeed during the year. Having to go backwards and forwards between High Wycombe and the Minorities had meant a great deal of extra work, and the Secretary did need a bigger staff. He supported the suggestion that some financial recognition should be given to the Secretary for his work.

He endorsed what Mr. Burn had said about members of the Council giving greater support to meetings at which papers were discussed. It was disrespectful to the eminent authors of papers for members of the Council not to be present in force. On a recent occasion a very fine paper was read and there were only two speakers in the discussion.

He could not carry out his duties as Chairman of the Council without the great support which he received from the Secretary and the staff, who made the work easy. He was sure, therefore, that what Mr. Burn had said would have the full approbation of all the members present. (Applause.)

The meeting then terminated.

Annual Report of the Council

On the occasion of submitting this their report of the past year's work, the Council are saddened by the grievous loss which they and the Institute have sustained by the recent death of Engineer Vice-Admiral Sir George Preece, K.C.B., whose second year of office as President of the Institute was to have been followed by his re-election for a third year at the Annual General Meeting. His re-nomination by the Council reflects not only the high valuation which they placed on his services as President, but their unbounded admiration of Sir George's great personal qualities, of which they gained a deep impression through constant intimate contacts with one who made Institute history by attending, with hardly a single exception, every Council and Committee meeting, including all meetings of the Guild of Benevolence, since his election as President in March, 1943. Tribute to our great leader and friend was made in the January (1945) TRANSACTIONS, but printed records must remain inadequate expressions of the profound sorrow with which countless marine engineers received news of the passing of Sir George Preece.

To their nominee for election as the Institute's next President, Sir William Currie, the Council extend a cordial welcome. They are grateful to him for having accepted nomination at such short notice, and they look forward to a session of continued progress under his experienced leadership. The intimate association of the great P. & O. Company with the Institute since its foundation in 1889 will be happily renewed by Sir William's election as President—an office which was also held by his two consecutive predecessors in the Chair of his Company, Lord Inchcape and Lord Craigmyle, and still earlier by Sir Thomas Sutherland. Similarly, the retiring Chairman of Council is a link in the chain of the Company's Superintendent Engineers, who have served in the various capacities on the Council since Mr. Robert Leslie was a signatory to the Institute's original Articles of Association and Honorary Treasurer from 1890 to 1896, and Mr. G. W. Manuel was the second President in 1890/1.

Membership.

The accompanying table and chart show a net increase of 252 in the aggregate membership, a trend which may reasonably be expected to continue during the coming session. A gratifying feature has been the admission to Student membership of a considerable number of junior engineer officers of the Royal Navy on their passing out of the Engineering College at Devonport. Their early association with the Institute should prove reciprocally beneficial to themselves and to their profession, whose interests the Institute exists to promote. A similar accession of junior engineers of the Merchant Navy to the Institute membership should ensue if and when the essential elements of the Institute's proposed scheme of training become adopted.

An outstanding event was the election of the Right Honourable A. V. Alexander, C.H., M.P., the First Lord of the Admiralty, as an Honorary Member, which took place at the December Council meeting.

Obituary.

The losses by death are recorded in the obituary notices at the end of this Report. The Council extend, in the name of the whole membership, renewed sympathy to the next of kin.

The list includes the names of the following Past-Presidents and Vice-Presidents, whose passing is especially regretted: The Right Honourable Lord Craigmyle, Past-President; Commander Sir Charles W. Craven, Bt., O.B.E., R.N.(ret.), Past-President; Robert Balfour, Honorary Vice-President; D. K. Blair, Vice-President; James M. Dewar, Vice-President; and Carl E. Petersen, Vice-President. The death of Engineer Vice-Admiral Sir George Preece, K.C.B., President, referred to above, occurred on 5th January of the current year.

Council.

At the meeting of the Council held on 21st March, Mr. S. A. Smith, M.Sc., was elected Chairman of Council and Mr. W. Lynn Nelson, O.B.E., Vice-Chairman for the 1944/5 session. Mr. James Calderwood, M.Sc., the Immediate Past-Chairman, was co-opted to serve on the Council for the ensuing year in an advisory capacity.

Vice-Presidents.

Barrow.—The resignation of Engineer Rear-Admiral Sir Robert

Beeman was accepted with regret on his retirement and removal from the Barrow district.

Wellington, N.Z.—Mr. R. L. Gillies was unanimously elected to succeed the late Mr. D. K. Blair.

Representation of the Institute on Outside Bodies.

The following re-elections, changes of representation, and new elections have taken place during 1944:—

British Shipbuilding Research Association.

Mr. S. A. Smith elected as representative on the Research Board of the Association.

Engineering Joint Council.

Mr. S. A. Smith elected vice Mr. J. Calderwood (retired).

British Non-Ferrous Metals Research Association—Corrosion Research Committee.

Mr. J. A. Rhynas elected vice Mr. James M. Dewar (resigned).

Department of Scientific and Industrial Research. Conference on Main Reduction Gears Installed in Ships.

Engineer Vice-Admiral Sir George Preece, Mr. S. A. Smith and Mr. H. J. Wheadon appointed to represent the Institute at the above Conference, held on 19th July.

Proposed Scottish Engineering Students' Association.

Mr. L. C. Davis (Vice-President) represented the Institute at a meeting held in Glasgow on 24th October, at which the above proposal was discussed. Later Mr. John Adam (Student) was appointed to represent the Institute at the next meeting, with Mr. Davis in a watching capacity.

BRITISH STANDARDS INSTITUTION.

Committee on Gear Cutting Machines.

Mr. S. A. Smith elected as representative on this Committee.

Technical Committee ME/12. Chains and Fittings. Sub-Committee ME/12/6. Anchor Chains.

Mr. J. Carnaghan elected vice Captain B. Warwick (resigned).

Technical Committee ME/17. Gears.

Mr. G. H. Forsyth, M.Sc., elected vice Mr. A. E. Crighton (resigned).

Grade.	1st Jan., 1944.	Transfers From	To	Elected.	Died.	Resigned.	Lapsed.	Total 31st Dec., 1944.
Past Presidents ...	14				2			12
Honorary Members	2			1				3
Members ...	3,009		31	166	31	25	54	3,096
Companions ...	41			2	1	1		41
Associate Members	364	10	2	8	3	1	12	348
Associates ...	640	23	7	177	3	2	9	787
Graduates ...	91	3	3	13	1	3	1	99
Students ...	70	7		35	1			97
Totals ...	4,231	43	43	402	42	32	76	4,483

Papers.

The following papers have been published in the TRANSACTIONS during 1944, those marked * after reading and discussion:—

Issue.	Title.	Author.
January.	Some Considerations on the Origin and Development of Heavy Oil Engines	Denis Rebbeck, M.A., A.M.I.Mar.E.
February.	Common Boiler Ailments and Their Cures.	J. H. Milton, M.I.Mar.E.
March.	Fuses and Circuit Breakers for Circuit Control and Protection in Marine Installations.	C. P. Harrison, M.I.Mar.E.
April.	The Design and Construction of Diesel-engined Tankers.	H. S. Humphreys, M.I.Mar.E.
May.	*Some Notes on Welded Ship Construction.	James Turnbull, M.I.Mar.E.
June.	*Boiler Feed Water Regulation.	H. Hillier, O.B.E.
July.	*Symposium: The Engining of Post-War Cargo Vessels of Low Power.	
	(I) Reciprocating Machinery with Exhaust Turbine (Rauer-Wach System).	P. L. Jones, B.Sc.,

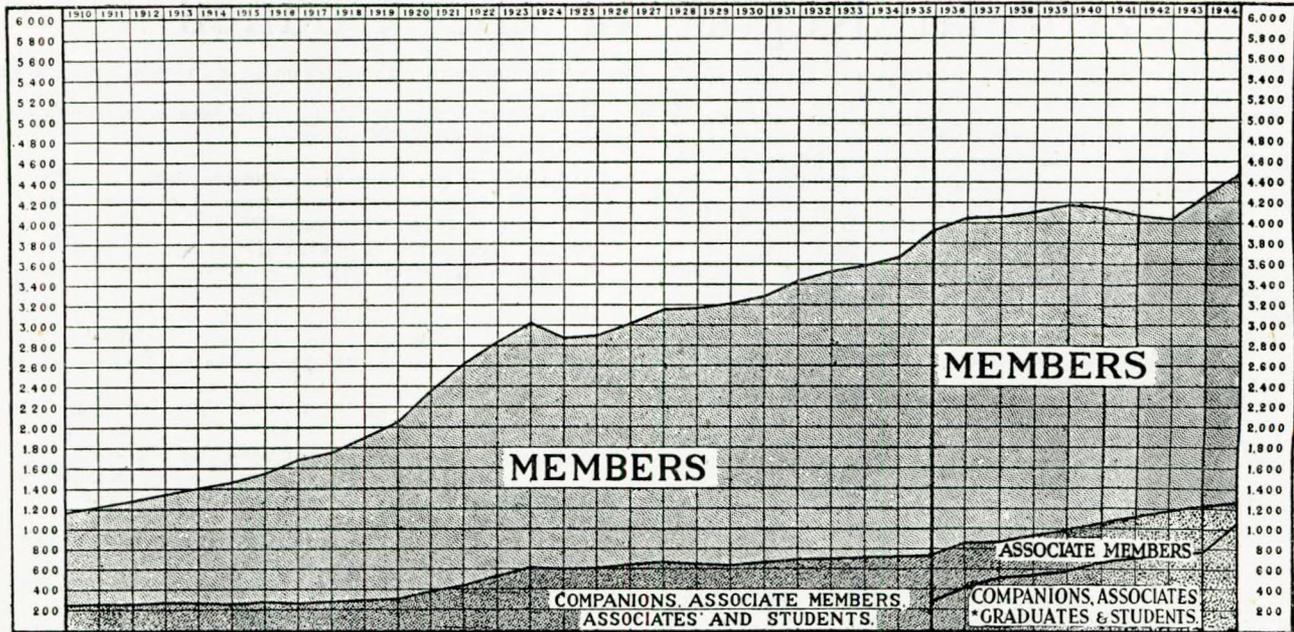


Chart of Membership.

- (II) Reciprocating Machinery with Exhaust Turbine (Götaverken system). J.-B. O. Sneed, B.Sc., Ph.D.
- (III) Diesel Machinery (Doxford). W. H. Purdie.
- (IV) Diesel Machinery (Sulzer). E. W. Cranston, Wh.Sc., A.I.Mar.E.
- (V) High Pressure Geared Turbine Machinery. S. S. Cook, F.R.S., M.I.Mar.E.
- (VI) Turbo-electric Machinery. C. Wallace Saunders, M.I.Mar.E.
- (VII) Diesel-electric Machinery. D. E. Jewitt.
- (VIII) Geared Diesel Machinery. D. Bruce, M.I.Mar.E.
- Summary of the eight papers. J. Calderwood, M.Sc., M.I.Mar.E.

- August. Symposium: The Engining of Post-war Cargo Vessels of Low Power: Appendices 1, 2 and 3. Discussion and authors' replies.
- September. Boiler Control.
- October. Heavy-oil Engine Progress.
- November. *Some Modern Applications of Welding to Engineering.
- December. *Electrical Machinery for Use with Ships' Auxiliaries.

- E. G. Bailey and P. S. Dickey.
- J. W. Armstrong, M.I.Mech.E., A.M.I.Auto.E.
- J. A. Dorrat, Assoc. H.W.C.
- R. S. Blackledge, M.I.E.E., M.I.Mar.E.

Institute Awards.

The Denny Gold Medal, for the best paper contributed by a Member during 1944. On the recommendation of the Committee of Adjudicators the Council have decided to withhold the award of the Denny Gold Medal on this occasion.

The Institute Silver Medal, for the best paper contributed by a non-member during 1944, has been awarded to Mr. H. Hillier, O.B.E., for his paper entitled "Boiler Feed Water Regulation", published in the June TRANSACTIONS.

The Junior Silver Medal and Premium.—No paper having been contributed by a junior member during 1944, there was no competition for this award.

The Herbert Akroyd Stuart Award.—The current competition for this award closes on the 30th April, 1945.

The W. W. Marriner Memorial Prize, value £5, for the best Engineering Knowledge script written by a candidate in the Ministry

of War Transport's 1944 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 Mr. Ralph Bartlett of Cheltenham.

Lloyd's Register Scholarship.

Owing to the fact that none of the seven candidates in the 1944 examination attained a sufficiently high standard, the Committee of Lloyd's Register decided to withhold the Scholarship on this occasion, and to suspend further awards until after the war. The fact that the tenure of the three Scholarships awarded in 1940, 1941 and 1942 had had to be postponed by direction of the Ministry of Labour also influenced the Committee in the above decision.

J. Sloan, the winner of the 1939 Scholarship, obtained his B.Sc. degree at Queen's University, Belfast, and is now employed on the Research Staff of the Chief Engineer Surveyor, Lloyd's Register of Shipping.

Institute Prizes for Students of Technical Colleges in Marine Centres.

The Institute's annual prizes for students of Heat Engines at technical colleges and schools in marine centres have been awarded as follows:—

- Aberdeen, Robert Gordon's Technical College: J. Mc.L. Crawford.
- Belfast College of Technology: G. R. Harvey.
- Birkenhead Technical College: R. J. Jones.
- Cardiff Technical College: W. C. Perry.
- Dundee Technical College: H. A. Moncur.
- Falmouth Technical School: J. G. Bache.
- Gateshead-on-Tyne Senior Technical Institute: N. Lobley.
- Glasgow, Royal Technical College: J. Milne.
- Greenock, Watt Memorial School: R. M. Robb.
- Hull Municipal Technical College: J. F. Dickenson.
- Leith Technical College: J. Smith.
- Liverpool Technical College: J. E. Carrington.
- London, The Polytechnic, Regent Street: R. E. Beckett.
- Middlesbrough, Constantine Technical College: L. Teasdale.
- Newcastle-on-Tyne, Rutherford Technical College: S. A. Tait.
- Plymouth and Devonport Technical College: G. W. Conibeer.
- Portsmouth Municipal College: R. E. Sivyer.
- Southampton, University College: P. A. Sait.
- South Shields, Marine School: E. Wiberg.
- Sunderland Technical College: W. A. Hulse.
- Swansea Technical College: R. J. Ryman.
- West Ham Municipal College: P. J. Smith.
- West Hartlepool Technical College: D. Meynell.
- Woolwich Polytechnic: D. Richards.

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

The Institute Prize for 1944, for excellence in Marine Engineering, was won by Cadet A. D. Rumble.

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

465 Ordinary Certificates, 180 Higher Certificates, 25 Ordinary Diplomas, 22 Higher Diplomas and one Supplementary Endorsement of Higher Certificate were endorsed by our President during 1944.

Essay Competitions.

At their November meeting the Council decided to resume the essay competitions by offering prizes from the funds available under the various Institute awards as follows:—

From the interest on the Sir Archibald Denny, J. Stephen, and Lord Inverforth Funds: A cash prize of £20 for the best essay on any subject of marine engineering interest submitted by a member of any grade, including Students and Graduates;

From the interest on the John I. Jacobs, W. Murdoch and D. F. Robertson Funds: A cash prize of £20 for the best essay on any subject of marine engineering interest submitted by a Student or a Graduate of the Institute.

Essays intended for the 1945 competitions should be delivered to the Secretary not later than the 30th September, 1945.

Junior Section.

The activities of this Section remain in abeyance.

Transactions.

The Council wish to record their special thanks to the authors who have contributed papers for publication in the TRANSACTIONS, with or without discussion, during 1944. The monthly publication in the TRANSACTIONS of marine engineering and shipbuilding abstracts from the technical press, prepared by Engineer-Commander D. Hastie Smith, has been maintained throughout the year.

Publication of Books.

The third edition of "The Running and Maintenance of Marine Machinery" and reprints of the first editions of "Electricity Applied to Marine Engineering" and "Naval Architecture and Ship Construction" have been published during 1944. A further reprint of "Electricity Applied to Marine Engineering" has been ordered and is now nearly ready, pending the preparation of a second edition, revised and enlarged, under the joint authorship of Mr. W. Laws and Mr. T. W. Bunyan. A second reprint of "Naval Architecture and Ship Construction" is also in hand.

The Council, with the author's agreement, have granted permission to the Polish Ministry of Industry, Commerce and Shipping to translate into Polish and publish 1,000 copies of "Naval Architecture and Ship Construction" for the use of junior engineers of the Polish Merchant Navy.

Premises.

The Library and Reading Room at the Minories have been open for the daily use of members during the year, and there has been a considerable increase in the number of books and pamphlets issued on loan from the Library.

The office staff has remained at High Wycombe, with the exception that the Secretary has divided his attendances between that address and the City premises. The War Office have now vacated the latter premises, which will be re-occupied by the staff as soon as circumstances permit.

The Council having been informed that the Institute building will have to be demolished when the post-war reconstruction of the City is carried out, they have given careful consideration to the question of the location of the future Institute premises. At a special meeting held in January last the Council unanimously decided that the future site of the Institute should be somewhere in the heart of the shipping community, between the Bank and Aldgate Pump. The question of an exact site, plans of the future building, and the financing of the scheme are under consideration, and definite proposals relating thereto will be announced by the Council in due course.

Staff.

The staff has remained as constituted at the beginning of last year, with the exception that Mr. F. D. Clark's probationary engagement was terminated by his request at the end of December. Messrs. G. Lambert (Royal Army Service Corps), R. Cane (Royal Army Pay Corps) and J. Willis (Merchant Navy) are all on active service overseas.

Guild of Benevolence.

The Council, as Trustees of the Guild of Benevolence, are

pleased to record that further donations to the Guild were received during 1944, amounting to £832 16s. 3d., in addition to the second annual donations of £1,000 and £500 to the John Silley Memorial Fund, received under covenant from Mr. H. A. J. Silley and Mr. B. L. Silley respectively.

Revision of the By-Laws.

The Special Committee and the several associated Standing Committees have held a number of meetings during the past year, and their work is now nearing completion.

Honours.

The awards of the undermentioned distinctions were notified during 1944:—

Knight Bachelor.

L. T. G. Soulsby (Member).

C.B.E.

J. L. Adam (Member).

W. Sutcliffe (Vice-President).

W. Wallace (Member).

The Hon. J. K. Weir, B.A. (Member).

O.B.E.

D. B. Carswell (Vice-President).

J. L. Coates (Member).

Com'r.(E.) P. H. Craven-Phillips, R.N. (Member).

C. A. Davidson (Member).

J. H. Davidson (Member).

D. Dunn (Member).

G. Filshie (Member).

W. W. Halliday (Member).

H. R. Humphreys (Member).

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

W. Lynn Nelson (Member of Council).

E. E. Vick (Member).

M.B.E.

Lieut.(E.) L. L. Broad, R.N.R. (Associate Member).

W. Hoy (Member).

J. S. Livingstone (Associate).

Lieut.(E.) F. H. Peck, S.A.N.F. (Associate Member).

J. Simpson (Associate Member).

Lieut.(E.) H. MacQ. Stone, R.N.R. (Member).

J. A. Winton (Associate).

Distinguished Service Cross.

Lieut.(E.) J. C. B. Anderson, R.N.R. (Associate Member).

Mentioned in Despatches.

Major W. A. Hutcheon, A.B.R.O. (Associate Member).

Lieut.(E.) L. G. Whalley, R.N. (Associate).

Commendation.

A. H. Hodges (Member).

Lloyd's War Medal.

E. G. Booth, M.B.E. (Student).

J. Simpson (Associate Member).

T. Spence, D.S.C. (Member).

Presentation to Mr. Alfred Robertson.

On the 28th March, 1944, Mr. Alfred Robertson completed 25 years in the office of Honorary Treasurer of the Institute. The Council agreed that the occasion should not be allowed to pass without some acknowledgment in the form of a presentation to Mr. Robertson, and they decided that a subscription fund be opened by means of a circular notice to all members, inviting subscriptions before the end of May. As a result the Council, at their June meeting, were able to hand to Mr. Robertson on behalf of all the contributors a cheque, with the request that he should purchase a gold watch with part of the money and expend the remainder in whatever manner he chose, as a mark of the Institute's grateful appreciation of his 25 years service as Honorary Treasurer. Mr. Robertson suitably acknowledged the presentation, which he said would be highly prized by himself and Mrs. Robertson, to whom he paid tribute for her loyal support and interest, particularly in the earlier years when, through the lack of permanent staff, the duties of the office made heavy demands on his leisure time. The gold watch which Mr. Robertson subsequently purchased was inscribed, by the wish of the Council, as follows:—

Presented to Mr. Alfred Robertson, Honorary Treasurer of the Institute of Marine Engineers for 25 years, by the President, Council and Members as a mark of their personal esteem and appreciation of his outstanding services during that period. 28th March, 1944.

Merchant Navy Engineering College.

At their May meeting, the Council approved and adopted, with slight amendment, a report and recommendations of a joint committee consisting of the Membership Committee, Education Group Executive Committee, and Examinations Board, outlining * proposals for the establishment of a Merchant Navy Engineering College. Copies of these recommendations were subsequently sent to the Merchant Navy Training Board, for consideration by the Engineering Committee of the Board.

Committee on Merchant Navy Engineers.

At their November meeting, the Council appointed a standing committee consisting of superintendent engineers who were at present Members of Council or Vice-Presidents, to consider the present problem of the recruitment of junior engineers for the Merchant Navy and other such matters as they arose. The following have agreed to serve on this Committee: Messrs. S. A. Smith (Chairman), J. C. Lowrie, W. L. Nelson, G. Ormiston, R. Oxburgh, J. A. Rhynas and H. J. Wheadon.

S. A. SMITH,
Chairman of Council.

B. C. CURLING,
Secretary.

Reports of Representatives on the Various Outside Bodies.

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

The Engineering Joint Council. Representatives: Mr. S. A. Smith, M.Sc.; ex officio, The President.

No meetings of this Council took place during 1944, the November meeting being abandoned owing to the absence of any important business and the Chairman, Sir William Stanier, being abroad.

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

The annual meeting of the Board was held on Friday, July 7th, at which the report for 1943/44, the statement of accounts for the half-year to December 31st, 1943, and the pass lists of the Common Preliminary Examinations held overseas in October, 1943, and at home in April, 1944, were adopted.

The committee of moderators was appointed for 1944/45 and it was agreed that the examiners in the subjects of the Common Preliminary Examination who acted in 1943/44 be requested to act for the year 1944/45. It was decided that in 1945 the Common Preliminary Examination be held on the 10th, 11th, 12th and 13th April and on the 2nd, 3rd, 4th and 5th October.

A further meeting of the Board was held on Wednesday, November 22nd, at which the report from the committee of moderators on the results of the April, 1944, examination abroad and the October, 1944, examination at home was adopted.

The following educational examinations were considered with a view to exemption from the Common Preliminary Examination:

Royal Navy Higher Educational Test—first and second class certificate;

Royal Marine First Class Certificate.

A sub-committee was formed to consider the above applications for exemption.

Details of the results of the 1944 examinations are given hereunder:

For the April, 1944, examination there were 209 Home candidates, of whom 190 presented themselves and arrangements were made to examine 7 candidates at overseas centres and 10 candidates in Prisoners of War Camps. Of the 9 candidates (overseas and P.o.W.) who presented themselves, 7 passed and 2 failed.

For the October, 1944, examination, there were 150 Home candidates, of whom 133 presented themselves and arrangements were made to examine 156 candidates at 15 overseas centres and 3 Prisoners of War Camps.

The results of the Home examinations are:

	Sat.	Passed.	Referred.	Failed.
<i>Whole examination:</i>				
April, 1944 ...	84	44	24	16
October, 1944 ...	48	14	15	19

*See TRANSACTIONS, May, 1944, Vol. LVI, Part 4, page 54.

One or two subjects:

April, 1944 ...	106	96	5	5
October, 1944 ...	85	61	4	20

The total numbers of exemption certificates received, from 1st June, 1941, to 30th June, 1944, were:

The Institution of Civil Engineers ...	1,334
" " " Mechanical Engineers ...	971
" " " Municipal and County Engineers ...	60
" " " Naval Architects ...	3
" " " Structural Engineers ...	1
The Institute of Marine Engineers ...	37
The Royal Aeronautical Society ...	223
Total ...	2,629

London County Council, School of Engineering and Navigation, Poplar, Advisory Sub-Committee. Representative: Mr. S. N. Kent.

At the last meeting of the Advisory Sub-Committee in April, 1944, the Education Officer reviewed some of the difficulties confronting those responsible for the administration of Education in London with particular reference to repair and full re-occupation of the School of Engineering and Navigation. The meeting was adjourned until some date not yet fixed. Meanwhile, the following is a brief survey of what the School is doing.

The Senior Merchant Navy Departments are still working very successfully at The City Literary Institute.

The L.P.T.B. Apprentice School at Charlton is in operation under the direction of Mr. R. S. Hogg, M.I.N.A. The number in attendance at the end of December was 31.

The Junior Technical School at Bridgwater is flourishing. The number in attendance at the end of December was 161; 24 of these boys have been placed in apprenticeships in the Engineering Industry which they will be taking up before Easter.

Evening courses have been resumed at Poplar in Electrical and Mechanical Engineering for the Ordinary National Certificate, Workshop Practice, and Acetylene Welding. The enrolment at the end of January was 46.

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

The inaugural meeting of this Association took place on 27th June, 1944, Sir Maurice E. Denny, Bt., being in the chair. At this meeting the Chairman outlined the framework of the Association and the functions and membership of the Council of the Association and the Research Board.

Corrosion Research Committee of the British Non-Ferrous Metals Research Association. Representative: Mr. J. A. Rhynas.

The first report of the Committee has been recently circulated to members as a confidential document. Some very interesting and comprehensive papers on condenser tube corrosion are included, the publication of which will no doubt be made available generally in the near future, but which, for the present, must be regarded as secret.

The Institute of Welding. Representative: Mr. James Turnbull.

During the past year, further consideration has been given to the design and manufacture of engine bedplates and entablatures for marine reciprocating engines. Various designs have been prepared and it is intended to issue a memorandum giving recommendations for the design of welded bedplates. When conditions are favourable it is intended to carry out appropriate fatigue tests.

A committee has been set up to deal with the question of heat treatment for the purpose of stress relief and reduction of distortion during welding and subsequent service of welded constructions.

The investigation work of the Ship's Structures and the Welding Procedure Committees has been actively continued and the results to date have been published.

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

The Committee has been very active throughout the year, and there has been a notable increase in membership from both Houses of Parliament. Some of our leading scientists have read most interesting papers at meetings convened by the Committee during the past year and the work of scientists and engineers is being kept well to the fore.

The Committee has continued to circulate reports of scientific and technical matters dealt with in Parliament, which have included a number of matters of direct interest to our members, such as coal fired ships, coal utilisation, smoke reducing grates and technological education.

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

Carbon Steels.

Considerable progress has been made during the year in the research on steels for use at high temperatures. Prolonged creep tests are in hand, and are intended to continue for five years or more, on certain carbon steels to provide data as a check on the extrapolation to 100,000 hours of data already available, and to compare the behaviour of the steels on this long time basis. Four low carbon steels are being tested at 450° C. with a stress of 6 tons per sq. in. Similar tests are in progress on a carbon and a molybdenum tube steel in the condition as supplied. The superheater header carbon steel is under test at 450° C. and 480° C. with a stress of 5 tons per sq. in., and the superheater header molybdenum steel at 500° C. with a stress of 6 tons per sq. in. The changes in microstructure of the creep specimens are being observed at approximately yearly intervals, and for the purpose of comparison an examination is also made of unstressed specimens of the same steels, which are held alongside the stressed specimens in the same furnace.

Molybdenum and complex molybdenum steels.

Investigations are being made on the effect of various normalising temperatures on low carbon-molybdenum steels with the object of tracing the extent of creep abnormality in molybdenum steels and of connecting any abnormality which may exist with any abnormality in the McQuaid-Ehn test of the steels.

In order to determine short-time and long-time creep limits of molybdenum steels, creep tests and Barr and Bardgett relaxation tests are being carried out on a number of molybdenum and molybdenum-vanadium steels in the temperature range 500° to 650° C.

In addition to the prolonged creep tests on molybdenum tube steel, investigations are being carried out on the effect of normalising the molybdenum header and superheater tube material.

Further work is in progress to determine the effect of vacuum, air, steam and hydrogen on the life under stress of molybdenum steels at a temperature of 580° C. and under a load of 7 tons per sq. in. In the tests already carried out, confirmation of the reduction in specimen life in steam and in hydrogen has been obtained, and in general specimens tested in these atmospheres show a higher minimum rate of creep.

Investigations are being put in hand on the creep of superheater tubes under internal steam pressure at superheat temperatures and a special apparatus has been designed and is being constructed for the purpose.

Steps are being taken to find the cause of the trouble due to cracking which has recently been reported as being experienced with molybdenum steel piping.

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

The following brief particulars are given of some of the matters of importance and interest which the Technical Committee have had under consideration during the year:

(a) Report on the work of the British Standards Institution Committee on treatment of boiler feed water, of which Committee the Chief Engineer Surveyor is a member.

(b) "Guidance Notes on the Application of Electric Arc Welding to Ship Construction", issued early in 1944 and chiefly intended for the use of surveyors, but made available to the industry.

(c) Revision and issue of new rules for the application of welding to ship structures, including a table similar to, and as complete as, that given for riveting.

(d) Consideration of the serious depreciation in ships' structures, due to the unavoidable absence of survey facilities during war time, with consequent submission to the Ministry that this matter should be given attention and appropriate action taken to avoid the necessity for laying ships off for long periods at a time when their services may be urgently required. This submission has received sympathetic consideration from the authorities.

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

A great stride forward has recently been taken to advance the work of the Association. Through the Department of Scientific and Industrial Research a grant is to be made to Aslib of £1,000 for the first £1,500 subscribed by members in the United Kingdom, and cent per cent for the next £1,000. This opens the way to the carrying out of a number of urgent projects which have been awaiting funds. The Annual Conference was held on the 8th-10th December, and included the reading and discussion of a number of papers of importance to technical societies and research workers.

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

The Society carried out a full programme of papers and discussions during the year. Technical abstracting and classification were particularly well represented in the programme, and the papers and discussions on this subject were very comprehensive and informative.

British Standards Institution's Committees.

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

The Petroleum Industry Section has to report the following action:—

Technical Committee PT/2 remains the main Committee dealing with the standardisation of fuel oils and their submission to Petroleum Industry Committee as final draft specifications.

Sub-Committee PT/2/1 dealing with Diesel Fuel Oils has drafted B.S. 209, Fuel Oil for Diesel Engines, which has now been issued.

Sub-Committee PT/2/2 has completed draft specification B.S. 742, Fuel Oil for Burners, which has also been issued.

Sub-Committee PT/3/2 has completed draft specification B.S. 489, Turbine Oils, which has now been issued as a War Emergency revision under Amendment No. 1 (P.D. 211) and takes care of the various changes which have been under review by the Sub-Committee.

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

An amendment slip was issued for B.S. 1101, Pressure Paint Containers.

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

The following specifications were approved for publication: High duty studs and tapped holes in light alloys; Sluice valves; Semi-rotary hand operated pumps, double acting, for water.

Revision of the following specifications has been approved: 324, Black, iron and steel, cap and countersunk boltheads, nuts and washers 864, Capillary fittings and compression fittings for copper and alloy tubes; 163, Galvanised solid steel wire for signalling purposes; 57, Heads for British Standard screws; 659, Light gauge copper pipes; 61, Screw threads for copper pipes; 394, Short link iron chain shackles; 529, Steel eye bolts; 482, Wrought iron and mild steel hooks for cranes, chains, slings and general engineering purposes.

Amendment slips have been issued for the following specifications: 916, Black bolts and nuts; 466, Electric overhead travelling cranes; 1083, Machine bolts, nuts and set screws; 1095, Metric screw threads; 591, Wrought iron and mild steel hooks of the "C" Liverpool type.

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

The Committee has been engaged principally on "Codes of Practice for the Building Trade" at the request of the Ministry of Works. The Committee has issued one revision, B.S. 735, Sampling and Analysis of Coal and Coke, and is revising B.S. 758, Domestic Hot Water Boilers.

Iron and Steel Industry Committee, IS/-. Representative: Mr. James Turnbull.

Maintaining a war time practice, this Committee has not met, but the business has been conducted by correspondence. During the past year, consideration was given to a scheme for allotting identification numbers to alloy steels and corresponding B.S. Specifications. Due to difficulties in devising a satisfactory system and the fact that there appeared to be little need for taking action at present, it was decided to proceed no further with the proposal.

B.S. 64, Steel Fishbolts and Nuts for Railway Rails, has been revised in preparation for re-issue, and the following specification has now been published: B.S. 970C, Memorandum to Consumers and Producers regarding the Standardisation of Alloy Steels.

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

Arrangements have been made to consider the revision of the various specifications covering hot water supply and central heating boilers, calorifiers and storage vessels.

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

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

With regard to the specification for chains, now in the hands of the printers, certain wartime modifications were agreed and the whole matter will need renewed consideration when conditions permit.

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

During the past year the Committee completed a draft code entitled "Treatment of Feed Water and Boiler Water for Marine Boilers", together with three data sheets summarising, for purpose of ready reference, the types of chemical treatment recommended.

In accordance with the usual practice of the British Standards Institution, some 1,000 copies of the draft have been circulated to various interested persons and organisations for comment. A small panel, elected by the Committee, is at present reviewing the many useful comments received, and revising the draft code. It is anticipated that the final publication will be available within the next two or three months. In the meanwhile, copies of the draft may be pur-

chased from the British Standards Institution Publishing Department.

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

Only one meeting of the Committee has been held, on the 2nd May, 1944. At that meeting it was decided to increase the scope of the standardisation to cover all interests. These interests are so many and diverse that it was finally decided to set up eight panels, as follows: Gas, Air, Steam, Chemical, Oil and Petroleum, Refrigeration, Marine, Water. The proposals of each panel are to be reviewed by Technical Committee ME/81 to ensure a common form and unification, those dealing with Gas, Steam and Marine Valves being dealt with first.

In December, 1944, there was issued to members the third revision of the Draft Specification of Sluice Valves.

Gear Cutting Machines for Marine Gearing. Representative: Mr. S. A. Smith, M.Sc.

A meeting to consider this important matter was held under the auspices of the British Standards Institution on the 20th July, 1944, when it was arranged to set up a drafting committee to prepare preliminary proposals for consideration by the main Committee.

Obituary.

D. G. ALLEN, Sub-Lieut.(E.), R.N.V.R. (Student 9285) was born in April, 1923 and educated at Bedford Modern School. On leaving school in the summer of 1940, he was appointed to an engineering studentship with Messrs. W. H. Allen, Sons & Co., Ltd. of Bedford. In June, 1942, with the Company's permission temporarily to suspend his studentship, he joined the Fleet Air Arm, training as an observer in England and Trinidad. He was commissioned in 1943 and appointed to an operational station, most of his time being served in the Atlantic. In June, 1944 Lieutenant Allen went out on a priority sortie and before he returned thick fog came up; in endeavouring to land on the sea the plane crashed and the crew were killed. Their bodies were recovered and buried at sea with full Naval honours. Lieutenant Allen had always been a keen sportsman and played rugby, hockey and tennis; he was a strong swimmer. At school he had been an enthusiastic scout and became a "King's Scout". He made light of trials and difficulties, and was popular among his contemporaries, his many friends finding him at all times very good company.

GEORGE R. ARMSTRONG (Member 9385) was born in January, 1904. He served an engineering apprenticeship with Messrs. Ramage & Ferguson, Ltd., of Leith, from 1920/26. From 1926 until his death he was employed by Messrs. Henry Robb, Ltd., of Leith, first as a draughtsman, until 1935, and subsequently as engineer manager. Mr. Armstrong died on the 1st January, 1945, and leaves a widow and two sons.

ROBERT BARR (Member 2809) was born in September, 1863, and died on the 28th January, 1945, at his home in Dumbarton. He served his apprenticeship as an engineer with Messrs. Paul & Company of Dumbarton and sailed in coastal vessels before going to Burma in 1886 to join the Irrawaddy Flotilla Company. He was 30 years in Rangoon, nearly half of that period in the responsible position of superintending engineer. He was a pioneer in the burning of oil fuel in merchant ships, having been asked by his Company to explore the possibilities of this development in relation to their express steamers; he travelled in the oil steamers on the Caspian Sea and on the Volga, and visited the oil fields at Baku. On his return to this country, Mr. Barr was offered, and accepted, the position of marine consultant superintendent to the Company in Glasgow. He also became energetically interested in the life of his native town; he joined the parish council, was appointed vice-chairman, and became chairman of the Townend Hospital Committee. Later, leaving the parish council for the town council, he was elected a magistrate before taking the chair as provost. Membership of the harbour board, the Territorial Force Association, and the Clyde Trust followed. He was a Justice of the Peace for the County and latterly acted in the judicial capacity of honorary sheriff. Mr. Barr is survived by an only son, his daughter-in-law and three grandchildren; the elder grandson, Lieutenant Robert Barr, is serving with the Forces in Italy.

ROBERT A. BATEY (Associate Member 4898) was born in October, 1902. He served an apprenticeship with Sir W. G. Armstrong, Whitworth & Co., Ltd., of Newcastle-on-Tyne. In 1923 he was awarded through the Institute a Lloyd's Register Scholarship and

became a student at Armstrong College, Newcastle-on-Tyne; in 1926 he obtained a B.Sc. degree with First Class Honours in Marine Engineering, and continued with research work at Armstrong College and then at Sheffield University before beginning his career in 1928 as Lecturer in Engineering at Sunderland Technical College. In 1936 Mr. Batey became Head of the Engineering Department at Stockton Technical School and Evening Institute, and from the outbreak of war he had been carrying out important research in metallurgy in the service of the Government in connection with munitions of war. He died on April 19th, 1944, following an operation.

D. K. BLAIR (Vice-President and Member 1609). See obituary on page 193 of the October, 1944 TRANSACTIONS.

THEODORE BOLDING (Graduate 9281) was born in August, 1921. He was educated first at St. Michael's College, Hitchin, and then took an engineering course at the Polytechnic, Regent Street, before commencing, in 1940, an apprenticeship with Messrs. J. Samuel White & Co., Ltd., of Cowes. In February, 1942 he left the Company to join the Royal Air Force and towards the end of the summer went to Canada for training; he returned to England in the autumn of 1943 and was appointed to Coastal Command as a navigator on operational flights. Shortly afterwards he was killed when his aeroplane crashed in this country.

WILLIAM C. BOTCHERBY (Member 7750) was born in January, 1896. He served an apprenticeship with Messrs. McKie & Baxter from 1911/14 and then, after interruption due to the first world war, from 1919/20. In February, 1920 he entered the service of the Anglo-Saxon Petroleum Co., Ltd. as fifth engineer, and in due course obtained his First Class Steam and Motor Certificate. He was employed on various vessels in that Company's fleet, mostly in Eastern waters, gaining steady promotion until in July, 1931 he became a chief engineer. In March, 1938 Mr. Botcherby was transferred to the shore staff in London and at the beginning of the following year was appointed Superintendent Engineer at Hongkong. He was transferred in September, 1941 to the post of Assistant Superintendent Engineer at Suez; arriving there at the height of the Middle East campaign, Mr. Botcherby's work during the next 18 months constituted a valuable contribution to the war effort, and high tributes to his services were paid by the M.O.W.T. representative and other officials in that area, whilst from the Company's point of view a most loyal and efficient senior engineer was lost in the deplorable accident which brought a promising career to an untimely end, and which is described in the notice of the death of Mr. F. E. Warren on page xvii, who was killed at the same time.

PETER CAMPBELL, Lieut.(E.), R.N.R. (Association Member 6669) was born in December, 1910. He was educated at Paisley Grammar School and the Wm. B. Barbour Academy and, while serving his apprenticeship with Messrs. Wm. Simons & Co., Ltd. of Renfrew from 1927/31, attended the Paisley Technical College evening classes. On completion of his apprenticeship he went to sea as a junior engineer in ships of the New Zealand Shipping Company, obtaining his First Class Motor Certificate in 1938. He was then engaged as an engineer surveyor with the London & Lancashire Insurance Co.

Mr. Campbell volunteered for service in the Royal Naval Reserve and in September, 1942 was appointed Lieutenant(E.) to the frigate H.M.S. "Blackwood". On June 15, 1944 he was reported missing, presumed killed.

F. G. CHAPMAN (Member 6900) was born in May, 1904, and served an engineering apprenticeship with Messrs. Holbrook & Sons, Ltd., of Stratford from 1920/25. He was educated at Leyton Technical College. For short periods he was employed by Messrs. John G. Kincaid & Co., Ltd., of Greenock, and Messrs. Readhead & Dry's Tugs, Ltd., of Newcastle. He went to sea as junior fourth engineer in May, 1925, was appointed chief engineer in August, 1935, and continued in this position until his death on 15th September, 1944. The whole of Mr. Chapman's nineteen years at sea were spent in the oil tanker fleet owned by Messrs. C. T. Bowring & Co., Ltd. He was accidentally drowned in New York Harbour; his vessel, during a severe gale, had been in collision with another ship whilst at anchor and Mr. Chapman is thought to have fallen overboard whilst investigating the damage. Deep regret has been expressed by the captain and officers of the ship on the loss of a companionable and loyal shipmate, and sympathy for the widow and young children in their sad bereavement.

NOEL W. COE, Lieut.-Col., R.E. (Member 8288) was born on December 6th, 1899, and died on July 10th, 1944 in hospital at Leicester, following an operation for appendicitis. He left Manchester Grammar School in 1918 to serve an apprenticeship of three years with Messrs. B. & S. Massey, Ltd. of Openshaw, and to take a part time day course at the Manchester College of Technology. In 1921 he commenced a B.Sc. degree course in Mechanical Engineering at the College and passed his final examinations in the Honours Division in 1924. He then returned to Messrs. B. & S. Massey, Ltd. for two years as Sales Engineer. In 1926 he was appointed Assistant Lecturer in Mechanical Engineering at the Manchester College of Technology, and two years later obtained his M.Sc. degree with a thesis on "The Efficiency of Steam Nozzles as Affected by Shape and Steam Temperatures". In 1932 Colonel Coe was appointed lecturer in Mechanical Engineering at Manchester University where he remained until in 1936 he became Head of the Engineering Department of Cardiff Technical College. His growing conviction of the danger threatening this country from abroad led him to serve in the Royal Engineers Special Reserve; he was successively 2nd Lieut., Captain and Major, and from 1928 commanded a company. In July, 1939, as a result of this experience, he was given command of a Field Company in the Territorial Division, which was followed by an appointment as C.R.E. of a group of West African Works Companies in Nigeria with the rank of Lieut. Colonel, and eventually by his selection as Principal Staff Officer to the Chief Engineer at G.H.Q. and finally his promotion to Chief Engineer with the rank of Colonel. After an eighteen months' tour in this capacity, he returned to England on leave, receiving later a Home Forces appointment, his career being cut short by his sudden death while he held this engagement. Colonel Coe was a Member of the Institution of Mechanical Engineers; for a time he was Secretary of their N.W. branch, and during the time he lived in Cardiff he was Joint Secretary of the S.W. branch. There have been many tributes to Colonel Coe's ability and character, his humour and generous human understanding, not the least moving and sincere having come from the native servant who had responded with such devotion to his kindness during the years in Africa. Colonel Coe married in 1930, and leaves a widow and two children.

J. D. CONSTABLE (Member 9415) was born in July, 1904. His apprenticeship was served with Messrs. Clover, Clayton & Co. of Birkenhead from 1920/25, after which he was engaged at sea in vessels of the Bibby Line from 1925/42, attaining the rank of senior 2nd engineer. During this time he spent 2½ years on foreign service in a troopship and served throughout the African campaign, being discharged in 1942 on medical grounds. He then obtained a position as Chief Steam Engineer at the Burghfield Royal Ordnance Factory, Ltd. at Reading, and in August, 1943 was appointed Steam Development Engineer with the Midland Tar Distillers, Ltd. of Oldbury. On 21st July, 1944 Mr. Constable entered West Bromwich Hospital for an operation for the removal of his tonsils, but died under the anaesthetic. He leaves a widow and one daughter of eleven years.

JAMES M. DEWAR (Vice-President and Member 2859). See portrait and obituary on page 264 of the January 1945 TRANSACTIONS.

W. E. DICKINSON (Member 2739) was lost at sea as a result of enemy action during the early months of 1944. He was born in Hull and educated at the higher grade school, Craven Street, and the technical college, and served an engineering apprenticeship first with

Messrs. Earle's Shipbuilding and Engineering Co., and then with Messrs. Rose, Down & Thompson. When he was 21 he went to sea as a junior engineer, obtained his First Class Certificate at the age of 25 and in the same year sailed as chief engineer. He served at sea throughout the 1914/1918 war, and subsequently joined the British Tanker Co., Ltd., in whose ships he had sailed for over 25 years at the time of his death. Mr. Dickinson was awarded the O.B.E. in the 1943 New Year Honours, and in September of that year he was specially commended for brave conduct when his ship encountered the enemy. His widow has now received on his behalf two medals for bravery and two oak leaves.

A. M. EVERARD (Member 4684) died suddenly on the 6th April, 1945, at the age of 53. He was the youngest of the family of three brothers and a sister who keep up the family tradition in the business of Messrs. F. T. Everard & Sons, Ltd., of Greenhithe. His father, the late Mr. Fred T. Everard, showed his great shrewdness in many directions, but in nothing more than his choice of special lines for his sons. Alfred was made the engineer, for although the firm then owned nothing but barges the father had foreseen the possibilities of the internal combustion engine, and the son followed his ideas with quiet enthusiasm. As soon as he had completed his apprenticeship with Messrs. Plenty & Co., of Newbury, young Alfred returned to the family yard at Greenhithe and had much to do with the building and engining of the "Grit", one of the first motor coasters under the British flag. She was sunk in the last war, but experience gained with her was useful and, when he returned from his war years in the Royal Naval Air Service, young Everard threw himself into the work of improving the type with enthusiasm. He was prominent among British engineers who steadily contested the growing supremacy of the Dutch coaster, and perfected the British type, although his retiring disposition, and reluctance to push himself forward in any way, prevented his getting all the credit that he deserved outside a comparatively small circle. He was not only keenly interested in the technical problems of improving the type, for which the present Everard fleet is sufficient evidence, but also paid great attention to the still greater problem of keeping the ships running under coastal conditions. Most of his work, therefore, lay in the Greenhithe yard, but he was also a director of the Newbury Diesel Company and joint managing director of Messrs. Crabtree (1931) Limited of Great Yarmouth. Mr. Everard was an underwriting member of Lloyd's and President of the Greenhithe Conservative Working Men's Clubs. His private interests, apart from sport, in which they ranged from barge racing to village cricket, were principally connected with amateur cinematography, good fellowship and social work.

NILS A. FIDJE (Member 5471) died in Norway on 21st April, 1944, aged 51. He served an engineering apprenticeship in the Norwegian Naval Yard and sailed for six years in steamships and submarines of the Norwegian Navy, obtaining a Chief Engineer's Certificate during this period. He spent two years at a technical college in Norway and a further year at King's College (then Armstrong College), Newcastle-on-Tyne. In 1920 he joined the firm of Messrs. Arnesen, Christensen & Smith, Ltd., of Newcastle-on-Tyne and Oslo, and after spending three years in the marine engine design office of Messrs. Wm. Doxford & Sons, Ltd. of Sunderland from 1921/4, he rejoined the former firm, becoming a director in 1935 and continuing in that capacity until his death.

ENGINEER VICE-ADMIRAL SIR GEORGE GOODWIN, K.C.B., LL.D. (Past President). See portrait and obituary on page 57 of the April 1945 TRANSACTIONS.

JOHN GRAY (Member 5493), aged 54, died after a long illness on 21st February, 1944, at his home in Buenos Aires. He was born at Stranraer, was educated at George Watson's College, Edinburgh, and served an apprenticeship with Messrs. Dunsmuir & Jackson in Govan. He served as a seagoing engineer for eight years and obtained a First Class Board of Trade Certificate before he settled, about twenty years ago, as a consulting engineer in the firm of Messrs. Esplen, Swainston & Wilson, Ltd., of Buenos Aires. Mr. Grey had married in 1932 and leaves a widow and a young son and daughter.

WILLIAM GREY (Member 9520) was born on the 19th October, 1908. His apprenticeship was served with Messrs. Swan, Hunter & Wigham Richardson, Ltd., from 1924/29 and thenceforth he was engaged in various companies as a seagoing engineer. From 1935 Mr. Grey was employed by Sir William Reardon Smith & Sons, Ltd., until 1938 as 3rd engineer, from then until December, 1941, as 2nd engineer, and as Chief Engineer of the s.s. "Quebec City" until she was lost by enemy action in September, 1942. Finally, he was appointed Chief Engineer of the m.v. "Cornish City" and died in July, 1943, when this vessel also was lost by enemy action.

GEORGE HERON (Member 3066). See portrait and obituary on page 49 of the March 1945 TRANSACTIONS.

F. C. HODGE (Member 7776) was born in July, 1885. He served an engineering apprenticeship at the Albert Dock Engine Works from 1900/1905; from 1907/1942 he was engaged as an engineer at sea. In 1914 he joined the Nelson Line, and continued in their service until in August, 1932 he was appointed chief engineer with the Royal Mail Lines, Ltd. He was thus employed in various steam and motor vessels until August, 1942, when his ship was torpedoed and sunk. As a result of this experience Mr. Hodge's health failed; he was retired in April, 1943, and died on 1st November, 1944.

T. S. HODGSON (Associate 9087) was born in Australia in August, 1914. He served an apprenticeship with Messrs. J. Jefferies of Avonmouth from 1931/6. In 1938 he joined the New Zealand Shipping Co., Ltd. as 10th engineer of the m.v. "Opawa", and after obtaining his Second Class Motor Certificate was appointed to the r.m.s. "Rangitani" as Fourth Engineer, in which capacity he was employed when the vessel was sunk by enemy action in November, 1940. Mr. Hodgson was taken prisoner but later released on parole and landed on the island of Emirau, subsequently returning to Australia and thence to the United Kingdom. He obtained an appointment as draughtsman with the Bristol Aeroplane Company, but his ambition was to return to sea as soon as possible. Unfortunately, Mr. Hodgson, who had been extremely ill for some months, died in Bristol on 31st August, 1944.

BERNARD J. IVES (Member 4246) was born in May 1873. He served an apprenticeship in wood shipbuilding, beginning in 1886, with Messrs. H. Fellows & Son of Great Yarmouth, and then with Messrs. William Denny & Brothers of Dumbarton in iron and steel shipbuilding, continuing with the latter firm for eight years after his apprenticeship was complete. In 1897 he left the Clyde for the Tyne and for the next two years was employed first with Messrs. C. S. Swan & Hunter, Ltd., and then with the Northumberland Shipbuilding Co., Ltd. Mr. Ives then served for 28 years with Lloyd's Register of Shipping, being appointed ship surveyor in 1899, principal surveyor in 1908, and Assistant to the Chief Ship Surveyor in 1922. He set up in private practice as a consulting marine engineer and naval architect in 1927, among his clients being a number of the leading Italian shipping companies. Mr. Ives was a Fellow of the Society of Consulting Marine Engineers and Ship Surveyors and a Member of the Institution of Naval Architects.

LOUIS J. JACKSON (Member 9641) was born in October, 1908. From 1928/38 he served as a seagoing engineer in various companies, obtaining his First Class Board of Trade Certificate and sailing finally as third engineer. In 1938 he was Assistant Installation Manager with the Shell Company at Bangkok for five months and was then appointed Assistant Chief Engineer at the Bukan installation in Singapore where he stayed until 1942, escaping to Egypt from the Japanese via N.E.I., Colombo and India. In Egypt he continued in the service of the Shell Company, doing valuable work not only on their behalf but also in co-operating as technical adviser to G.H.Q. of the Middle East Forces in Egypt, Benghazi, Tripoli and Sicily. Having received glowing reports from all with whom his work brought him into contact, the Company particularly regretted his sudden death, through a ruptured duodenal ulcer, on 25th December, 1943, in Suez.

R. W. JOHNSON (Member 7877) was born in December, 1884. From 1900/05 he served an engineering apprenticeship with Messrs. Palmers Shipbuilding & Engineering Co., Ltd., of Jarrow-on-Tyne. His seagoing experience was gained in vessels belonging to Sir R. Ropner & Sons, Ltd., and Messrs. T. & J. Brocklebank, Ltd., and at the early age of 24 years he obtained an Extra First Class B.o.T. Certificate. For several years he was on the staff of the experimental tank at the works of the Parsons Marine Steam Turbine Co., Ltd., and in 1921 he joined the firm of Messrs. Harland & Wolff, Ltd., at Southampton. He remained in Southampton until 1929 and during these years he also lectured at Hartley University College. In 1929 Mr. Johnson was transferred to the firm's works at North Woolwich as outside engineering manager, a position he held until his death on the 17th March, 1945: he had been taken ill in October, 1944, and suffered greatly during the next six months. Mr. Johnson leaves a widow and two children, a boy and a girl.

ZYGMUNT KUSKE (Member 9249). Officer of the Polish Merchant Navy, died after a brief illness in Edinburgh on the 13th December, 1944, at the age of 39. He received his engineering training at the Szkoła Morska in Tczew, Poland, and served as second lieutenant in

the Polish Navy. After completing his Naval service he transferred to the Merchant Fleet. In 1930 he joined the Gdynia America Line and for the past eight years held the rank of chief engineer. Since the outbreak of war in 1939 he served continuously at sea and took part in many landing operations. In 1940 he was decorated with the Polish Krzyz Walecznych and the British M.B.E. for operations in Norway. He also took part in the landing operations in North Africa, Sicily and Southern France. Mr. Kuske was highly respected for the courage, ability and devotion to duty which made him a man of outstanding quality; his untimely death is a sad loss to those who knew him, and particularly to the Polish Merchant Navy.

NORMAN C. MACDONALD (Member 4141), Senior Engineer and Ship Surveyor to Lloyd's Register of Shipping for New South Wales, died after a long illness on 8th December, 1943. He was a native of Sydney and served his apprenticeship with the Pacific Foundry there; later he came to England where he gained further experience with the Wallsend Slipway & Engineering Co., Ltd. and Fairfield's Shipbuilding & Engineering Works. Then he entered the service of Messrs. Lamport & Holt, Ltd. in the Liverpool-South American trade; after obtaining his First Class Board of Trade Certificate, he joined Messrs. Melburn & Company's Port Line of steamers trading to Australia, and was one of the first Australians to obtain an Extra First Class Certificate in South Shields. In 1919 Mr. Macdonald joined the Queensland Marine Board as Engineer Surveyor at Townsville, and remained there until 1923 when the Commonwealth Navigation Service was formed, which service he joined and was stationed at Brisbane for a number of years, transferring to Sydney in 1934 as Assistant Senior Engineer and Ship Surveyor. In 1938 he received his final promotion to Senior Engineer and Ship Surveyor. Mr. Macdonald leaves a wife, son and daughter.

JOHN MACKINTOSH (Member 8202) was born on 6th January, 1872. After serving an engineering apprenticeship with Messrs. R. Napier & Sons of Glasgow from 1891/6, he continued in their employ for a further year as draughtsman. From 1897/1901 he was engaged as draughtsman with Messrs. Alexander Stephen & Sons, from 1901/2 with The Caledon Shipbuilding & Engineering Co., and from 1902/26 as Chief Draughtsman, Manager and Managing Director with Messrs. Bow, McLachlan & Co., Ltd. From 1926 until his death on 7th July, 1944, Mr. Mackintosh was in business in Glasgow as a consulting engineer and naval architect. He was a Member of the Institution of Engineers and Shipbuilders in Scotland.

HOMER MCCRICK (Member 3633) was born in February, 1889. From 1905/10 he was apprenticed first with Messrs. D. H. & F. Reid of Ayr and then with Messrs. Grant & Ritchie, Ltd. of Kilmarnock. Three years drawing office experience followed with The Mersey Engine Works, Messrs. Howden & Co., Ltd. and Messrs. Harland & Wolff, Ltd., of Glasgow. For five years he served as an engineer at sea with The Harrison and Johnston Lines of Liverpool and The Glen Line, Ltd., of London, of which two years were spent in Diesel engined vessels, and during which time he obtained his First Class B.o.T. Certificate with Motor Endorsement. For 2½ years, from 1919, he was Marine Surveyor to Messrs. Ritchie & Bisset, Consulting Engineers and Marine Surveyors at Singapore. In June, 1922, he was appointed a Ship and Engineer Surveyor to Lloyd's Register of Shipping, serving with the Society in Glasgow until 1926, in Leningrad until 1930, in Newcastle until 1932, on the London outdoor staff until 1936, and finally in Birmingham as Senior Surveyor for the district, where he remained until his death in June, 1944. In 1920 Mr. McCrick was awarded the Denny Gold Medal by the Institute for a paper on Diesel engines. He leaves a widow, one son and two daughters.

COLIN McDONALD (Member 6465), born in February, 1903, attended George Heriot's School in Edinburgh from 1915/18. He was then apprenticed to Messrs. Ramage & Ferguson, Ltd., of Leith, from 1919/24 and during these years he also attended evening classes at the Heriot Watt College. In November, 1924, he first went to sea as Fifth Engineer of The Ellerman & Bucknall Steamship Company's "Lorenzo" (later known as the "City of Christchurch") and only left her to take the examination for his Second Class Certificate in December, 1927. In May, 1928, he rejoined the Company and was appointed to the "City of Kimberley" as Third Engineer, continuing in that position until he left to obtain his First Class B.o.T. Certificate. For some months he was Third Engineer of the steam yacht "Naz Periwer", built by Messrs. Ramage & Ferguson, Ltd., for Prince Yusef Kamal, but except for this appointment, and due to the acute industrial depression, he was forced into employment unconnected with engineering until June, 1933, when he secured a temporary appointment with the Currie Line of Leith, as third engineer. From

October, 1935, he was permanently employed by this Company in various ships as second and chief engineer. Early in 1942 Mr. McDonald was sent to the U.S.A. to join a ship being built there, the "Alden Gifford"; she sailed on coastal trips there for a year before coming to England, and the Currie Line were congratulated by the Ministry of War Transport on the help and co-operation they had received from the Chief Engineer. It was while serving in this capacity that Mr. McDonald lost his life at sea by enemy action, on 7th September, 1944.

WILLIAM McLAREN (Member 1150). See portrait and obituary on page 58 of the April 1945 TRANSACTIONS.

WILLIAM MACNAUGHTON (Member 8474) died in Bombay on 4th April, 1943. He was born in January, 1900, and served an engineering apprenticeship with the Harvey Engineering Company of Glasgow from 1914/19, continuing as draughtsman with the same firm until 1921. From 1922/35 he was engaged as a seagoing engineer with the British India S.N. Co., Ltd., and then obtained an appointment as Assistant Engineer in the drawing office at Mazagon Dock, Bombay, a position in which he continued until his death.

G. S. MORRIS (Member 1062) was born in New Zealand in March, 1869, and educated and apprenticed there as an engineer with the firm of Messrs. Andersons, Ltd. He first went to sea as a refrigerating engineer in the New Zealand Company's clipper "Turakina", and one of his most cherished memories of that period was of the occasion when they made a record passage from Wellington to Falmouth via Cape Horn in 69 days 14 hours. Sea service with the African Royal Mail Line, the Hain Line and Sir R. Ropner & Co., Ltd. followed, and he sailed as chief engineer before returning to New Zealand in 1900 to become dredge master on gold dredges on the Karwarra and Molyneux Rivers in Olaga province. In 1904 Mr. Morris was appointed by the Lyttelton Harbour Board as Superintendent Engineer of the bucket dredge "Manchester", and in 1912 of the drag-suction dredge "Canterbury"; for thirteen years the latter dredge was employed in dredging the channel in the outer harbour, the spoil being used to fill in the Naval Point reclamation, an area of 72 acres. On his retirement in 1934, Mr. Morris chiefly interested himself in his work as councillor on the Lyttelton Borough Council, being deputy mayor for a period and chairman of the Works Committee for many years. He is survived by his wife, three sons and two daughters; two sons, Corporals Frank and Roger Morris, of the New Zealand Division, were wounded at Crete and El Alamein respectively and are now prisoners of war in Germany, the third being employed in Lyttelton and a member of the Home Guard there. One daughter is a nursing sister who saw active service in Spain throughout the revolution and is now engaged on child refugee work in England; the second daughter is serving as a corporal in the New Zealand W.A.A.F.

CARL E. PETERSEN (Vice-President and Member 7137). See obituary on page 29 of the February, 1945 TRANSACTIONS.

JOHN PORTANIER (Member 9639) died in Malta on March 24th, 1944. He was born in May, 1871, and served as an engineering apprentice with Messrs. Alex. Wilson & Co. of London from 1888/91, and with Messrs. W. H. Allen & Co. of Westminster from 1891/3. From 1893/6 he was employed with Messrs. George Wailles & Co., engineers and millwrights; from 1896/7 with Messrs. Maudslays, Sons & Field; from 1897/8 as engineer in charge of machinery at Watney's Distillery; from 1898/1901 with the Patent Stopper Box and Stamp Company; and from 1908/16 as engineer in charge with Messrs. W. G. Cousins & Co., cigarette manufacturers. From 1916/20 he served at sea in the M.F.R. and R.N.R. as Eng'r. Sub-Lieutenant and 2nd Eng'r. in the former and Eng'r. Lieutenant in the latter. From 1921/36 Mr. Portanier was engaged as a marine engineer with the Customs and Excise Department in Malta, and from 1936 until his death he was a Board of Trade Surveyor of Ships in the Island.

ENGINEER VICE-ADMIRAL SIR GEORGE PREECE, K.C.B. (President and Member 7889). See portrait and obituary on page 263 of the January, 1945 TRANSACTIONS.

W. T. SEATON (Member 2103). See portrait and obituary on page 58 of the April 1945 TRANSACTIONS.

ADAM SIMPSON (Member 6135) was born in Glasgow on September 13th, 1880. He was educated there at the Allan Glen School and the Royal Technical College. He served an engineering apprenticeship with Messrs. Barclay, Curle & Co., Ltd. which was followed by a year or two on turbine work with The Parsons Marine Steam Turbine

Co., Ltd. Then for fifteen years he was employed by Messrs. John Brown & Co., Ltd. of Clydebank, first as draughtsman, then Assistant Works Manager and finally Works Manager. In 1921 he came to London as a consulting engineer, and later became a Director of Clyde & Co., exporters and importers. Mr. Simpson married Flora Drummond, a colleague of Mrs. Pankhurst and later founder of the Women's Guild of Empire, by whom he is survived. He was killed in London in July, 1944, when his home was completely demolished by a flying bomb.

L. F. P. SORGE (Member 4125) served an apprenticeship with Messrs. Peter Brotherhood, Ltd. of Peterborough. From 1908, until his election as a member in 1920, he was employed as a seagoing engineer. He died on October 19th, 1944.

R. E. STRUB (Member 7805) was born in Switzerland of Swiss parents in July, 1888. He was educated at the Technical High School, Zurich, and the University of Karlsruhe; he was engaged for a year, in 1906, as Works Student with Messrs. Kendall & Gent, Ltd. of Manchester and served other periods of apprenticeship at the Foundry of Giesserei, Berne, and Messrs. Ryffel, Limited, Staefa. From 1911/14 he continued his studies at the Charlottenburg Technical High School where, in his last year, he was appointed assistant lecturer. In 1915 he was engaged in the design of petrol and compression ignition engines with Motorenfabrik Deutz of Cologne and from 1917/19 he was their chief designer. From 1919/26 he was research engineer to the Swiss Locomotive and Machine Works at Winterthur. Then followed fourteen years with Messrs. W. H. Allen & Sons, Ltd., of Bedford as Chief Engineer of their oil engine department. Mr. Strub joined the firm of British Auxiliaries, Limited in Glasgow in 1940, where he was Chief Consultant and Head of the Design Department. Later it was arranged that he should come to London to the office of Messrs. R. & H. Green & Silley Weir, Ltd., where he acted in the capacity of liaison between the British Auxiliaries Board in London and the Works, and where he commenced to build up a business as Diesel Consultant to a number of shipping companies; he was engaged in this work until his death on August 4th, 1944. Mr. Strub was a member of the Institutions of Mechanical Engineers and Naval Architects. From the beginning of the present war he was an intensely enthusiastic member of the Home Guard (Intelligence Section) and continued to attend parades until his final illness, even against medical advice.

ARCHIBALD WALKER (Member 6735) died in July, 1944, as a result of a fall of 40 feet into Newport Dock, Monmouthshire. He was born in March, 1898, apprenticed with Messrs. H. & C. Grayson, Ltd. and spent the greater part of his life at sea; he obtained both 1st Class Steam and Motor Certificates. In February, 1942 he was appointed to the staff of the Ministry of War Transport and died as described while carrying out his duties as an Engineer Surveyor.

F. E. WARREN (Member 8148) was born in August, 1896. He served an apprenticeship with the East Devon Engineering Works from 1910/14 and in 1917 began his sea service; he obtained a 1st Class Board of Trade Certificate with Motor Endorsement. In March, 1921 he joined the Anglo-Saxon Petroleum Co., Ltd. as 4th engineer and within three years had been appointed chief engineer whilst serving with them in the Far East with the subsidiary company at Curacao. In September, 1925, he was appointed a superintendent engineer in the British Isles. Early in 1939 Mr. Warren was selected for the appointment of Resident Superintendent Engineer at Suez, a position which, with the outbreak of war, became one of vital importance. He faced the heavy responsibilities involved with determination and courage and at the time of his tragic death was respected throughout the Company's fleet as well as by the Ministry of War Transport representative and shipping circles in the Middle East. He was recognised as having played a valuable part in the Middle East campaign by virtue of his untiring efforts to keep the Group's tanker vessels running efficiently in that important war theatre. On May 18th, 1943, Mr. Warren and his assistant, Mr. Botcherby (see obituary on page xiv) were proceeding on board a tug to a tanker which had foundered and which blew up as they approached, all on board the tug being killed as a result of the explosion.

J. A. WELSH (Member 7947) was born in March, 1908. He served an engineering apprenticeship with Messrs. Milne & Robb of Peterhead from 1924/29 then, joining the British India S.N. Co., Ltd. as a junior seagoing engineer, he served in their ships until his death early in 1944, at which time he was engaged as 2nd engineer in a motor vessel.

C. H. WILLIAMS (Associate 9736) was born on the 28th December, 1921. His apprenticeship to engineering was served with Messrs. Partridge Jones & John Paton of Abertillery from 1937/41 and was immediately followed by service at sea. He obtained a 2nd Class Ministry of War Transport Certificate in May, 1943, and the following December passed the first half of the examination for

the First Class Certificate. In January, 1944 he sailed as 2nd Engineer of the s.s. "Empire Opossum" and died suddenly and tragically in Buenos Aires at the end of July. Mr. Williams' employers and colleagues regret the loss of a keen engineer and a good shipmate; he is survived by his wife and one child, a daughter who was born a few days after his death.

15th February, 1945.

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, 1944, and we set out below our observations.

(1) The Revenue Account shows a surplus of £679 5s. 9d. as compared with £1,376 17s. 1d. last year, a decrease of £697 11s. 4d.

(2) The Gross Revenue was £10,603 0s. 1d., an increase of £170 19s. 6d. made up as follows:—

	Decrease.	Increase.
	£ s. d.	£ s. d.
Subscriptions	28 8 1	—
Entrance Fees	—	148 5 0
Examination Fees	11 10 0	—
Advertisements	—	104 11 11
Rent Receivable	8 15 1	—
Interest	26 5 7	—
Contributions towards Expenses for use of Hall and Library	—	1 10 0
Sundry Sales... ..	8 8 8	—
	83 7 5	254 6 11
<i>Deduct:</i> Decrease	83 7 5
		£170 19 6

(3) Expenditure charged to Revenue Account amounted to £9,683 6s. 4d., an increase of £628 2s. 10d., made up as follows:—

	Decrease.	Increase.
	£ s. d.	£ s. d.
General Expenses	—	3 13 5
Rent, Rates, etc.	—	103 0 9
House Account	—	78 2 3
Repairs	—	27 1 5
Insurance	30 9 4	—
Transactions	—	399 2 7
Transactions (Bound Volumes) ...	9 18 6	—
Library and Reading Room Account	43 5 6	—
Depreciation	1 19 0	—
Heat Engines Prizes	14 3	—
Silver Medal... ..	—	3 9 0
Transfer to Pension Fund... ..	—	100 0 0
	86 6 7	714 9 5
<i>Deduct:</i> Decreases	86 6 7
		£628 2 10

There has also been charged to Revenue Account an amount of £240 8s. 0d. representing the difference between the original cost of £6,000 5% Conversion Loan 1944/64 and the sum received on its redemption by the Government.

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

	£ s. d.
Increase in Expenditure	628 2 10
<i>Less:</i> Increase in Income	170 19 6
	457 3 4
<i>Add:</i> Loss on Redemption of 5% Conversion Loan	240 8 0
	£697 11 4

(5) "The Running and Maintenance of Marine Machinery" Handbook Account.

In accordance with the Council Minute of 3rd July, 1933, £53 16s. 4d. has been paid to the Guild of Benevolence. Further Sales, less Expenses, during the year amount to £17 11s. 1d.

(6) "Electricity Applied to Marine Engineering" Handbook.

Sales, less Expenses, during the year amount to £16 10s. 11d. In accordance with the Council Minute of 30th March, 1942, £51 19s. 11d. has been transferred to the Guild of Benevolence.

(7) "Naval Architecture and Ship Construction" Handbook.

The Profit on Sales during the year amounts to £109 10s. 7d.

(8) Investments.

The Market Value at 31st December, 1944, of the Institute's free Investments standing in the books at £22,102 19s. 2d. was £22,362. During the year, £6,000 5% Conversion Loan 1944/64 was redeemed at par, the proceeds being re-invested in 3% Savings Bonds "B" 1960/70, together with a further £2,000 out of general funds.

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

Yours faithfully,

WEST & DRAKE, Chartered Accountants.

Institute Luncheon.

The Annual Luncheon was held at the Connaught Rooms, Great Queen Street, London, W.C.2, on Friday, March 9th, 1945, following the Annual General Meeting. The assembly numbered nearly 600 members and guests.

The President, Sir William C. Currie, was in the chair, and the official guests included: Alderman Sir Frank S. Alexander (The Rt. Hon. The Lord Mayor), The Rt. Hon. Lord Rotherwick, J.P., D.L. (Chairman, Clan Line Steamers, Ltd.), Admiral Emory S. Land (Administrator of U.S. War Shipping Administration), Alderman Sir George T. Broadbridge, Bt., K.C.V.O., J.P., M.P., Sir James Lithgow, Bt., M.C., T.D., J.P. (Controller of Merchant Shipbuilding & Repairs), Alderman Sir George H. Wilkinson, Bt., Vice-Admiral Sir W. F. Wake-Walker, K.C.B. (Third Sea Lord and Controller of the Navy), Sir Cyril Hurcomb, K.C.B. (Director-General, Ministry of War Transport), Sir Amos L. Ayre, K.B.E. (Chairman, Shipbuilding Conference), J. W. Dulanty, Esq., C.B., C.B.E. (High Commissioner for Eire), Major General H. B. Vaughan, Jnr. (U.S. Army), Eng. Vice-Admiral J. Kingcome, C.B. (Engineer-in-Chief of the Fleet), F. W. Wentworth-Sheilds, Esq., O.B.E. (President, Institution of Civil Engineers), Major John M. Henderson (Acting Agent-General for Northern Ireland), Sir Harry Railing, D.Eng. (President, Institution of Electrical Engineers), C. S. Lillicrap, Esq., C.B., M.B.E. (Director of Naval Construction), Ernest L. Jacobs, Esq. (Chairman, Lloyd's Register of Shipping), Major W. Gregson, M.Sc. (Vice-president, Institution of Mechanical Engineers), Basil Sanderson, Esq. (Chairman, The Shipping Federation, Ltd.), The Hon. J. Kenneth Weir, B.A., C.B.E., George Barrie, Esq. (Director and General Manager, Barclay Curle & Co. Ltd.), P. G. Mylne Mitchell, Esq. (Director, Royal Mail Lines, Ltd.), F. A. Greene, Esq. (President, Institution of Chemical Engineers), Alderman and Sheriff Seymour Howard, Alderman Rupert De la Bere, M.P., G. Legh-Jones, Esq. (Director, Anglo-Saxon Petroleum Co. Ltd.), F. Stafford Clark, Esq., LL.D., J.P., John P. Taylor, Esq. (Editor, "Shipbuilding & Shipping Record"), T. Wally, Esq. ("Engineering"), J. D. C. Stone, Esq., A.C.A. (Messrs. West & Drake), W. E. Archer, Esq. (Messrs. W. Archer and Son), W. T. Boston, Esq. (Master of the Worshipful Company of Horners), A. P. Chalkley, Esq. (Editor, "The Motor Ship"), Robert Taylor, Esq. (London Editor, "The Shipbuilder & Marine Engine Builder"), W. G. D. Holloway, Esq. (General Secretary, Marine Engineers' Association, Ltd.), W. Roylands Cooper, Esq. (Assistant Editor "The Engineer"), D. E. Maxwell, Esq. (Editor, "Shipping World"), H. E. Hancock, Esq. (London Editor, "Journal of Commerce"), G. Bryant, Esq. ("Lloyd's List & Shipping Gazette"), Capt. W. H. Coombs (President, International Mercantile Marine Officers' Association), and the following representatives of Allied Merchant Navies: Mr. A. Lovgren (Norway), Capt. L. Droguet (France), Capt. J. Dabkowski (Poland), Mr. J. P. F. Mentink (Netherlands), Mr. A. J. Janssens (Belgium), Capt. J. F. Fafoutakis (Greece).

The Loyal Toasts and a Toast of "The Kings and Queens, Presidents and Governments of Allied Nations" having been honoured, **Sir James Lithgow, Bt., M.C., T.D. J.P.**, Controller of Merchant Shipbuilding and Repairs, proposed the Toast of
"THE RT. HON. THE LORD MAYOR AND THE CORPORATION OF LONDON".

He said: I remember that when I got what we call in Scotland my "lines", I was told that I was not to advertise that achievement, because it merely indicated that I had taken up a trade and had paid my way. In the country from which I come, we regard it as an honour to belong to a body which stands for taking up a trade and paying one's way, and I believe it is because the citizens of London through the centuries have devoted themselves to trade with sufficient application to be able to pay their way that the City of London enjoys such a very high reputation to-day.

Some time ago there was a Scottish shipbuilder in London trying to get an order, but he lost it through the intervention of a Moorgate Street broker. He tried to drown his sorrow, and, passing the Mansion House, he waved his arm at it and said "Half a million people, and all of them wanting commissions!" (Laughter) I think that if the people of London earn a commission they are entitled to have it, but in my lifetime this country has been involved in three nasty wars, and very large numbers of people in the City of London have been in the forefront in seeking their Sovereign's commission in order to take part in the fighting, and those that did not succeed in getting a commission were perfectly happy to serve in the ranks. All honour to them for that.

So far as the present war is concerned, not only the men but the women of London have faced the perils of war and have endured all that the war has brought upon them. Their fortitude has brought

them the admiration of the world, and has made every citizen of the Empire proud of its Capital. With such a past reputation and such a present performance, we can look forward with a certain amount of confidence to the future. The future in many ways is bright, but we have a formidable task before us, because we have to educate millions of our people to take up business and to pay their way without the old-fashioned spur to endeavour that the spectre of want over their shoulders was inclined to supply. The example set by the citizens of London, however, gives us good ground for confidence.

We have with us to-day the Lord Mayor and representatives of the Alderman and Sheriffs, who form the Corporation and who epitomise and typify in their persons the spirit of the City. It is a special pleasure to propose this Toast in view of the fact that the Lord Mayor is the Master of the Shipwrights' Company. We are a poor but honest body; we do not even own a house of our own, but that is not surprising in view of the faith that we follow. We are all honest tradesmen, either building or managing ships, and it is a very great honour for us to know that at this juncture in our country's history the Lord Mayor of London is our second Master. I give you the Toast of the Lord Mayor and the Corporation of London, coupled with the name of the Lord Mayor. (Applause).

The Rt. Hon. the Lord Mayor of London (Alderman Sir Frank Alexander), who responded, said: I feel that I have a somewhat unfair advantage over the proposer of this Toast, which has been proposed so many thousands of times that it must tax the ingenuity of even the cleverest shipbuilder to find a hole in which to insert a new rivet! (Laughter). As Sir James Lithgow has told you, I am proud to be at this moment (though only for a few weeks longer) the second Master of the Shipwrights' Company, and I am also proud to be the Chairman of the Baltic Shipping Exchange; so that even if I wished to do so I could not conceal from you the fact that I am interested in marine engineering and in all matters pertaining to ships and to those who go to sea in them.

I should like first of all to thank Sir James Lithgow for the very kind way in which he referred to me and to the Corporation, and to assure you that it is my earnest endeavour and highest ambition to uphold the prestige and the influence which I think belong to this historic office which I have the honour to hold at the moment. I am, I believe, the 622nd Lord Mayor in an office which has lasted since 1192. In the early days, some of the occupants of the post held it for a number of years. Tradition has it that the first Mayor, Henry FitzAilwyn, held the office for fifteen years, but it has been recognised in our more civilised days that such a feat would impose an unbearable strain on the human constitution. (Laughter).

In those days the Lord Mayor and the Corporation represented and spoke for the citizens of London and its merchants, bankers and brokers, and spoke for them not only in matters material and social, but politically too. I think that it is probably of great advantage to us that for a very long time any question of party political bias has been rigidly excluded from the deliberations and the policy of the Corporation of London. Perhaps partly because of that, we wield to-day, I think, a temporal influence and a moral power which are unique in the world. The Lord Mayor of London is much more than and quite different from the Mayor or Lord Mayor of any of our great cities and boroughs elsewhere in this country. These long years of history have wrapped round this office of mine a halo of romance and splendour which gives us a wonderful start, and the Government of this country, whatever their political colour, are proud and grateful to turn to the Corporation and say "There is this person or that whom we desire to honour, and we should love to do so at your expense." (Laughter).

It is, I think, one of the pleasantest tasks in life to dispense hospitality and to give happiness and pleasure, and the Corporation of London and its Lord Mayor have looked upon that as one of the great enjoyments of their life; not, I think, because we value more than others the pleasures of gastronomy or the delights of after-dinner speeches—we have to listen to too many, and perhaps we are a little bored and critical—but because I think you will agree with me that meeting together in a social and friendly atmosphere, which is best done round a board as festive as it can be made in these days of stringency, gives you the opportunity of getting to know your fellow men and to smooth and iron out those little creases and wrinkles which are apt to appear in the cleanest sheet of paper unless you take precautions. (Applause).

When I say that as the present holder of this office I shall do my best to uphold, and if possible to enhance, its prestige and influence, I hope that you will acquit me of being unduly egotistical. Nobody recognises more than I do my own limitations and shortcomings; but we have a wonderful tradition in the Corporation of

loyalty to our Chief Citizen during his year of office, and, going forward with the backing of the Corporation, and knowing, too, that when we try to play our part we in this high office will have the support of the great Livery Companies and of all those institutions such as your own, I feel that it is possible to do far more than one could possibly do as an individual without that support, and the possibilities of wielding an influence for good are almost immeasurable.

We are fighting now the most disastrous and destructive war that history has ever known, but the destruction and waste of life and of physical buildings are, in my judgement, small compared with the disastrous destruction that has been wrought upon the world by the policy and ideals of the Nazi and Fascist and Japanese rulers. They have degraded the individual. We, on the other hand, uphold the sanctity of the individual and the sacredness of home life; we believe that the State exists for the individual, and that the individual should never be the slave of the State. (Applause).

We have handed over, for the winning of this total war, our freedoms and our liberties; we have handed them over with both hands to those whom we have entrusted with the conduct of the war and with the policy of our nation. We do not grudge them those liberties which we have given them, and we do not regret that we have handed them over; but I have said before, and I hope that you will pardon me for saying it again now, that we in this City of London want to say, very politely but equally firmly, that the time is shortly coming when we shall demand those freedoms back again. (Applause). We recognise that to win this war for freedom means that we have at this moment to give up many freedoms of our own; we recognise that the complete freedom towards which we strive can be secured only by sacrificing some of our liberty of action, if that liberty of action is going to impinge on and curtail the freedom of the nation. We therefore ask for no selfish decontrol to enable us to do everything that we want to do just as we want to do it. But within the limits of that framework which I have tried to describe we say that we want the right to conduct our business and to carry on the enterprise which has made our country, and we believe the whole world, happy and prosperous; and we need to carry out our enterprises by the use of our own ability and initiative, with the least possible restriction and Government control.

It is very easy to talk about social security, and to try to plan so that everyone shall be free from the fear of want and of unemployment; but there is a very great danger, human nature being what it is, that if we make things so secure for the mass of the people we shall end by pauperising them, and that we shall take away, if we are not careful, that incentive to which Sir James Lighthow referred, of each person being able by his own enterprise to pay his own way and assume for himself those responsibilities which devolve on him and secure such rewards as he is entitled to obtain.

I think that it is appropriate that to the Institute of Marine Engineers these things should be emphasised, because in the field of scientific knowledge, and of engineering in particular, I think you will agree with me when I say that we have reached a position and attained a technical skill and progress which I venture to think would not have been possible if the whole industry had been State-controlled and State-directed.

I hope that I have not said anything that is out of place. I do not want to infringe the ground of the proposer of the Toast of this Institute; but you will perhaps be generous in your judgement of me when I end as I began, by telling you that all my life I have been allied in some way or other with marine engineering, and I feel that I have been brought still more closely in touch with it because in this gathering I see so many business and personal friends, and among them those who have been so good to two of my boys who are in the Navy, one of them a marine engineer in one of His Majesty's ships. (Applause).

Alderman Sir George T. Broadbridge, Bt., K.C.V.O., M.P.,
who proposed the Toast of

"THE INSTITUTE OF MARINE ENGINEERS"

said: It is a privilege on this annual occasion to propose this Toast. Although I confess that I have no technical knowledge of the work of marine engineers, I hope that in proposing this Toast I shall not be like the subject of the following story. Two men were discussing the eloquence of a certain public man. "You ought to hear him," said one. "I did hear him," replied the other; "I listened to him for two hours." "What was he talking about?" asked the first. "I don't know; I didn't ask him," replied his friend. (Laughter).

Those whose occupation it is to go down to the sea in ships must have the assistance of the knowledge and the technical skill of the marine engineer, and, by the latest scientific discoveries of their craft, marine engineers have during the period of this catastrophic war helped the gallant men of both the Royal and the Merchant Navies

to keep open the seven seas not only for the transport of food to keep our people alive but also for conveying men and equipment overseas for the support of our armies in the various theatres of war.

We live in thrilling times. Fresh discoveries are constantly being made, and no one can predict what to-morrow may bring forth. It is said, I believe, that a battleship begins its obsolescence from the time that it is launched, owing to the improvements in and progress of engineering since its keel was laid. I wonder what Nelson, Drake and others who won the great naval victories of the past would think if they could come back, of the complete transformation of naval and merchant shipping compared with the vessels which they knew, and which they, no doubt, considered to be the last word in up-to-date construction? But the "Nelson touch" has been renowned for more than a century in terms of strategy and tactics. Its great meaning for Britons is that nothing great was ever accomplished without taking risks, and that nations and men are great when they have the courage to risk disaster for the chance of a glorious victory. This nation has caught that great spirit and emulated that example in this present war; may it also carry us through the period of reconstruction!

This war seems to have accelerated ship construction, just as it has speeded up our general way of life, so that new ships spring up almost as quickly as mushrooms. The fact that new craft have been expeditiously completed to fill the gaps caused by enemy action has been largely due to the work of the marine engineers, and a great debt of gratitude is due to them and to the members of this Institute for their most valuable work. It must be a satisfaction to all concerned to realise that after nearly six years of war it can still be said that Britannia rules the waves!

I am to associate with this toast the name of your distinguished President, Sir William Currie. (Applause). He is new in his Presidency, but, if I may say so, he is old in the service of his country and in the service of the great industry of shipping, of which he is such an eminent representative. (Applause).

The President, who responded, said: On behalf of the members of the Institute of Marine Engineers, I thank you, Sir George, for your kindness in proposing this Toast, and I thank all of you here for the manner in which you have responded to it.

It is a matter of profound grief to us all that our late President, Vice-Admiral Sir George Preece, has died. He was so intensely keen on all the work of the Institute that he attended almost every Council and Committee meeting, and, had he lived, he would have been nominated for election as President for a third term, a record which only once before has been equalled. His death was a deep personal loss to his many friends.

The rules of the Institute are not those of Rugby football, by which the team carries on minus a casualty; rather they follow the American football plan, whereby reserves sitting on the touch-line are called up when required. By the kindness of the Council and members of the Institute I was one of the reserves, and it is thus that I have the great privilege and honour of being to-day the President of the Institute.

In a note on the history of the Institute it is stated that members are elected by the Council, who satisfy themselves as to the professional status and qualifications of the candidate. I think that the President must be exempt from this scrutiny (Laughter), for I possess none of these attributes. I admit that when I go to visit a ship I go down to the engine-room, but that is only because I like to have a yarn with those who work below decks. One often feels that passengers on a big ship give little thought to the men who make the wheels and keep them going round. How often—or perhaps one should say how seldom—after a train journey, say, to Scotland does one think of passing a word of appreciation to the engine-driver and his mate, who have brought the train safely to its destination while the passengers were sleeping peacefully in their sleeping-berths—if they could get them! Similarly, after a long voyage ending at Tilbury, Liverpool or Southampton, how often does one give a thought to the engineer officers who have kept the ship to contract time and who have seen to it that our baths are hot, that the electric lights allow us to read in bed (perhaps to the annoyance of our cabin companion!), that the refrigeration chambers are kept at the correct temperatures, and that the ventilation blowers and air-conditioning are working properly? I often wonder how many of us, when saying good-bye to a ship after a long voyage, give a thought to those who have laboured for weeks on end in the bowels of the vessel.

And yet I suppose that the engineer officer would not change his job. I read a story once of where an experiment in changing jobs was made. It was said to have taken place on a small vessel in Scottish waters. The master and the chief engineer argued one night, with drinks on the table between them, as to who had the more difficult job. "All you have to do," said the engineer, "is to ring

the telegraph; I make the ship go, and it takes an expert to work these engines". "Any fool", replied the skipper "can work engines. All you have to do is to keep steam up and turn the regulating valves as I tell you to do from the bridge. It's navigation where brains are required". The drinks were finished, and the argument ended by each trying to do the other's job next day, the skipper in the engine-room and the engineer on the bridge. They succeeded somehow in getting under weigh, but shortly afterwards the skipper heard strange noises and the engines stopped, and he shouted up the voice-pipe to the engineer "Come down! I can't get these damned engines to go". The engineer replied "Don't worry; we're aground anyhow!" (Laughter).

Of the innumerable stories of heroism at sea on the part of marine engineers in these last few years, perhaps I may be allowed to mention two. A vessel which had run the gauntlet in a Malta convoy and had successfully landed its cargo, claiming an E-boat on the way, was returning westwards when it struck a mine, a mile and a half off the North African coast, at that time hostile. Soon there was more than two feet of water in the engine-room, and it was increasing fast. It was discovered that the pressure of water was coming from No. 1 lower hold, and had forced off the manhole of the cofferdam and burst the joint. The chief engineer by sheer strength forced the manhole back into position and sat on it while another engineer fixed the manhole nuts and inserted wooden wedges. While the chief engineer was sitting on it he was up to his chest in oil and water.

A vessel in the Atlantic was torpedoed in the early hours of a November morning. The mechanism controlling the closing of the tunnel watertight door was smashed by the explosion. The two engineers on watch, though knocked down, cut and shaken by the blast along the tunnel, faced with the inrush of water made every effort to complete the closing of the door by hand. They were unable, however, to stand against the force of the water, and when it was waist-deep they were forced to abandon the engine-room. Even so one of these two men, with another of the ship's engineers, returned and endeavoured to close the door by hand-gear situated higher up in the engine-room, but the water was over the main engines and they were ordered on deck.

And so the tale could be continued indefinitely. I apologise for digressing from the strict terms of my reply to Sir George's Toast, but I felt, and I hope that you agree, that a tribute, however small, should be paid to those at sea who have been and are members of the great brotherhood of marine engineers of which the Institute is the centre.

Mention should be made of a few salient facts in the activities of the Institute during the past year. Our membership increased in 1944 from 4,231 to 4,483. A happy feature has been the admission to student membership of a number of junior engineer officers of the Royal Navy on their passing out of the Engineering College at Devonport. In the past session special interest has been aroused by the Institute's symposium on engines for post-war cargo vessels of low power. To the problem of the future recruitment and training of engineers for the Merchant Navy the Institute is applying its accumulated knowledge and experience. The Chairman of Council, Mr. S. A. Smith, has just been elected to the board of the British Shipbuilding Research Association, an appointment which gives great pleasure to the Institute and special pleasure to the management of the P. & O. Company, Mr. Smith being one of our most valued and trusted colleagues. (Applause).

In December last the Rt. Hon. A. V. Alexander, the First Lord of the Admiralty, was elected an Honorary Member of the Institute, and he much regrets being unable to be present to-day to receive the diploma and sign the roll of Honorary Members. Another interesting event during the past year was the completion of 25 years service as Honorary Treasurer by Mr. Alfred Robertson. (Applause). The Council and members felt that so long a period of service should not pass without recognition, and as a mark of their great appreciation they have presented to Mr. and Mrs. Robertson gold watches and a gold bangle. We all hope that Mr. and Mrs. Robertson will live long to see daily this token of the esteem in which they are held.

I should also like to pay a tribute to the work of the Secretary of the Institute; it is no easy job to run a lunch such as this. We are most grateful to Mr. Curling for his unflinching courtesy, energy and single-mindedness in the work of the Institute. (Applause).

"OUR GUESTS"

Mr. Alfred Robertson, C.C., Hon.M.I.Mar.E., Honorary Treasurer of the Institute, who proposed the Toast of the Guests, said: The Toast which I am now submitting to you should have been proposed by our Chairman of Council, but, for reasons of which he alone is aware, he has, in accordance with his prescriptive right, delegated that duty to me. I appreciate the honour attached thereto,

and I shall endeavour to discharge the task to the best of my ability. I shrewdly suspect, however, that the presentation of gold watches to myself and my wife, so kindly made by the members of the Council and the members of the Institute, was a very straight hint that I should use my watch to make my speech as short as possible! (Laughter).

Speaking on behalf of the Council, we give to all our guests a very hearty welcome; and that applies not only to those privileged to sit at the top table but also to the numerous friends of our members seated in what may be termed less exalted positions. I see around me the faces of so many friends who have been with us for years past that I can only come to the conclusion that the marine engineer is not such a bad fellow after all! The war has shown up in very bright colours some of his good qualities.

One of the peculiar conditions under which the Institute exists is that our sea-going members, owing to the exigencies of their calling, rarely find the opportunity to attend our social functions, even in times of peace. I am quite sure, however, that when they read our *Transactions* they too will feel honoured to know that these functions, which they can seldom attend, are graced by the presence of so many distinguished gentlemen.

The majority of the members assembled here to-day have long since finished their sea-going days and are in positions ashore, where they have undoubtedly been doing work of great national importance in the construction and repair of ships and in many allied industries. In this connection I am reminded of what one of our old members of Council, Mr. John McLaren, once said to me: "If I had my life over again, Robertson", he said, "I should never be a marine engineer; we have to work too hard. I should choose another profession, where they get double the pay for half the work". I asked what that profession would be, and he replied "There is only one, and that is the legal profession". (Laughter).

Marine engineering is a hard school, but it produces good engineers, many of whom to-day hold positions of great responsibility in shore appointments. Some of those afloat to-day will look forward to the time when they can secure appointments ashore, and they consider that membership of this Institute, coupled with their special practical experience, should help them to attain their ambition. It is for us to see that facilities are provided so that their expectations can be realised.

It would take too long to refer to all our visitors individually. The Civic Toast has already been honoured, but I should like to assure the Lord Mayor, the Aldermen and Sheriffs how much we appreciate their presence with us to-day. As a ship-owner himself, the Lord Mayor knows the value of the good marine engineer. The Rt. Hon. Lord Rotherwick, another of our guests, knows of the activities of this Institute through his brother, the late Sir August Cayzer, who was our President some years ago, and Lord Rotherwick, we know, has the interests of the Institute of Marine Engineers very much at heart.

We are all very pleased that Vice-Admiral Sir W. F. Wake-Walker, the Third Sea Lord, has agreed to reply to this Toast. (Applause). Before I rose to propose this Toast he suggested that he and I should enter into a bargain and claim that time was going on and the Toast should be eliminated. (Laughter). On behalf of our members now serving in the Merchant Navy we are proud to pay tribute to the Royal Navy and its truly magnificent work. (Applause).

We are privileged to have with us two Members of Parliament, Alderman Sir George Broadbridge and Alderman Rupert de la Bere. I have not the least doubt there will be questions concerning the interests of the marine engineer arising in the House of Commons in the immediate future. We are sure we can rely on their sympathetic assistance should the need arise.

We are also privileged to have present with us Admiral Emory Land, of the United States War Shipping Administration. (Applause). Our Secretary and some members present have very pleasant recollections of the banquet at Washington given by the American Government to the International Conference of Naval Architects and Marine Engineers in 1936, over which Admiral Land presided, and all the members of the Institute will recollect the occasion when the International Conference of Naval Architects and Marine Engineers was held in London in 1938. We had a wonderful array of friends, and some who are to-day enemies, at the Guildhall in 1938, and the Americans who were there were so pleased with the welcome they received that on the Friday they approached our Secretary and myself and said "We must reciprocate this in some way or other. We want the members of the Councils of the Marine Engineers and Naval Architects to be our guests at Grosvenor House to-morrow evening with their wives". We enjoyed the most marvellous hospitality on that occasion; although the notice was very short, they gave us everything that Grosvenor House had to offer.

We are very glad that in spite of his many and varied duties Admiral Land has found time to lunch with us to-day, and I hope that he will allow me to suggest that after Admiral Wake-Walker has replied to the Toast he may favour us with a few words. (Applause).

For the last three or four years we have invited representatives of the Merchant Navies of our Allies to be present on these occasions, and to-day we have with us representatives from Norway, France, Poland, the Netherlands, Belgium and Greece. (Applause). We give them a particularly hearty welcome, we thank them for all the help that they have rendered to this country during the last five or six years, and we sincerely hope to have their continued co-operation in the future, when peace comes. (Applause).

Vice-Admiral Sir W. F. Wake-Walker, K.C.B., Third Sea Lord and Controller of the Navy, who responded, said: I am honoured by being asked to reply to the Toast for such a distinguished gathering of guests—much against my will! As Mr. Robertson has told you, I tried to do a deal with him to cut it out, but he had not the guts to accept the suggestion. (Laughter). What is more, he refused to lend me his gold watch to see that I did not talk too long. For anything that falls from me, therefore, you can lay the blame at his door.

It is over a hundred years since steam was introduced into the Navy, much against the Navy's will. I think that the first occasion on which steamships took part in any naval action was in 1840, during the Egyptian War, when they were used against various forts which the Egyptians held. I have a print of the bombardment of Acre which shows a line of heavy battleships—three-decker wooden ships—arrayed against the port, and in the foreground, wandering about rather aimlessly, are a number of small gunboats with a gun at each end, apparently firing their guns into these unfortunate battleships. (Laughter). Although steam had been introduced for some little time into the Navy, it had not yet achieved that acceptance which it should have had!

If I may touch on a personal note, 97 years ago my grandfather took over the post which I now hold as Controller of the Navy. (Applause). I cannot compete with the Lord Mayor, with his seven hundred years of history, but we go back four hundred years, to the 1500s, in this post. My grandfather—poor man!—held the post for thirteen years—life must have been easier then! He came at an interesting time, because in 1847 the last stronghold of the Navy was stormed and it was decided to fit steam engines into battleships. If you look at it from the naval officer's point of view, there was this noisy, hissing monster, this miniature Vesuvius, which was going to be put into his ship, strewing his nice, clean decks with soot and grime and sparks—is it a matter for wonder that there was resistance to your arrival? (Laughter). However, the first ship, I suppose as a measure of reluctant admiration, was named the "James Watt". She had originally been laid down as the "Audacious", but it was then decided to fit her with engines, and they took over a 700 h.p.

engine made by Boulton and Watt and intended for a steam frigate and put it into her. That was the beginning of the rot. (Laughter). They took other ships, cut them in half, and put a miserable little engine of 400 h.p. into them.

I sometimes think that James Watt and Stephenson and the Jesuit priest who invented the internal combustion engine have a great deal to answer for. Science advances, and I am inclined to think that civilisation retreats at the same time. But we cannot stop progress, and as far as battleships are concerned we have battleships to-day of 40,000 to 50,000 tons with engines of 100,000 h.p.. That is where these men Watt and Stephenson have brought us!

War hastens development, and we are on the verge of considerable developments and changes in marine engineering. If we are going to take advantage of them, without any doubt the Navy has to devote to research far more than it did before the war, and I think that the same is true of marine engineering. It is our aim in the Admiralty that the engineering industry and industry at large should regard the British Navy as the embodiment of the best and latest that can be produced. Industry should feel that it is its responsibility to see that the British Navy has that, and it should feel pride and a part in the fact that the British Navy has it. If that is going to be possible, it is essential that industry at large should know about our problems and what we are doing to meet them. There is much to be done in that way by taking industry into our confidence and getting the benefit of all that it can give us.

This war has brought home to us once again what we are apt to neglect between the wars—that this country exists by the sea, by the Fleet and by the merchant ships and by the men who man them. If we are to remain in the forefront of progress in that respect, it is essential that the users of ships and those who man them should be examples of progress and efficiency. Efficiency is not merely a matter of material development; the man who uses what you produce is an even more important factor, and to achieve the efficiency which is essential to this country the marine engineers have a very leading role to play.

On behalf of the guests, I thank you for your hospitality. (Applause).

Admiral Emory S. Land, Administrator, United States Shipping Administration, who was greeted with prolonged applause, said: I am not only highly honoured but very much embarrassed. This idea of calling on somebody without warning reminds me of submarine warfare and V2 bombing! To be shot at with no warning is an abominable form of warfare! (Laughter). I am, however, grateful for your hospitality. This is not the first time I have been with you, and it will not be the last. Frankly, I have been almost killed with hospitality in my visit to your wonderful country. But I am not going to make a speech, because if I have not learned any other lesson in this war I have learned to beware of the Press! (Laughter and applause).

The proceedings then terminated.

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

The Eleventh Annual General Meeting of The Institute of Marine Engineers Guild of Benevolence was held in The Institute Library on Wednesday, 18th April, 1945, at 2 p.m. Mr. James Carnaghan, Chairman of the General and Executive Committees, was in the Chair, and there were present twelve members and officers.

The Chairman, in his opening remarks, said:—

"On behalf of the Guild of Benevolence I tender our sincere thanks to The Institute of Marine Engineers for their continued financial support in the form of donations from the Social Events and Publications Accounts. We are also grateful to those members of The Institute and of the Guild who have contributed or have been instrumental in obtaining contributions to the funds of the Guild.

We again appeal to those members of The Institute who have not become members of the Guild to assist our good work by joining without further delay. With the hope that they may become interested in the activities of the Guild, it may be mentioned that where under ordinary circumstances marine engineers would never expect their dependants to be in need of assistance, yet in several instances, owing to the loss of the head of the family, the dependants have been left in very straitened circumstances. In some cases the Guild has given aid in the education of children thus placed, and it is gratifying to know that the children thus assisted have in all cases proved worthy of our aid. Among recent cases the following may be mentioned:—

(a) With the assistance of the Royal Alfred Aged Merchant Seamen's Fund, the Guild has provided for a three years' course of training in Domestic Science for a girl whose father died in 1932.

(b) In the case of the son of a late Member of The Institute a special grant has been made in order to provide the necessary outfit on his entering college after winning a scholarship.

In its activities the Guild is somewhat restricted by the attitude of the Assistance Boards in those cases where the parties are receiving Supplementary Pensions; therefore, although we are anxious regarding the welfare of those parties, we can only give extra assistance in cases of special hardship. For instance, after recent enemy action, owing to her home being rendered uninhabitable, it became necessary to evacuate the invalid daughter of a late Member of The Institute. For this purpose it was necessary to hire an ambulance, and a special grant was made to cover the expenses of removal. In another instance, a widow, aged 76, whose recent severe illness had necessitated special medical attention, was assisted by a special grant.

We trust that the foregoing will induce non-members to join the Guild. Meanwhile, whether members of the Guild or of The Institute, should they become aware of cases of distress among marine engineers or their dependants, they should forward particulars to the Secretary, when the Committee will endeavour to grant relief.

During the past session Captain B. Warwick has resigned from the Committees owing to his retirement from business. It was with great regret that his resignation was accepted, because Captain Warwick had been a Member of Committee since the inauguration of the Guild and had proved of great assistance in the Committees' transactions.

In his report the Secretary mentions the loss to the Guild suffered by the death of Engineer Vice-Admiral Sir George Preece, K.C.B., late President of The Institute. Sir George was a great supporter of the Guild in and outside the activities of the Committees, and our loss in this respect is beyond words to express.

We have also lost other staunch friends in the passing of Mr. James M. Dewar and Mr. William McLaren, both steadfast supporters of the Guild".

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

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

"When I presented a few general particulars of the Guild of Benevolence finances to the Annual General Meeting of The Institute on the 9th March, I did not have exact figures from the Auditors, but had to give them as approximate only. Fortunately, the exact figures came to hand before the accounts were printed for the TRANSACTIONS, and I have been able to insert the correct figures in the Treasurer's Annual Report.

The Auditors' Certificate relating to our Accounts for the year

ending 31st December, 1944, reads as follows:— (See report on page ———).

Referring to our Balance Sheet and the assets to our Capital Funds, there are only three items which show any variation. These are as follows:—

(1) We have increased our investment in 3% Savings Bonds 1960/70, from £702 3s. to £1,422 18s. 4d. This item appears under "Free Investments".

(2) Under the account of the "John Silley Memorial Fund" we have invested the income received from Mr. H. A. J. Silley and Major B. L. Silley in 3% Savings Bonds 1960/70, thereby increasing this investment from £6,000 to £9,000.

(3) Our Revenue Funds show one item increased, i.e. 3% Savings Bonds 1960/70, increased from £797 17s. to £1,084 14s. 8d.

These show a total increase in our investments of £4,007 13s. against a total amount received from Life Membership Subscriptions, Donations to Capital (both on account of Capital Income and Expenditure Account, and Revenue Account) of £4,090 17s. 3d.

Cash at Bank and in hand is £908 5s. 8d. against £704 14s. 7d. last year.

Cash donations to Capital during the past year are considerably down, from £1,334 13s. 5d. in 1943 to £362 7s. 3d. in 1944, although over and above this a Legacy of £200 has been received, which is entered separately.

The nett result is that our Capital Account is increased by £4,153 1s. 3d., i.e. from £39,118 6s. 10d. to £43,271 8s. 3d. Included in this total is an increase of Income Tax recoverable of £96 6s. 9d.

There is a very interesting feature in our accounts, particularly as we are almost at the end of the European War and the likelihood of further damage to property being infinitesimal. This is in connection with our freehold ground rents. There was certainly a possibility of the income from this source being temporarily reduced, and I am sure you will all feel relieved to know that the income from these ground rents is only down by a fractional amount of about £10 per annum, covering only, as far as I can say at the moment, two properties. This is an exceptionally satisfactory position from our point of view. Our Ryde properties have suffered very heavy damage, but the full ground rent is continuing to be paid to us and I understand will continue so. We have, of course, no claim for compensation nor is there reason to expect any, as all Government compensation will go to the owners of the properties in the event of the latter not being reinstated in the same condition as they were in prior to bombing.

You will note from our Income and Expenditure Account that we have only received from King George's Fund for Sailors during the past year a sum of £150 as against £200 the year before and £250 in 1942.

An interesting point in our Income and Expenditure Account is that we have increased the amount of pensions distributed by £215 19s. 9d., the total for the year being £1,367 6s. 3d. This is due not to an increase in the number of claimants, but to a decision of the General Committee to increase the scale of amounts previously allowed to claimants.

The whole position with regard to the finances of the Guild of Benevolence is particularly satisfactory, and there is an almost certain prospect that I shall be able to report very shortly a further very substantial addition to our Capital funds, particulars of which I know at the moment but have no right to disclose for the time being.

I should like again to stress the desirability of all members of The Institute becoming members of the Guild—the subscription is so small that few members would feel the annual contribution, while they themselves never know when they may be in such a position as to require assistance. The cumulative effect of all our members becoming subscribers—if this could be imagined—would be an immense annual increase in the Guild's income and consequently in the usefulness of the Fund".

Mr. W. L. Nelson (Chairman of Council), in proposing the adoption of the Report and Accounts, said that it was gratifying to note that the Capital Account had increased so substantially and that the Guild as a whole was in a very sound position. It was also pleasing to note the increase in subscriptions, and the Honorary Treasurer's announcement regarding a prospective increase in the Capital funds was of special interest. He endorsed both the Chairman's and the Honorary Treasurer's appeal to all members of The Institute to

become members of the Guild. He moved the adoption of the Report and Accounts with much pleasure.

Mr. A. H. Ledger referred to the drop in the grants from King George's Fund for Sailors, and asked whether the stipulations which that organisation had made were still in force. (The Honorary Treasurer replied in the affirmative).

Continuing, Mr. Ledger said that while he was glad to note that the majority of the recipients had received increases in their grants, some had received less. Among those was one in whom he was specially interested, being intimately acquainted with the distressing circumstances of the case. In this case the grant in 1944 was substantially less than the amount allowed in 1943. He offered to contribute one-third, if the Committee would agree to restore the other two-thirds, of the deficit in the 1944 grant.

With these observations, he supported Mr. Nelson's remarks and had pleasure in seconding his motion that the Report and Accounts be adopted.

The Chairman said that the case to which Mr. Ledger had referred had from time to time received the Committee's very earnest and sympathetic consideration, and they were under the impression that the grant was commensurate with the circumstances. However, the Committee would look further into the matter; they would not wish to draw upon Mr. Ledger's very kind assistance, as the state of the Guild's funds rendered this unnecessary.

The motion for the adoption of the Report and Accounts was carried unanimously.

Mr. C. J. Hampshire proposed that Mr. J. Carnaghan be re-elected as Chairman of the General Committee for the ensuing year. They all knew that Mr. Carnaghan had the interests and welfare of the Guild very much at heart, and he, the speaker, did not think the Chairmanship could be in better hands. Mr. Carnaghan had carried the Guild through several of the most dangerous years the world had ever known, and the Committee would be very fortunate in having him as Chairman for the coming Victory Year.

The proposal was seconded by Mr. S. N. Kent and carried unanimously.

Mr. Carnaghan expressed his appreciation of the renewed confidence in his conduct of the Executive Committee's business, and said that he would continue to carry out the duties of his office to the best of his ability.

He proposed that the following nominees be elected to the General Committee for the ensuing year:—

Vice-Presidents: A. E. Crighton and F. W. Youldon (re-election).

Members of Council: A. F. C. Timpson (transfer from Member of the Guild).

W. L. Nelson (new election).

Members of the Guild: G. Speck (re-election).

H. S. Humphreys (transfer from Member of Council).

The proposal was seconded by Mr. C. J. Hampshire and carried unanimously.

Mr. A. H. Ledger said that he felt sure that the members and officers of the General and Executive Committees found their own reward in their work of assisting the deserving recipients. Nevertheless it meant giving up time to these duties, and he had much pleasure in proposing that a hearty vote of thanks be accorded to the General and Executive Committees and Officers for their work during the past year.

The proposal was carried by acclamation.

The Chairman, in reply, said:—

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

The meeting then terminated.

Eleventh Annual Report of the General Committee.

During the past year the Guild has assisted 40 applicants qualified for relief in accordance with the Rules. While the number of recipients of relief is the same as in the previous year, the total amount of the grants exceeds that of the preceding year by £197 7s. 9d.

The Committee tenders sincere thanks to the members and donors named in the following pages, who have so generously supported the Guild during the past year.

The receipt in June of a bequest of £200 from the late Mr. G. M. Wilson, M.I.Mar.E., was gratefully recorded.

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

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

Among those who have rendered valuable personal assistance as almoners during the past year, the Committee would specially thank Mr. C. S. McCaskie (late Vice-President, Calcutta), and Major E. W. B. Kidby, O.B.E. (Vice-President, Swansea).

The Late Sir George Preece.

In common with the Institute of Marine Engineers, the Guild has suffered a severe loss by the death, in January of this year, of Engineer Vice-Admiral Sir George Preece, K.C.B. Tributes to his outstanding character and abilities, and to his magnificent work for both the Institute and the Guild were paid by the Chairman, Council and Members at the recent Annual General Meeting of the Institute. His keen participation in the work of the Guild Committees, and his untiring personal efforts in securing the interest of and financial support by many firms in the marine engineering and shipbuilding industries will long be remembered with admiration and gratitude by the Committees and members.

Meetings of the Committees.

Since the date of the preceding Report the General and Execu-

tive Committees have held six joint meetings. The Committees are again indebted to the Chairman, Mr. J. Carnaghan, who has assisted the Executive Committee by dealing personally with the applications received during the year; his decisions were all approved and confirmed by the Committees at their subsequent meetings.

Applications for Relief.

A summary of the cases dealt with between 1st January and 31st December, 1944, is given on page xxx. Relief granted to these applicants amounted to £1,367 6s. 3d., and in 34 of the cases the relief was continued from the preceding year.

Membership.

10 Life Members and 52 Subscribing Members have been enrolled during the year. Allowing for losses by death and resignation the net result of these changes shows a total membership at the date of this report of 196 Life Members and 426 Subscribing Members.

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

The John Silley Memorial Fund.

The Committee gratefully acknowledges receipt of the second of the yearly payments of £1,000 from Mr. H. A. J. Silley and £500 from Major B. L. Silley, under their covenants, and of the recovered Income Tax on these amounts.

JAMES CARNAGHAN,

Chairman of the General Committee.

B. C. CURLING, *Secretary.*

27th March, 1945.

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

From the date of foundation 2nd August, 1934 to the 31st December, 1943.

	£	s.	d.		£	s.	d.
Abell, Sir Westcott S., K.B.E.	5	0	0	Bridges, F. W. (Legacy)	100	0	0
Achille Serre (Employees)	4	0	0	M.v. "Brisbane Star" (Captain and Officers' Fund)	1	1	0
Adams, George (Legacy)	100	0	0	British India Steam Navigation Co., Ltd.	750	0	0
Adams, George (Trustees)	12	10	0	British Power Boat Co., Ltd.	1	1	0
Aitken-Quack, E.	5	5	0	British Thomson-Houston Co., Ltd.	25	0	0
Aiton & Co., Ltd.	10	10	0	Brown, A. & R., Ltd. (3 donations)	15	15	0
Alfa-Laval Co., Ltd.	5	5	0	Brown Bros. & Co., Ltd.	52	10	0
Allen, W. H., Sons & Co., Ltd. (2 donations)	126	0	0	Brown, F. T.	8	6	0
Alton, W. O.	5	5	0	Brown, G. J.	10	6	0
Anglo-Saxon Petroleum Co., Ltd.	1,000	0	0	Bruce, D. (2 donations)	6	1	0
Anonymous (9 donations)	55	0	0	Bruce, J. W.	10	6	0
Anonymous... ..	8	6	0	Buckton, W. W. (Legacy)	25	0	0
Anonymous (5 donations)	1	18	0	Burrage, E. E.	7	6	0
Anonymous (2 donations)	8	0	0	Burrow, N.	17	0	0
Anonymous (2 donations)	1	11	0	Butler, E. F.	10	6	0
Anonymous (2 donations)	17	0	0	Button, W. A.	10	6	0
Anonymous... ..	1	1	0	Calderwood, J., M.Sc. (2 donations)	4	2	0
Anonymous... ..	1	1	0	Campbell, A. K. M. (3 donations)	1	5	6
Australian Institute of Marine and Power Engineers	1	11	6	Carnaghan, J. T., B.Sc.	2	2	0
Auto-Klean Strainers, Ltd.	10	10	0	Chesterfield Tube Co., Ltd.	105	0	0
Babcock & Wilcox, Ltd.	105	0	0	Christensen, S. G. (5 donations)	4	1	0
Barr, H. (4 donations)	1	10	0	Christianson, W. A. (2 donations)	2	2	0
Beldam, C. A.	105	0	0	Clark, A. W.	10	6	0
Bennet, J.	5	0	0	Clarke, Chapman & Co., Ltd.	500	0	0
Blundells & T. Albert Crompton & Co., Ltd. (3 donations)	31	10	0	Clegg, A.	1	1	0
Booty, M. J. (6 donations)	3	3	0	Cleveland, E. G.	2	0	0

	£	s.	d.		£	s.	d.
Coffyn, Captain T.	5	5	0	Laurence, Scott and Electromotors, Ltd.	21	0	0
Cole, T. E.		4	0	Lees, T. R.	3	3	0
Colinese, S. G. (4 donations)	3	16	0	Leslie, R.	1	11	6
Collacott, R. A., Flight Lt., B.Sc., Ph.D., R.A.F. (2 donations)	5	5	0	Lloyd's Register of Shipping (2 donations)	52	10	0
Collings, J. W.	1	0	0	Logan, A.		10	6
Cookson, F. R. C. (5 donations)	3	0	6	Longmuir, T. W. (5 donations)	5	4	0
Corr, D. J.	1	0	0	Manganese Bronze and Brass Co., Ltd.	52	10	0
Cottrell, A. B.	10	0	0	Mather, A. H.		10	6
Cowan, C. J.	100	0	0	Mather & Platt, Ltd.	10	10	0
Craigmyle, Rt. Hon. Lord	105	0	0	Mellor, W. H. (6 donations)	6	6	0
Crane Packing, Ltd.	10	10	0	Middleton, J. D.		10	6
Cunard White Star, Ltd. (10 donations)	193	0	0	Middleton, W. J.	1	1	0
Darwins, Ltd.	10	10	0	Mitchell, J.		7	6
Davey, Paxman & Co., Ltd.	10	10	0	Mountstuart Dry Docks, Ltd.	100	0	0
Delves, J. V.	3	3	0	Mumford, N. (4 donations)	13	8	0
Denny, Sir Maurice E., Bt., C.B.E., S.B.	100	0	0	Murray, A.		6	0
Denny, Wm. & Bros., Ltd.	50	0	0	Murray, John & Pilot Press, Ltd.	25	0	0
Dewar, J. M.	2	2	0	Macdonald, T.	5	5	0
Dewrance & Co., Ltd.	26	5	0	McIntosh, G.		10	0
Dodds, T. (3 donations)	1	7	6	McKie, H.	1	1	0
Dorey, S. F., D.Sc., Wh.Ex.	10	0	0	McLean, H. (5 donations)	6	18	0
Drossi, H. H. R.	2	2	0	Naylor, H. (5 donations)	2	2	6
Drummond, R. M.		13	0	Nelson, W. Lynn, O.B.E.	25	0	0
Drysdale & Co., Ltd.	105	0	0	New Zealand Steam Ship Co., Ltd.	500	0	0
H.T. "Dunera"	5	5	0	Nicholl, Com'r. Sir Edward, K.B.E., R.N.R.	105	0	0
Dunster, W. (per F. W. Youldon)	5	0	0	North Eastern Marine Engineering Co., Ltd.	100	0	0
Eagle Oil & Shipping Co., Ltd.	105	0	0	Orient Line, Ltd.	500	0	0
East, A. S.	1	1	0	Ormiston, G.	5	5	0
Ellerman & Bucknall Steamship Co., Ltd.	3	10	0	Oswald, J. H.	1	0	0
English Electric Co., Ltd.	105	0	0	Painter, R. E.		8	2
Fairfield Shipbuilding & Engineering Co., Ltd.	105	0	0	Parker, A. H.	3	0	0
Farmer, J. D., O.B.E.	5	0	0	Parkin, F.		10	6
Federal Steam Navigation Co., Ltd.	500	0	0	Parsons Marine Steam Turbine Co., Ltd.	100	0	0
Ferring Local Savings Group (3% Defence Bonds)	15	0	0	H.N.P.	1	1	0
Firth, T., and J. Brown, Ltd.	21	0	0	P. & O. S.N. Co., Ltd.	750	0	0
Fleming, S. W. C. (3 donations)	1	18	0	Petree, J. Foster	10	10	0
Folland Aircraft, Ltd.	10	10	0	Petters, Ltd.	21	0	0
Foster Wheeler, Ltd.	10	10	0	Pip	1	1	0
Funnell, A. J. (3 donations)	1	11	6	Pirie, H. L.	2	2	0
Furness, Withy & Co., Ltd.	1,000	0	0	Poli (Cartoonist at the Conversazione)	2	0	0
Galloway, J. H. (2 donations)	1	1	0	Pollock, James, Sons & Co., Ltd. (2 donations)	10	10	0
General Electric Co., Ltd.	21	0	0	Preece, Eng. Vice Admiral Sir George, K.C.B. (2 donations)	6	6	0
Gerard, A. J.		3	8	Preece, S. G.	10	10	0
Gibson, A. T.		8	6	Prentice, C. (4 donations)	3	12	6
Gordon-Luhurs, H., Lt.-Col. C.M.G. (2 donations)	3	2	0	Preston, J. J. (2 donations)	5	6	2
Gorringe, H. M.	1	1	0	Quarrell, A. P. (2 donations)	1	11	0
Gough, R. H.	1	1	0	Raines, G. W. B. (4 donations)	1	10	0
Graham, W.		18	0	Ramsay, J. W. (2 donations)	5	8	6
Green, R. H.	100	0	0	Reavell & Co., Ltd.	25	0	0
Green, R. H. & Silley Weir, Ltd.	500	0	0	Rebeck, Sir F. E., D.L., J.P.	25	0	0
Gregg, A. E. C.	12	2		Reid, F. H., B.Sc., Wh.Ex.		10	6
Gullett, T. E. (2 donations)	8	0	0	Richmond, Sir J. R., K.B.E.	1,000	0	0
Hall, J. & E., Ltd. (4 donations)	200	0	0	Risoe, A.		6	0
Harland & Wolff, Ltd.	250	0	0	Ritchie, F. G. (2 donations)	10	10	6
Harrington, W. A. (5 donations)	2	12	6	Roberts, W. H.	1	1	0
Harrison, F. J.	5	5	0	Robinson, E. F. B. (3 donations)	1	11	0
Hastie, J. & Co., Ltd.	105	0	0	Roux, A. E.		6	10
Hawthorn, R. & W. Leslie & Co., Ltd.	250	0	0	Royal Mail Lines, Ltd.	105	0	0
Heenan & Froude, Ltd.	10	10	0	Rubery, Owen & Messier, Ltd.	10	10	0
Heriot, J. C.	19	0		Ruston & Hornsby, Ltd. (2 donations)	42	0	0
Hopes, T.		8	6	Ryland, E. T.	1	1	0
Hopewell, G. H.	10	10	0	Scott, H.		10	6
Howden, James & Co., Ltd.	21	0	0	Scott's Shipbuilding and Engineering Co., Ltd.	105	0	0
Hutchinson, G. R. (2 donations)	1	7	6	Sellex, J. E.		10	0
Hutchison, M.		5	0	Shaw, Savill & Albion Co., Ltd.	525	0	0
I.C.I. Metals, Ltd.	10	10	0	Shipmaster	1	0	0
I.C.I. Metals, Ltd., Birmingham (Employees)	50	0	0	Silley, John H., O.B.E.	500	0	0
Imrie, W.	1	0	0	Simpson, P. A. M., Major, R.E. (3 donations)	6	15	6
Inchcape, Rt. Hon. Earl of	1,000	0	0	Sinclair, F. T.		10	6
Institute of Marine Engineers (9 donations)	1,318	13	3	Skinner, D. B. (2 donations)	2	2	0
Jackson, D. H.	10	6		Snell, J. (3 donations)	1	14	3
Jones, F. M., B.Sc.	1	1	0	Soanes, E. G.		9	6
Jordan, H. J.	5	2		Somers, Walter, Ltd.	52	10	0
Kincaid, J. G. & Co., Ltd.	105	0	0	Soulsby, Sir L. T. G.	5	0	0
King George's Fund for Sailors (5 donations)	850	0	0	Spanner, E. F., R.C.N.C.	10	0	0
Kirkaldy, W. H. (4 donations)	14	6		Spanner, W. F., R.C.N.C.	1	0	0
Kirkbright, G.	1	0	0	Speirs, H. J. (Legacy)	450	0	0
Klinger, Richard, Ltd.	21	0	0	Stein, J. & Co., Ltd.	21	0	0
Kuske, Z (3 donations)	3	18	0	Step, A. G.	1	6	4
Lang, W. V.	2	2	0	Stephen, Alexander & Sons, Ltd.	50	0	0
				Stone, J. & Co., Ltd.	25	0	0

	£	s.	d.		£	s.	d.
Sulzer Bros. (London), Ltd.	10	10	0	Watson, G. O.	2	2	0
Superheater Co., Ltd. (5 donations)	42	0	0	Watts, Fincham, Ltd. (2 donations)	4	4	0
Swanbrow, C. J.	1	1	0	Weir, Andrew & Co., Ltd.	1,000	0	0
Swansea Members	5	5	0	Weir, G. & J., Ltd.	1,000	0	0
Tait, W. A. (8 donations)	4	17	0	Weir, James (Trust Fund)	2,000	0	0
Thomas, J. K. (7 donations)	3	8	0	Weir, Rt. Hon. Viscount, of Eastwood, P.C., G.C.B., D.L.	1,000	0	0
Thompson, John (Wolverhampton) Ltd.	21	0	0	Weir, J. G.	1,000	0	0
Thornycroft, John I. & Co., Ltd.	21	0	0	White, J. Samuel & Co., Ltd.	25	0	0
Timpson, A. F. C., M.B.E.	1	1	0	Whitehall Technical Press	21	0	0
Train, J. T.	10	0	0	Wight, R. B. (4 donations)	2	0	0
Trenchard, L. D.	1	1	0	Williams, Mrs. B.	2	2	0
Tube Investments, Ltd.	25	0	0	Wiltshire, E. F.	3	12	0
Turnbull, F. (2 donations)	1	0	6	Wood, F.	1	1	0
Tyrrell, H. R., Captain, I.A.O.C. (2 donations)	7	2	0	Wren, C. W. Limpricht (2 donations)	2	2	0
Vickers-Armstrongs, Ltd.	250	0	0	Yarrow & Co., Ltd.	52	10	0
Wailles Dove Bitumastic, Ltd.	26	5	0	Youldon, E.	10	0	0
Wallace, W. E. G. (3 donations)	19	6	0	Youldon, F. W. (collecting box—5 donations)	4	10	0
Wallis, R. Pendennis, Ph.D., M.Sc., Wh.Ex.	1	1	0	Young, J. (3 donations)	3	3	0
Wallsend Slipway and Engineering Co., Ltd.	105	0	0	Young, R.	2	6	0

Donations from 1st January, 1944 to the 31st December, 1944.

	£	s.	d.		£	s.	d.
R. Pendennis Wallis, Ph.D., M.Sc., Wh.Ex.	1	1	0	F. S. Davies	3	3	0
J. W. Bruce	10	6	0	E. E. Burrage	1	1	0
W. Mellor (Annual)	1	1	0	G. H. L. Owen	1	1	0
W. A. Tait	1	0	0	D. B. Skinner	10	6	0
Major P. A. M. Simpson	1	0	0	Institute of Marine Engineers (Publications account)	105	16	3
F. Turnbull	12	6	0	G. H. M. Hutchinson	10	0	0
Mrs. R. A. Hunter	1	1	0	J. D. Farmer	3	0	0
F. R. C. Cookson	10	6	0	Cammell Laird & Co., Ltd.	105	0	0
L. Lang	1	4	6	A. Robertson (Annual)	5	5	0
J. E. V. Hood	10	6	0	G. Rooks	1	1	0
W. R. George	10	6	0	J. Ward	1	1	0
Miss B. E. Homewood	2	2	0	Major General A. E. Davidson, C.B., D.S.O.	2	0	0
J. H. Galloway	10	6	0	S. F. Luckly	5	0	0
R. H. Gough	1	1	0	Major W. Gregson, M.Sc.	10	10	0
G. H. Reed... ..	10	6	0	M. Porn	10	10	0
W. A. Alton	2	2	0	Cunard White Star (11th donation)	20	0	0
J. K. Thomas	10	0	0	A. & R. Brown (Annual)	5	5	0
J. Snell	10	6	0	E. G. Soanes	5	16	0
Yorkshire Copper Works	26	5	0	G. H. Hopewell	10	10	0
M. J. Booty	10	6	0	J. T. Train... ..	1	0	0
Anonymous... ..	1	1	0	C. J. Swanbrow	1	1	0
L. D. Trenchard	1	0	0	R. B. Wight	10	0	0
G. R. Hutchinson	100	0	0	Quin, Park, Fleming Benevolent Committee	4	0	0
H. D. Carter	2	0	0	J. R. Hannam	1	2	6
J. Robinson	5	0	0	Davey, Paxman & Co., Ltd. (Annual)	10	10	0
H. Barr	10	6	0	T. W. Longmuir	1	1	0
A. F. Evans	3	3	0	W. C. Houston	5	0	0
G. R. Hutchinson... ..	15	0	0	Serck Radiators, Ltd.	26	5	0
J. D. Middleton	10	6	0	A. M. Riddell	10	10	0
R. D. M. McKinlay	2	2	0	G. H. V. Lovatt	7	6	0
N. Hart	1	1	0	T. E. Cole	5	0	0
B. Stephenson	10	10	0	Blundells & T. Albert Crompton & Co., Ltd. (Annual)	10	10	0
Lloyd's Register of Shipping (3rd donation)	26	5	0	J. W. Ramsay	3	3	0
Anonymous... ..	1	10	0	E. P. Paxman, M.A. (Annual)	2	2	0
T. E. Gullett	4	0	0	S. G. Colinese (5th donation)	1	10	0
T. Dodds	8	0	0	Superheater Co., Ltd. (6th donation)	10	10	0
W. R. Guerin	10	6	0	S. G. Christensen	17	6	0
F. Wood	1	1	0	H. A. Higgs	16	0	0
J. Herbert Aston, J.P.	1	1	0	O. Akman	1	5	0
A. P. Quarrell	1	8	0	Anonymous... ..	10	0	0
O. M. Akman	1	1	0	Cunard White Star (12th donation)	20	0	0
Watts, Fincham, Ltd. (3rd donation)... ..	2	2	0	S. G. Colinese (6th donation)	1	10	0
S. G. Christensen	17	6	0	J. D. Middleton	10	6	0
G. M. Wilson (bequest)	200	0	0	King George's Fund for Sailors (Main Fund)	100	0	0
Lt.-Col. H. Gordon-Luhrs, C.M.G.	2	2	0	King George's Fund for Sailors (Church Collection Fund)	50	0	0

Donations received from 1st January, 1945 to 27th March, 1945.

	£	s.	d.		£	s.	d.
Mrs. R. Hunter	1	1	0	F. Wood	1	1	0
J. Snell	12	6	0	M. J. Booty	10	6	0
P. Ewing	10	6	0	F. R. C. Cookson	10	6	0
L. D. Trenchard	1	1	0	J. C. Walker	10	6	0
H. D. Carter	2	12	0	R. H. Gough	1	1	0
Major P. A. M. Simpson	1	0	0	W. R. Guerin	10	6	0
W. Mellor (Annual)	1	1	0	J. Ellson	1	1	0
P. J. Marshall	5	0	0	R. S. Kennedy	1	1	0

A. N. Platford	1 1 0	G. R. Hutchinson... ..	15 0
F. Turnbull	10 0	R. Sidney Blackledge	12 0
R. Pendennis Wallis, Ph.D., M.Sc., Wh.Ex.	1 1 0	J. D. Black... ..	10 6
J. Bruce	10 6	A. Paszyc	1 10 0
J. K. Thomas	10 0	W. A. Alton	2 2 0
J. E. V. Hood	13 0	F. W. Youldon (Collecting Box)	1 13 0
W. Tait	10 0	A. G. Step	8 0
S. W. C. Fleming... ..	7 6	T. E. Gullett	4 0 0
A. J. Cant	10 6	R. B. Wight (5 donations)	10 6
L. Lang	7 6	A. P. Quarrell (3rd donation)	1 1 0

Donations in Memory of the Late Mr. J. M. Dewar.

	£	s.	d.		£	s.	d.
B. P. Fielden	1	0	0	A. Robertson	5	5	0
W. A. Christianson	1	1	0	J. Foster Petree	1	1	0
L. E. Parsons	1	1	0	J. Caldwell	3	3	0
Mr. and Mrs. L. W. Shenton	2	2	0	Dennystown Forge Co., Ltd.	5	5	0
R. S. Kennedy	1	1	0	A. E. Crighton	1	1	0
N. M. Dewar	3	3	0	Institute of Marine Engineers	10	10	0
G. Steedman	2	2	0	T. A. Crompton	2	2	0
J. L. Gillingham	1	1	0	Chadburn's Ltd.	52	10	0

Donations in Memory of the Late Sir George Preece.

	£	s.	d.		£	s.	d.
T. A. Crompton	2	2	0	Institute of Marine Engineers	10	10	0

**PARTICULARS OF THE CASES ASSISTED BY THE GUILD,
from 1st January to 31st December, 1944.**

Case No.	Age.	Qualifications.	Amount of Relief Granted.			Case No.	Age.	Qualifications.	Amount of Relief Granted.		
			£	s.	d.				£	s.	d.
1	66	Widow of former Member of The Institute	60	0	0	104	79	Marine Engineer	27	0	0
3	77	Member of The Institute	87	0	0	106	15	Son of former Member of The Institute	27	0	0
6	63	Daughter of Marine Engineer	31	10	0	107	58	Widow of Marine Engineer	30	10	0
8	64	Widow of Marine Engineer	37	8	0	109	62	Widow of Marine Engineer	48	17	9
19	88	Widow of Marine Engineer	28	10	0	114	71	Marine Engineer	34	10	0
20	79	Marine Engineer	18	10	0	120	55	Marine Engineer	34	0	0
34	75	Marine Engineer	24	0	0	121	70	Widow of Marine Engineer (now deceased)	6	12	0
44	66	Widow of Marine Engineer	21	14	0	122	58	Widow of Marine Engineer	25	10	0
47	64	Widow of Marine Engineer	15	0	0	123	44	Widow of former Member of The Institute	80	6	0
51	65	Widow of former Member of The Institute	27	0	0	125	47	Member of The Institute	33	10	0
53	67	Widow of Marine Engineer	26	10	0	126	54	Widow of former Member of The Institute	47	4	0
58	67	Widow of Marine Engineer	27	0	0	127	55	Widow of former Member of The Institute	58	0	0
72	65	Widow of Marine Engineer	26	0	0	128	73	Widow of Marine Engineer	19	10	0
77	53	Widow of Marine Engineer	13	4	0	130	17	Daughter of Marine Engineer	51	0	0
80	65	Sister of former Member of The Institute	40	0	0	131	51	Widow of Marine Engineer	23	0	0
85	71	Widow of Marine Engineer	15	0	0	132	14	Son of former Member of The Institute	25	0	0
88	79	Member of The Institute	11	8	0	133	65 & 55	Daughters of former Member of The Institute	62	17	6
96	69	Widow of former Member of The Institute	43	5	0	134	75	Widow of former Member of the Institute and of the Guild of Benevolence	26	12	0
97	73	Widow of Marine Engineer	41	10	0						
98	77	Marine Engineer	14	0	0						
101	78	Marine Engineer	34	2	0						
103	46	Widow of Marine Engineer	45	4	0						
									£1,348 14 3		

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Preston, J. J.
Prentice, C.

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