SESSION 1912-1913

President: SUMMERS HUNTER, ESQ.

# Minutes of Proceedings

AT THE

# Annual Meeting

*HELD AT THE LIVERPOOL STREET HOTEL, E.C., ON FRIDAY, MARCH 7, 1913*

CHAIRMAN: MR. SUMMERS HUNTER.

The CHAIRMAN: Before proceeding to the business of the evening, I regret to have to refer to the great loss which has been sustained by this country in the death of Sir William White. He was a Past President of this Institute and a prominent member of many other Institutions. He was a notable man in every sense of the word; a man of brilliant attainments, and with it all he had a most kindly, a great heart. Those who were brought into touch with him when he was President of this Institute will know that whatever he took in hand he tried to make successful. He entered into the details of things and thoroughly mastered his subject. He was a master of his profession, and his name was written large not only in the Navy of this country but in the Navies of all countries of the world. I ask you to join with me in moving a vote of sympathy and condolence to the surviving relatives in their great bereavement.

The vote was carried by the members standing in silence.

Mr. J. R. RUTHVEN : I have much pleasure in proposing that Messrs. W. J. N. Brett, and E. W. Ross be appointed Scrutineers of the Ballot Papers.

Mr. P. SMITH, R.N.R., seconded the motion, which was duly carried.

The CHAIRMAN then called upon the Hon. Secretary to read the Annual Report, as follows :

# Annual Report.

## SESSION 1912–13.

THE review of the work accomplished in connection with the Institute during the past year is detailed in the following pages. There are, however, a few notes which may be referred to with advantage to the Members and the Marine Engineering community generally, as a preliminary to what follows.

The *Titanic* Engineering Staff Memorial Fund amounted to £2,622 at the close of the financial year, since then it has been increased by £113 and is still open for contributions, A large number of our members who are closely associated with Southampton, being desirous of having a memorial erected on a suitable site at that port, subscribed to a fund specially collected for that purpose, while many also contributed to the Institute fund with a view to assist in the erection of a memorial with which the Institute should be associated. Thus a sympathetic association has been maintained with the committee at Southampton to mutual advantage, and in harmony with the views of many subscribers.

The main object of the Memorial, however, is to establish a means to assist, where and as required, the widows of marine engineers in bringing up their children, and possibly form the nucleus of a fund which may be subscribed to annually—as has been suggested by some of our members, with a view to maintain a school or home. Other suggestions have also been placed before the committee for consideration on similar lines, and will receive due attention. Meantime the fund is not yet closed, contributions being still invited.

The purchase of a site on which to erect new premises marks an important epoch in the history of the Institute—now approaching the twenty-fifth year since its foundation was laid. It is a matter of regret that the first president had not lived to see this accomplishment, as it was a dream of our early days of labour. It is anticipated that with the addition of central premises there will be a large influx of new members and considerable developments in the work of the Institute, both on the educational and the social sides.

The changes which have been taking place in many of the relationships of life are exercising the minds of engineers in directions which may render it desirable for the Institute to exert its influence regarding questions of importance in connection with improvements in marine engineering conditions. The unsatisfactory position of the R.N.R. engineer is one of the questions which has been discussed by members and, incidentally, the Stoker-Mechanician and his duties. There are several questions which arise under the subjects brought before, and discussed by, the Advisory Committee of the Board of Trade which call for careful consideration, and it is probable that other subjects will be brought under the attention of the committee with a view to general and specific improvements.

MEMBERSHIP.—The changes which have taken place in the membership since our last Annual Report was issued will be found detailed in the following tabulated statement, the net result shows an increase of 66, making the total 1,350.

| GRADE. | 1912. Roll Jan. 31. | Lapsed. | Transferred from. | Transferred to. | Died. | Re-signed. | Elected. | 1913. Roll Jan. 31. |
|---|---|---|---|---|---|---|---|---|
| Past Presidents (Non-Members) .. .. | 9 | — | — | — | — | — | — | 9 |
| Hon. Vice-Presidents | 1 | — | — | — | — | — | — | 1 |
| Hon. Members .. .. | 1 | — | — | — | — | — | — | 1 |
| Members .. .. .. | 1,011 | 24 | — | 23 | 15 | 19 | 85 | 1,061 |
| Companions .. .. | 70 | — | — | 2 | 1 | 4 | 7 | 74 |
| Associate Members .. | 62 | 4 | 1 | 1 | — | 1 | 4 | 61 |
| Associates .. .. .. | 44 | 2 | 1 | 4 | — | 1 | 4 | 48 |
| Graduates .. .. .. | 56 | 1 | 6 | — | 1 | 1 | 7 | 54 |
| Probationary .. .. | 30 | — | 22 | — | — | — | 33 | 41 |
| Totals .. .. .. | 1,284 | 31 | 30 | 30 | 17 | 26 | 140 | 1,350 |

The removals from the roll by death have been many and include several well-known members, the first President, a Vice-President and a former Vice-President. The list is as follows :—

Mr. Sydney Alder (Member).
Mr. Damer L. Allen (Member).
Mr. Asplan Beldam (Past President).
Mr. Joseph Bell, R.N.R. (Member).
Mr. William Birkett (Vice-President).
Mr. D. D. Boyd (Member).
Mr. John C. Bull (Companion).
Mr. Neil Campbell (Member).
Mr. A. Couper (Member).
Mr. Wm. A. Crake (Member).
Mr. W. D. Cruickshank (Member; Vice-Pres. 1909–10).
Mr. E. Eyssartier (Companion).
Mr. John Fleming (Member).
Mr. George Greig (Member).
Mr. John McGown (Member).
Mr. Wm. Minto (Graduate).
Mr. R. P. Thornton (Member).

A short notice of each of these members is given, and our sympathies are again expressed towards the relatives of those who have departed. In the list occurs the chief engineer of the *Titanic*, who joined the Institute in 1891.

VISITS TO WORKS AND EXHIBITIONS.—By the courtesy of the Marquis of Graham visits were arranged to his motor yacht, the *Mairi*, and members who were able to take advantage of the invitation had a run on the Thames and saw the machinery at work and the vessel manœuvred to illustrate the quick reversal. Visits were paid to the Western Electric Co.'s works, Silvertown ; The National Physical Laboratory, and the William Froude Experimental Tank ; The General Post Office ; The Non-Ferrous Metals Exhibition (Agricultural Hall, Islington). Several other exhibitions held in London (Agricultural Hall and Olympia) were visited by members unofficially.

PAPERS AND DISCUSSIONS.—Reference to the syllabus of subjects which have been under consideration will show

that nine papers have been read and discussed during the Session, and one lecture given. Two of the papers were read at the Non-Ferrous Metals Exhibition on June 22nd, and subsequently discussed at the Institute premises, where also the other papers were read and discussed, the meetings being held on Monday evenings at 8. A suggestion has been made to alter the evening of meeting, for the convenience of some members who are otherwise engaged on Monday, and on this point comments are invited, The valuable nature of the papers needs no comment, the great value attaching to attendance at, and personal experiences detailed in, the discussions requires to be emphasized for the benefit of the whole membership.

ISSUE OF TRANSACTIONS.—Our Transactions for Session 1912–13 have embraced most subjects of interest in present-day engineering and have created so much interest beyond the Membership that many engineers have been led to apply for admission; especially in outlying districts and abroad is the value of papers on modern subjects appreciated, and excellent testimony from members resident in different parts of the world as to the policy—which has done much to make the value of the Institute better known wherever engineers are found—of maintaining the monthly issue, has been given by several correspondents.

The issue of Transactions in the session under notice is one of the largest since the founding of the Institute, including the *Titanic* Memorial number, which was well received, and its wide distribution has no doubt materially assisted the fund being raised for some permanent memorial of a beneficent nature to our fellow engineers who perished in the disaster; at the same time it has been instrumental in bringing the Institute into sympathetic touch with an enlarged circle of travellers and others.

Members in out-ports or abroad are invited to send contributions commenting on the papers read, or dealing with personal experiences of general interest, as all such tend to increase the value of the Transactions.

THE PREMISES, 58, ROMFORD ROAD.—The only alteration that has been made during the last twelve months has been to provide additional book shelves. These have been fitted in the Council Room on the request of the Library

Committee. Minor renovations have also been carried out in several of the rooms, and generally the necessary repairs have been dealt with to maintain the property.

READING ROOM AND LIBRARY.—The usual transactions of kindred Institutions have been added since our last annual report and are set forth in detail in the list of "Additions to the Library," besides which thirty-four books have been either presented or purchased. The names of the donors are appended in the report, and our thanks are accorded to members and friends who have kindly added to the library of the Institute. It is a matter for congratulation that a number of monetary donations have been made by members, thus showing their interest in the welfare of the Institute in a practical form and admitting of the purchase of special volumes for study and reference. The catalogue was overhauled to bring it up to date, and quotations were obtained for printing a new issue, as the present catalogue has not been revised and re-arranged to include additions for some years, it is thus a work that will require to be attended to as early as convenient. After the matter had been discussed by the Council it was considered better to defer the publication of the new catalogue until the transfer to the new city premises takes place and the books are re-arranged in the new building.

The large number of magazines and papers supplied to the Reading Room for the benefit of visitors may be seen by reference to the list herewith. Many members about to proceed on long voyages have been supplied with copies of magazines and papers after these have been a month on the table; exception is made of those papers and magazines which are to be bound at the end of the year. Thanks are given to the proprietors of the journals who have kindly sent these for the benefit of the readers,

ADVISORY COMMITTEE, BOARD OF TRADE.—The following is a list of the subjects considered by the Merchants' Shipping Advisory Committee of the Board of Trade from November, 1911, to January, 1913, and the valuable and important work dealt with may be gauged by reference to the subjects. The Institute is represented on the Committee by Mr. Geo. Shearer (Member).

The principal subjects discussed have been : Watertight Bulkheads of steamships, their number and height ; Life Boats, their construction and the number to be carried, also the manning of them ; Compulsory Boat Drill ; Life-saving appliances ; Wireless Telegraphy and the number of engineers and mates to be carried on various classes of steamships.

RECREATION.—The Annual Dinner was held on November 8, 1912. It was a very successful gathering, the report of the proceedings has been published and issued so that it is not necessary to add any details. The gathering for the Junior Section on the last night of the year was an excellent one and the assembled company spent a very pleasant evening. The programme consisted of music, songs, dances and games. On the stroke of midnight a message conveying the good wishes of the President was announced and a return message despatched to Mr. Hunter. The New Year was brought in amid the time-honoured music and congratulations associated with its arrival.

LAWN TENNIS CLUB.—The membership of the Tennis Club was 25 during 1912. The attendances have been very good and much interest was taken in two matches arranged with the Upton Club. An outing was arranged to Amesbury Banks by brake in which 17 members took part. Three Socials have been held and have been well supported. The cost of new turf has been very heavy owing to the very dry summer of 1911.

INCOME.

| | £ | *s.* | *d.* |
|---|---|---|---|
| Balance from 1911 | 3 | 19 | 5 |
| 21 subscriptions at 7*s.* 6*d.* | 7 | 17 | 6 |
| 4 subscriptions at 10*s.* 6*d.* | 2 | 2 | 0 |
| 5 entrance fees at 2*s.* 6*d.* | 0 | 12 | 6 |
| From socials | 19 | 13 | 6 |
| From outing | 2 | 11 | 0 |
| From sundries | 0 | 11 | 6 |
| From special collection towards new turf | 2 | 17 | 0 |
| Total | £40 | 4 | 5 |

EXPENDITURE.

| | £ | *s.* | *d.* |
|---|---|---|---|
| General expenses | 4 | 12 | 5 |
| New turf | 8 | 10 | 0 |
| Rolling and cutting | 3 | 6 | 6 |
| Postage and stationery | 0 | 6 | 6 |
| Outing | 3 | 16 | 1 |
| Socials | 17 | 10 | 0 |
| Gratuity to caretaker | 1 | 0 | 0 |
| Balance | 1 | 2 | 11 |
| | £40 | 4 | 5 |

J. H. REDMAN, *Hon. Sec. Tennis Club.*

AWARDS.—The Denny Gold Medal was awarded to Mr. John McLaren (Member) for his paper on "Wireless Telegraphy," with demonstrations, read December 11, 1911.

JUNIOR SECTION.—The paper on the subject set for Associates was "The Producer Gas Engine." Award was given to Mr. W. Smith (Leytonstone).

The paper on the subject set for Graduates was "The Thrust Block." Awards were given to Messrs. R. J. Walker (Glasgow) and H. B. Locke (Upton Manor).

The paper on the subject set for Open Competition was "Improvements in Workshop Practice." Award was given to Mr. J. P. Marsden (Glasgow).

LLOYD'S REGISTER SCHOLARSHIP.—The results of the examinations for this Scholarship placed :—

1st, Mr. Ian Garvie (Graduate), Gourock, now studying at the Glasgow University.

2nd, Mr. Archie Allan (Graduate), Tynemouth, now studying at the Armstrong College, Newcastle-on-Tyne.

As the previous year's examination results were below the standard set by the committee, there was no award, hence the recommendation was given and accepted by Lloyd's Register to the effect that two awards should be bestowed, as the standard had been attained by at least two of the candidates. This accounts for the two scholarships being awarded in the course of one year. Two of the former holders of the Lloyd's Register Scholarships granted in connexion with the Institute qualified for the degree of B.Sc., at Glasgow University. This is a very satisfactory sequel to the studies these graduates were enabled to pursue by means of the awards gained by their own merits and industry.

EXPERIMENTAL DEPARTMENT.—Several fuel tests for heating values have been carried out during the past session, the results being duly entered up in the record book and copies given to those interested.

The department is always prepared to accede to the wishes of members in carrying out such tests, both on the dates given on the syllabus and also to suit the convenience of those interested, on other evenings by arrangement. It is possible by the co-operation of the members to greatly extend the usefulness of this department. Certain classes of fuels from various dis-

tricts have their own peculiarities in burning, and while the heating power is a guide as to the value of the fuel, the real test is its behaviour in the furnace. In addition to samples for heating values, the department would be pleased to have reports as to the characteristics of the fuel in raising and maintaining steam, in order that such should be noted in the record book for general information.

CITY PREMISES FUND.—The Committee has much pleasure in stating that this fund has made considerable progress since the last report was given. It now amounts (at February 13th) to a total of £5,952 3*s*. 0*d*., of which £5,633 14*s*. 6*d*. has been received and paid into the Bank, leaving a balance of £318 8*s*. 6*d*. not yet to hand.

The interest on deposit account amounts to £93 6*s*. 4*d*., thus bringing up the total to £6,045 9*s*. 4*d*.

The Committee, however, wish to point out that the sum subscribed falls a long way behind what is required to complete our task, and we would earnestly impress upon all Members of the Institute to make a special effort in the direction of sending in subscriptions from themselves and friends, so that, when the new premises are erected, we may not only be quite in a position to pay for the buildings, but have a handsome balance towards liquidating the increased cost of their maintenance. The negotiations for the acquirement of the site on Tower Hill are now completed, and the necessary documents are in course of preparation.

The sessional year just closed has been a valuable one in several respects, and that of which we have reached the threshold may be still more valuable to every member and of greater service to the marine engineering world if the enthusiasm, latent in many, were enkindled to take a warmer interest in the details of the work of the Institute.

The testimonies received from abroad as to the transactions and as to the pleasant recollections of meetings in connexion with the Institute are welcome messengers, and serve to show the appreciation of members and friends ; this we have pleasure in acknowledging, on behalf of the Council.

JAS. ADAMSON,

*Hon. Secretary.*

## OBITUARY.

Mr. SYDNEY ALDER (Member) died at his home in Stansted, Essex, on January 6, 1913, through an attack of typhoid fever. He was born in 1867 and received his early training with Messrs. Oswald, Mordaunt & Co., of Southampton, afterwards serving with Messrs. James Simpson & Co. of Pimlico. At the time of his death he was Superintendent Engineer to Messrs. Wm. Cory & Sons, Ltd., which position he had held for many years. He was elected a Member of the Institute in 1897. Mr. Alder was a consistent supporter of the work of the Royal Merchant Seamen's Orphanage and other charitable Institutions.

Mr. DAMER LESLIE ALLEN (Member) was lost while flying across the Irish Channel, April 18, 1912. He was born in the south of Ireland and came at an early age to London, where he was educated at Christ's Hospital. He commenced his engineering career in New Zealand, and, after some years, took up marine work, sailing in the Nelson Line to South American ports. In 1906 he obtained his first class certificate, and after making several additional voyages, joined the firm of Messrs. J. & E. Hall, Ltd., for whom he supervised the installation of refrigerating plant on some of the largest boats at home and abroad. In 1907 he visited Siberia, Japan, China, India and other eastern countries for Messrs. J. & E. Hall, where he dealt with important naval contracts, etc. In 1910 he joined Mr. Arthur J. Maginnis (Liverpool) in the firm of Maginnis & Allen, taking charge of the London business.

Mr. Allen was a keen sportsman, fond of hunting and steeplechasing, and in 1911 he became greatly interested in aviation. He learned to fly at the Bleriot School at Hendon, where he was looked upon as a most promising aviator. After obtaining his pilot's certificate he made several cross country flights and then decided to attempt a flight of the Irish Channel. On April 17, 1912, he started from the Hendon Aerodrome and reached Chester some three hours later after a splendid flight. The following morning he continued the journey and reached Holyhead about 8 a.m., when, after passing over the North Stack, he made a course for Dublin. When he failed to arrive at the expected time, a search was made north and south of Dublin, but no trace of the aviator

or his monoplane was found, and it can only be assumed that he descended about mid-channel.

Mr. Allen was elected a Member of the Institute in 1909, and was an Associate Member of the Institution of Naval Architects. Mr. Allen was only 34 years of age and left a little daughter. His wife pre-deceased him by nearly eighteen months.

Mr. Asplan Beldam, First President of the Institute, died somewhat suddenly on December 16, 1912. A photograph and particulars of his career have already been given as a frontispiece to the January issue of the Transactions. Mr. Beldam, who was born at Bluntisham, on the border of Huntingdon and Cambridge, in 1841, served his apprenticeship with Messrs. Kitson, Thomson & Hewitsons, locomotive engineers, Leeds, subsequently being employed at Messrs. Miller and Ravenhill's, The General Steam Navigation Co., and J. Penn & Sons, Greenwich. He was afterwards Manager of the Worcester Locomotive & General Engineering Works, and in 1867 became manager of shipbuilding and engineering works at Northfleet. Two years later he joined the firm of Messrs. Geo. Forrester & Co., Liverpool. In 1872 he was appointed superintendent of the Flower Line of steamers, and was a consulting and superintending engineer for various other steamship owners. The specialities with which his name afterwards became associated are well known in connection with both land and marine engine practice. When the Institute of Marine Engineers was inaugurated at Stratford, he took a great interest in the foundation work, and on the successful formation of the Institute in 1889 he was elected as the first President.

Mr. Joseph Bell, R.N.R. (Member), chief engineer of the ss. *Titanic*, was born at Farlam, in Cumberland, and received his education at a school in Carlisle. His apprenticeship was served at the works of Messrs. Robert Stephenson & Co., Newcastle-on-Tyne. He entered the mercantile marine about 1883, and served in vessels owned by Messrs. Lamport & Holt, Ltd. In 1885, he joined the White Star Line, and it is known that he saw service in the following vessels : *Majestic*, *Britannic*, *Teutonic*, *Ionic*, *Bovic*, *Corinthic*, *Suevic*, *Athenic*, *Celtic*, *Cedric*, *Baltic*, *Oceanic*, *Adriatic*, *Laurentic* and *Olympic*, from which vessel he was transferred to the *Titanic*. He had been

on both the New York and New Zealand services, and at thirty years of age was Chief in the *Coptic*. Mr. Bell, who was fifty-one years of age, leaves a widow and four children, two boys and two girls ; the eldest boy, 16½ years, has recently started as an apprentice in marine engineering at Messrs. Harland & Wolff's, Ltd., and accompanied his father in the *Titanic* from Belfast to Southampton. Mr. Bell was a member of the Institute of Marine Engineers, which Institute he joined in 1891, and was also a member of the Royal Naval Reserve. He was a most capable officer, and his loss will be keenly felt among a large circle of friends.[1]

Mr. William Birkett (Member), Superintendent engineer of the P. & O. Company at Bombay, died in St. George's Hospital, Bombay, on June 6, 1912. Born in 1851, he served his apprenticeship in Greenock with Messrs. John Hastie & Co. He joined the P. & O. Company about the year 1871, and served through the various grades to chief engineer. He so acquitted himself in this position that when a vacancy occurred at Bombay in 1903, he was appointed superintendent engineer. He was within a short time of retirement from India and active service when he was seized with the illness to which he succumbed. Mr. Birkett was a Member of the Institute of about twenty-three years' standing, and was elected the representative Vice-President at Bombay, an office which he held at the time of his death. A portrait of Mr. Birkett was reproduced in the September issue of the Transactions.

Mr. D. D. Boyd (Member) died on August 6, 1912, at the age of 65. Born at Dumbarton and educated at the Academy, Mr. Boyd served his apprenticeship with Messrs. Denny & Co., and in 1873 he went to sea as a junior engineer in the *Almora*, spending most of his time in the Indian Coast service of the British India Steam Navigation Company. He became chief engineer, and held that position for thirty-one years. He was retired from the sea service some years ago with a pension, but had been engaged as an inspector for the Company on new steamers building on the Clyde, and was resident in Glasgow. While occupied at Messrs. Barclay & Curle's works, a faintness overcame him and in a short time he expired. The funeral was largely attended by old friends and colleagues, several of whom journeyed long distances to

[1] See *Titanic* Memorial Booklet.

Glasgow and Dumbarton to pay the last tribute to the memory of one who was highly esteemed and respected for his sterling worth and goodness as a man, as well as for his attainments and ability as a marine engineer. He was elected a Member of the Institute in 1890.

Mr. JOHN C. BULL (Companion), died April 6, 1912, at Christiania, Norway. Mr. Bull was born at Tonsburg, Norway, in 1859, and was educated at the University of Christiania. He came to England in 1884, his first appointment being with Messrs. Alex. Dick & Co., now the Delta Metal Company. As a result of his researches in chemistry and metallurgy, he patented in 1888 the alloy which is now widely known as Bull's Metal. For the following two years he was on the technical staff of the Maxim-Nordenfeldt Company and of Easton & Anderson, Ltd., Erith, and was afterwards associated for about eight years with the Phosphor Bronze Co., Ltd. In 1898 he founded Bull's Metal and Melloid Co., of which he was managing director at the time of his death. The works and offices of the Company were originally in London, but in 1901 new works were laid down at Yoker, near Glasgow, on a more extensive scale. Mr. Bull was elected a Companion of the Institute in July, 1909.

Mr. NEIL CAMPBELL (Member) died on April 30, 1912. He was the youngest son of Mr. John Campbell of Strachur, Argyllshire, and served his apprenticeship with Messrs. John Elder & Co., of Glasgow. After making a couple of voyages to China, he joined the Orient Company as third engineer of the ss. *Austral* and eventually became chief engineer of the R.M.S. *Orient*. A shore appointment in Sydney was offered to and accepted by Mr. Campbell, but he relinquished this and returned to England. Entering the service of the Aberdeen White Star Co., he made many voyages as chief engineer. He had gone to Belfast to take charge of the Company's largest steamer, the *Themistocles*, when his health failed him, and he died after a long illness. He was a greatly esteemed and capable engineer, and his cheery nature and courtesy gained for him the regard of all with whom he came in contact; his father was also well known to Loch Fyne tourists. He was elected a Member of the Institute in 1891.

Mr. A. COUPER (Member) died at Singapore in January,

1913. He served his apprenticeship with Messrs. Alley & Maclellan, Polmadie, Glasgow, and was afterwards in the drawing office of the Fairfield Shipbuilding and Engineering Co., subsequently taking up a position as an engineer with the British India S.N. Co. At the time of his death Mr. Couper was the representative of Lloyd's Register of British and Foreign Shipping at Singapore, and had previously represented the Society at Barry and Cardiff. He was elected a Member of the Institute in July, 1909.

Mr. William A. Crake (Member) died on February 24, 1912. He served his apprenticeship with Messrs. C. D. Holmes & Co., of Hull, and his sea-going experience of about eight years was obtained principally in Eastern waters, his first class certificate being one of those granted by the authorities at Hong-Kong. He was for many years an assistant in the Government Marine Surveyor's office at Hong-Kong. He was invalided on pension on October 4, 1911, suffering from laryngeal tuberculosis, and proceeded home, where he died. Mr. Crake was elected a Member of the Institute in 1903.

Mr. W. D. Cruickshank (Member) died at Balmain, Sydney, on November 11, 1912. Born at Aberdeen in 1837, he served his apprenticeship with Messrs. Armstrong & Co., Newcastle-on-Tyne, then went to sea, obtained his Board of Trade certificates, and, while serving as 2nd engineer, he remained on the Australian coast service about the year 1866. He was afterwards appointed as an engineer on the Marine Board and, on the retirement of Mr. Broderick, he was promoted to the position of Engineer-in-Chief to the Board—an appointment which included the examination of engineers for Certificates of Competency. He was well known to engineers in New South Wales and to many others, for his work on Boiler Construction. published about 1894. He was one of the founders of the Balmain Bowling Green, in which he took a keen interest. For some years past Mr. Cruickshank suffered from partial paralysis and was unable to hold free converse with his visitors, although his movements to and fro were not affected. He was elected a Member of the Institute in 1898, and was the representative Vice-President at Sydney during Session 1909–10.

Mr. Edward Eyssartier (Member) died on April 30, 1912, at the age of 64 years. Born at Constantinople of French parents, he entered the Imperial Ottoman Naval Dockyard in that city at an early age, as engineer student and apprentice, afterwards serving as improver in the drawing office and fitting-shop of Messrs. Miller & Ravenhill. London. After five years' experience in the Merchant service he held for four years the position of Chief Engineer in the Imperial Ottoman Navy, subsequently holding the positions of Superintendent of the Ægean Steam Navigation Co., Director of the Courdji Navigation Co., Director of the Hellenic Steam Navigation Co., and Surveyor to Lloyd's Register of Shipping at Syra, Greece. A man of education and of great capabilities, he was greatly esteemed, the Greek Government honouring him with the Cross of the Saviour, and the French Government with the Distinction of Merit. He was elected a Member of the Institute in 1909.

Mr. George Greig (Member) died at Dundee on June 16, 1912. He was born at Dundee in 1855, but most of his youth was spent at Tayport, Fife. After securing the usual village education he completed his studies in Dundee and at evening classes gained Science and Art Certificates on subjects bearing on his profession. After serving his apprenticeship with Messrs. Thomson Bros. & Co., Dundee, he was successively in the employment of Messrs. Jas. Carmichael & Co., Messrs. Lee Croll & Co., and Messrs. W. B. Thomson & Co., Engineers, Dundee. He commenced his sea service in 1878, and was employed in the Greenland, Baltic, Mediterranean and Eastern trades, first as junior, then as chief engineer. In 1883 he entered the service of Messrs. Turner, Morrison & Co., Calcutta, and became the Company's superintending engineer in 1890. In 1899 he was appointed to the management of the same Company's Engineering and Shipbuilding Works, which post he held till he retired from active service in 1910, when he left Calcutta to reside in Dundee. He was elected a Member of the Institute in 1894, and he was also a Member of the Institution of Naval Architects.

Mr. John McGown (Member) died at Glasgow on December 10, 1912. He received his early training as an engineer with Messrs. Steven & Struthers, Glasgow, and Messrs. J. & G. Thomson, Clydebank. Among other appointments in a sea

service extending over eighteen years, Mr. McGown was for four years an engineer on the S.Y. *Margarita*, owned by Mr. A. Drexel, of New York, and for the last six and a half years was in the service of the Indo-China Steam Navigation Co. sailing on the Chinese coast. In consequence of his health failing, he left Shanghai on holiday, and died shortly after his arrival home.

Mr. WILLIAM MINTO (Graduate) died July 1, 1912. Mr. Minto, who was a son of Mr. Jas. V. Minto, Chief Engineer of the SS. *Whimbrel*, joined the Institute as a Graduate in December, 1910, while serving as an apprentice engineer with Messrs. John Brown & Co., Clydebank. He died after an operation in the Western Infirmary, Glasgow, on July 1, 1912, at the early age of 24 years.

Mr. R. P. THORNTON (Member) died on October 3, 1912. Mr. Thornton, who was one of the earliest Members of the Institute, having been elected in November, 1889, served his apprenticeship with the Great Eastern Railway Co., and afterwards with Messrs. John Stewart & Co., of Blackwall. Out of a total sea service of forty years he sailed as chief engineer for over twenty-four years. He died at Naples, after being taken to the hospital on the arrival of his ship at that port.

Sir WM. H. WHITE (Past President) died March 2, 1913. On the motion of the Chairman, a vote of sympathy was passed at the Annual Meeting to Lady White and her family, the members present acknowledging their acquiescence by standing.

## TRANSACTIONS EXCHANGED WITH.

American Society of Civil Engineers.
American Society of Mechanical Engineers.
Association of Engineers in Charge.
L'Association Technique Maritime.
Barrow and District Association of Engineers.

Incorporated Institution of Automobile Engineers.
Institute of Metals.
Institution of Electrical Engineers.
Institution of Engineers and Shipbuilders, Hong-Kong.
Institution of Engineers and Shipbuilders in Scotland.
Institution of Mechanical Engineers.
Institution of Naval Architects.
Liverpool Engineering Society.
North East Coast Institution of Engineers and Shipbuilders.
Société d'Ingénieurs Civils de France.
Western Australian Institution of Engineers.

## COLLEGES, UNIVERSITIES AND LIBRARIES WHICH RECEIVE BOUND COPIES OF THE TRANSACTIONS.

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# REVENUE

Dr. 1st February, 1912, to

| | £ | s. | d. | £ | s. | d. |
|---|---|---|---|---|---|---|
| **To General Expenses :** | | | | | | |
| Bank Charges | | 15 | 6 | | | |
| Postages, etc. | 57 | 10 | 4 | | | |
| Telegraphic Address | 1 | 1 | 0 | | | |
| Engrossing Certificates | 2 | 2 | 0 | | | |
| Stationery and General Printing | 26 | 1 | 11 | | | |
| Assistant Secretary's Salary | 182 | 10 | 0 | | | |
| Chartered Accountants' Fee | 10 | 10 | 0 | | | |
| Telephone | 9 | 13 | 0 | | | |
| Council and Committee Meetings, Hire of Room | 12 | 3 | 0 | | | |
| Sundries | 6 | 18 | 3 | | | |
| | | | | 309 | 5 | 0 |
| **„ "Titanic" Engineering Staff Memorial Fund :** | | | | | | |
| Clerical Assistance | 12 | 18 | 4 | | | |
| Proportionate Amount for Memorial Booklet | 29 | 18 | 0 | | | |
| Printing, Postages, etc. | 18 | 19 | 5 | | | |
| | | | | 61 | 15 | 9 |
| **„ Rates, Taxes, etc. :** | | | | | | |
| Rates and Taxes | 36 | 12 | 1 | | | |
| Gas and Electricity | 11 | 10 | 6 | | | |
| Water | 3 | 6 | 4 | | | |
| | | | | 51 | 8 | 11 |
| **„ House Account :** | | | | | | |
| Caretaker | 89 | 6 | 0 | | | |
| Coal | 7 | 4 | 0 | | | |
| Sundries | 4 | 6 | 1 | | | |
| | | | | 100 | 16 | 1 |
| **„ Insurance** | | | | 3 | 16 | 6 |
| **„ Repairs, Additions and Alterations** | | | | 4 | 16 | 5 |
| **„ Depreciation of Furniture at Institute** | | | | 13 | 9 | 1 |
| **„ Reading Room Expenses** | | | | 20 | 19 | 1 |
| **„ Papers and Discussions :** Printing and Postages | | | | 436 | 6 | 6 |
| **„ Interest :** | | | | | | |
| Denny Gold Medal | 10 | 0 | 0 | | | |
| Stephens Legacy | 2 | 10 | 0 | | | |
| | | | | 12 | 10 | 0 |
| **„ Recreation Section :** | | | | | | |
| Reception and Concert | | | | 0 | 5 | 0 |
| **„ Expenses of Annual Meeting** | | | | 9 | 1 | 4 |
| **„ Transactions Section** | | | | 11 | 14 | 6 |
| **„ Lloyd's Register Scholarship Expenses** | | | | 8 | 3 | 3 |
| **„ Depreciation of Investments :** | | | | | | |
| Consols 2½% | 93 | 17 | 1 | | | |
| Transvaal 3% Stock | 15 | 1 | 0 | | | |
| Local Loans | 59 | 2 | 3 | | | |
| India 3% | 14 | 11 | 0 | | | |
| Metropolitan Water Board (B) 3% | 12 | 1 | 0 | | | |
| | | | | 194 | 12 | 4 |
| **„ Balance, carried to Balance Sheet** | | | | 14 | 18 | 6 |
| | | | | **£1,253** | **18** | **3** |

# ACCOUNT.

**31st January, 1913.** **Cr.**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **By Subscriptions :** | | | | | | | £ | *s.* | *d.* | £ | *s.* | *d.* |
| Members | | | | | | | 1,050 | 17 | 10 | | | |
| Associate Members | | | | | | | 37 | 18 | 3 | | | |
| Associates | | | | | | | 14 | 12 | 11 | | | |
| Graduates | | | | | | | 12 | 2 | 6 | | | |
| Companions | | | | | | | 54 | 3 | 3 | | | |
| | | | | | | | £1,169 | 14 | 9 | | | |
| „ *Less* Subscriptions in Advance— | | | | | | | | | | | | |
| Members | | | | | 85 | 9 | 2 | | | | | |
| Associate Members | | | | | 2 | 1 | 3 | | | | | |
| Associates | | | | | | 4 | 7 | | | | | |
| Graduates | | | | | | 18 | 4 | | | | | |
| Companions | | | | | 0 | 19 | 3 | | | | | |
| | | | | | | | 89 | 12 | 7 | | | |
| | | | | | | | | | | 1,080 | 2 | 2 |
| „ **Interest :** | | | | | | | | | | | | |
| **Consols 2½%** | | | | | | | 22 | 16 | 4 | | | |
| **Transvaal 3% Stock** | | | | | | | 5 | 13 | 0 | | | |
| **Local Loans** | | | | | | | 14 | 2 | 8 | | | |
| **India 3%** | | | | | | | 8 | 9 | 6 | | | |
| **Metropolitan Water Board (B) 3%** | | | | | | | 5 | 13 | 0 | | | |
| **Deposit** | | | | | | | 6 | 14 | 11 | | | |
| | | | | | | | | | | 63 | 9 | 5 |
| „ **Transactions Section** | | | | | | | | | | 14 | 5 | 2 |
| „ **Advertisements** | | | | | | | | | | 94 | 15 | 0 |
| „ **General Revenue :** | | | | | | | | | | | | |
| Telephone Wayleave | | | | | | | 0 | 5 | 0 | | | |
| Billiard Table Receipts | | | | | | | 1 | 1 | 6 | | | |
| | | | | | | | | | | 1 | 6 | 6 |
| | | | | | | | | | | **£1,253** | **18** | **2** |

## THE INSTITUTE OF MARINE ENGINEERS—CITY PREMISES FUND ACCOUNT.

**For the year ended 31st January, 1913.**

| Dr. | £ | s. | d. | Cr. | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| To Bank Charges .. | 0 | 1 | 0 | By Balance at 31st January, 1912, per last Account .. | 2,154 | 0 | 7 |
| „ Balances at Bank— | | | | | | | |
| On Deposit Account | 3,985 | 0 | 0 | „ Donations .. .. | 1,829 | 6 | 0 |
| „ Current „ | 65 | 9 | 10 | „ Interest on Deposit | 67 | 4 | 3 |
| | £4,050 | 10 | 10 | | £4,050 | 10 | 10 |

N.B.—The costs of appeal, amounting to £76 10*s.*, have been advanced by the Institute, and have not yet been refunded.

95, Cannon Street, London, E.C.
*February* 21, 1913.

*To the Members of the*
Institute of Marine Engineers,
58, Romford Road, Stratford, E.

Gentlemen,—

*City Premises Fund.*—We have examined the accounts of this Fund and compared the entries for contributions with the counterfoils of receipts and certify them to be correct.

The balances at the bank have been verified.

Upon the balance of £4,050 9*s.* 10*d.* there is a charge of £76 10*s.*, the costs of appeal, advanced by the Institute, leaving available for the purposes of the Fund the sum of £3,973 19*s.* 10*d.*

Yours faithfully,
WEST & DRAKE,
*Chartered Accountants.*

## "TITANIC" ENGINEERING STAFF MEMORIAL.

**Balance Sheet to 31st January, 1913.**

| Dr. | £ | s. | d. | Cr. | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| Bank Charges .. .. | 0 | 5 | 9 | By Donations .. .. | 2,594 | 15 | 11 |
| Balance at Bank— | | | | „ Interest on Deposit | 27 | 16 | 0 |
| On Deposit a/c .. | 2,615 | 0 | 0 | | | | |
| „ Current a/c .. | 7 | 6 | 2 | | | | |
| | £2,622 | 11 | 11 | | £2,622 | 11 | 11 |

J. CLARK,
A. ROBERTSON, } *Hon. Auditors.*

JAS. ADAMSON,
*Hon Secretary.*

## ANNUAL DINNER (1912) ACCOUNT.

| Dr. | £ | s. | d. | Cr. | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| To Expenses .. .. .. .. .. .. | 217 | 8 | 7 | By Receipts .. .. .. .. .. .. | 242 | 14 | 0 |
| „ Balance carried to Balance Sheet .. .. | 25 | 5 | 5 | | | | |
| | £242 | 14 | 0 | | £242 | 14 | 0 |

## LIBRARY ACCOUNT.

| | £ | s. | d. | | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| To Books purchased .. .. .. .. .. | 8 | 2 | 9 | By Balance per last Account .. .. .. .. | 8 | 7 | 3 |
| „ Balance, carried to Balance Sheet .. .. .. | 4 | 16 | 6 | „ Donations .. .. .. .. .. .. | 4 | 12 | 0 |
| | £12 | 19 | 3 | | £12 | 19 | 3 |

# THE INSTITUTE OF MARINE ENGINEERS.

**Dr.** **BALANCE SHEET, 31st JANUARY, 1913.** **Cr.**

| LIABILITIES. | £ s. d. | £ s. d. |
|---|---|---|
| To Sundry Creditors for Printing, etc. | | 53 13 1 |
| „ Subscriptions in Advance .. .. | | 89 12 7 |
| „ Denny Gold Medal Fund .. .. | | 261 13 4 |
| „ Stephens' Legacy Fund— | | |
| Balance, 31st January, 1912 .. | 108 5 4 | |
| *Add* Interest .. .. .. | 2 10 0 | |
| | 110 15 4 | |
| *Less* Awards .. .. .. | 5 0 0 | |
| | | 105 15 4 |
| „ Library Account .. .. .. | | 4 16 6 |
| „ Annual Dinner Account .. .. | | 25 5 5 |
| „ Open Competition Account— | | |
| Donation from Mr. R. Clark .. | 2 2 0 | |
| *Less* Award .. .. .. | 1 0 0 | |
| | | 1 2 0 |
| „ Revenue Account— | | |
| Balance, 31st January, 1912 .. | 3,628 4 1 | |
| *Add* Entrance Fees .. .. | 182 5 0 | |
| | 3,810 9 1 | |
| *Add* Balance of Revenue Account | 14 18 6 | |
| | | 3,825 7 7 |
| | | £4,367 5 10 |

| ASSETS. | £ s. d. | £ s. d. |
|---|---|---|
| By Cash— | | |
| At Bank on Current Account .. | 309 2 11 | |
| „ „ „ Deposit „ .. | 200 0 0 | |
| In Hand .. .. .. .. | 3 6 3 | |
| | | 512 9 2 |
| „ Sundry Debtors for Advertisements, Tickets, etc. | | 40 13 0 |
| „ Investments— | | |
| £968 13*s.* 6*d.* Consols 2½% @ 75 | 726 10 2 | |
| £200 Transvaal 3% Stock @ 91½ | 183 0 0 | |
| £500 Local Loans @ 87.. .. | 435 0 0 | |
| £400 India 3% Stock @ 77¼ .. | 309 0 0 | |
| £400 Metropolitan Water Board (B) Stock 3% @ 80½ .. .. | 322 0 0 | |
| | | 1,975 10 2 |
| „ City Premises Fund Expenses (recoverable) .. | | 76 10 0 |
| „ Freehold of Institute Buildings .. .. | | 1,500 0 0 |
| „ Furniture at Institute— | | |
| Balance, 31st January, 1912 .. | 269 1 3 | |
| Additions .. .. .. .. | 1 0 | |
| | 269 2 3 | |
| *Less* Depreciation .. .. | 13 9 1 | |
| | | 255 13 2 |
| „ Rates and Taxes in advance .. .. .. | | 6 10 4 |
| | | £4,367 5 10 |

95, Cannon Street, London, E.C.
*February* 21, 1913.

*To the Members,*
The Institute of Marine Engineers,
58, Romford Road, Stratford, E.

Gentlemen,—

We have to report that we have examined and checked the accounts of your Institute for the year ended 31st January, 1913.

2. The Revenue Account shows a profit of £14 18*s.* 6*d.*, as against one last year of £159 0*s.* 4*d.*, a decrease of £144 1*s.* 10*d.* This is after writing down the value of the investments by £194 12*s.* 4*d.*, and charging for *Titanic* Engineering Staff Memorial Fund Expenses £61 15*s.* 9*d.*, so that apart from these special charges the balance of revenue shows an improvement upon that of last year to the extent of £112 6*s.* 3*d.*

3. The gross revenue for the year is £1,253 18*s.* 3*d.*, an increase of £126 4*s.* 4*d.*, made up as follows :—

| | £ | *s.* | *d.* |
|---|---|---|---|
| Subscriptions | 84 | 3 | 3 |
| Advertisements | 27 | 15 | 0 |
| Interest | 11 | 2 | 0 |
| Transactions Section | 3 | 0 | 1 |
| General Revenue | 0 | 4 | 0 |
| | £126 | 4 | 4 |

4. The expenses charged to Revenue Account amount to £1,238 19*s.* 9*d.*, an increase of £270 6*s.* 2*d.* This is almost entirely accounted for by the expenses of the *Titanic* Engineering Staff Memorial Fund, and the depreciation of investments ; which together account for £256 8*s.* 1*d.*, leaving as the increase in normal expenditure £13 18*s.* 1*d.*

5. The City Premises Fund appears as a debtor to the Institute for £76 10*s.*, the amount spent for the purpose of procuring contributions to the Fund. The amount is recoverable from the Fund.

With the exception of this amount no entries relating to this Fund appear in the Institute's books. The accounts of the Fund have been submitted to us for audit and form the subject of a separate report.

6. The investments have been valued at the market prices on January 31, 1913.

7. We have obtained all the information and explanations we have required. In our opinion the Balance Sheet of your Institute has, subject to the exclusion of this Fund, been properly drawn up so as to exhibit a true and correct view of the state of the Institute's affairs according to the best of our information and the explanations given us and as shown by the books of the Institute.

8. We have inspected the title deeds of the freehold property and have verified the investments and the balances at the bank.

We are, gentlemen,
Yours faithfully,

WEST & DRAKE,
*Chartered Accountants.*

In presenting the Balance Sheet and Revenue Account, Mr. A. H. MATHER (Hon. Treasurer) said : I have pleasure in informing the members that we are in a very good position financially. As a result of the year's working we have a balance to our credit, and although it is not up to the same high figure as we have had in previous years, I think you will agree that the principal reason why it is not higher is one which is necessary to keep the finances of the Institute in proper condition. The credit balance on the Revenue account is £14 18*s*. 6*d*. as against £159 last year. The principal reason why it is so small is on account of the revaluation of the investments. Most of these have not been re-valued since the time they were purchased, and as there has been a tendency in recent years for prices to go down, it was thought advisable to re-value them at the end of the financial year, at the current price. As a result £194 12*s*. 4*d*. had to be written off. In addition, the expenses of the *Titanic* Engineering Staff Memorial Fund, amounting to £61 15*s*. 9*d*. have been paid by the Institute, and these two items, you will see, put quite a different light on the matter of the balance. The variations in connexion with the expenses have not been very serious ; postages have increased naturally with the increase of membership ; the amount for the hire of rooms in the City has increased by £5, chiefly due to the two Extraordinary General Meetings held last year in the Liverpool Street Hotel and to extra Committee meetings ; rates and taxes have increased slightly. There is a decrease in the expenses in connexion with the Lloyd's Register Scholarships owing to printed matter in connexion with last year's examination being obtained and charged for at the end of the previous year. The amount spent on papers and discussions was £436 4*s*., an increase of £5. In regard to the receipts, there has been an increase in subscriptions of £84 3*s*. 3*d* ; advertisements £27 15*s* ; and interest on investments £11 2*s*., as compared with last year. With regard to the Recreation Section, last year we had a loss to record in connexion with the Reception and Concert amounting to about £16. Unfortunately, from a social point of view, we have not had a similar gathering this year ; but inasmuch as there is no deficit to record in this respect, we cannot say that it is altogether a matter of loss to the Institute. With regard to the Balance Sheet, the items on the Liabilities side show very little variation, with the exception of an item of £25 carried forward to the Annual

Dinner account. The amount received for entrance fees is £182 5*s*., an increase of £23 4*s*. 8*d*., and the total amount carried to the balance of the Revenue Account is £197 3*s*. 6*d*., in spite of the fact that £286 6*s*. 1*d*. has been written off for abnormal expenses. The Deposit Account shows a decrease of £400. This sum was withdrawn and augmented by the amount of £257 12*s*. for the purchase of £400 India 3 per cent. Stock and £400 Metropolitan Water Board "B" 3 per cent. Stock. These are added to the list of investments, which, after being re-valued at the prices of January 31, 1913, now amount to £1,975 10*s*. 2*d*. In this connexion I might say that the Hon. Auditors, who went through all these accounts very closely and with very great attention, recommend a re-valuation yearly instead of having to make a large adjustment after the lapse of a few years.

Mr. Jas. Shanks: Mr. President and Gentlemen. It gives me very great pleasure to propose the adoption of the Reports for the past year. Mr. Adamson has given us a very clear description of the work accomplished during that time, and it is a very difficult thing to put the record of such a large amount of work accomplished into such clear and concise form. I think it is customary for the proposer of this motion to pass a few remarks on one or two of the principal points referred to in the report. It is satisfactory to know that the membership has continued to increase. The obituary list, unfortunately, is a very heavy one this year. Among the deaths, as Mr. Adamson has pointed out, is that of our first President, Mr. Asplan Beldam, who, we are very sorry to think, has not lived to see the fruition of what was one of his great desires in connexion with the Institute, the erection of the new City premises. The other death specially referred to is that of the Chief Engineer of the S.S. *Titanic*. Mr. Bell's death appeals to us in a very pathetic manner. It has brought forward pre-eminently the perils connected with the profession of the sea-going engineer, and the manner in which he is called upon, not merely to think of his own safety, but, first of all, of his duty to others. In this connexion I think it is satisfactory to see that the *Titanic* Fund has made such good progress, and I am sure you will all agree that the proposal of the Council to commemorate the event in a way which will benefit the widows and orphans of marine engineers, is one which is most satisfactory and

which will keep alive the memory of these brave men from generation to generation. At the present day I think marine engineering is in the most interesting state in which it has ever been, at least in my lifetime, and when we consider the future of marine engineering and the future of this Institute, it is absolutely necessary, in my opinion, that the Institute should have premises in the City. Attention is drawn in the Report to the fact that a site has been procured and negotiations for the lease are nearly completed, so that we may reasonably hope that the building will soon be started. Although the amount of money at disposal at the present moment is not nearly what it should be to put the City Premises on a sound financial basis, undoubtedly, when the building is started, all marine engineers will interest themselves in doing their best to get sufficient funds together to enable us to open these new premises entirely free of debt.

In reading through the Report, I was struck by the great importance of the papers read, and the discussions held during the session. I had the curiosity, in that connexion, to turn up the Memorandum and Articles of Association, and I found that the first three paragraphs in the Memorandum embrace practically the whole of the objects for which the Institute was founded, which may be summed up in one sentence, the education of the marine engineer. I think you will all agree that the education of the marine engineer is principally connected with the papers read before the Institute, and during the past year the papers which have been read have been equal in value to those presented before any kindred Institution in the country. Lately I have been taking a little more interest in connexion with these papers, and although, sometimes, the meetings have been very well attended and the discussions have been excellent, unfortunately, at times, they are not attended as well as one would like. We all know that the true value of a paper can only be found out by discussion. No matter how good the paper may be, or how thoroughly acquainted the author is with his subject, there may be some points connected with it which require to be elucidated and which can only be ascertained from the experience of those who take part in the discussion, and for that reason I should like to emphasize the importance of as many members as possible coming to hear the papers read and taking part in the discussions.

Another matter I wish to refer to is the training of young

engineers. I think it is very satisfactory to see that the Institute is taking a keen interest in encouraging the young engineer to become a credit to the Institute and to his profession, by means of the awards and the Lloyd's Register Scholarships referred to in the Report. I do not know, but I have the impression that these are not widely enough known. The great value of these awards and Scholarships should be more widely known and it is our duty to speak more about them and bring them more prominently before the young engineers of the present day, because the future of the Institute must depend upon the younger men. For that reason I should like to see more activities made in connexion with the education of the young than there are at the present time.

Our President referred to the death of Sir William White, which only took place last week, and I am sure we all agree with the remarks he made in connexion with this great loss, not only to this Institute, but to Naval Architecture throughout the world. I had made a note to draw your special attention to the last paragraph in the Report ; but I think I have spoken about that already in connexion with the discussions on the papers. In that paragraph Mr. Adamson refers to the " enthusiasm, latent in many, which should be enkindled to take a warmer interest in the details of the work of the Institute." I think a remark like that cannot be too strongly emphasized.

In connexion with the Revenue Account and Balance Sheet, I think Mr. Mather has placed a very satisfactory statement before us. He has shown clearly that the Institute finances at the present time are in a very good condition, and the Council are to be congratulated in taking the wise step of writing down the value of their investments to the present market values. I entirely agree with the suggestion made by the Hon. Auditors that this should be done yearly. Curiously enough, before coming here to-night I looked up the market prices of all these investments, and found that since January 31, some of them have depreciated considerably, and it is very unwise to let this go on year after year, without writing them down. But, despite all that, and also the fact that the costs in connexion with the *Titanic* Engineering Staff Memorial Fund have been paid by the Institute, which I am sure you will all agree is entirely necessary, we are still on the right side, and if you turn to the Balance Sheet you will find that our assets have been increased by £189 during the year. Taking

all this into consideration I think the financial condition of the Institute is very satisfactory. I have very much pleasure indeed in proposing the adoption of the Report.

Mr. R. H. DALTON : Before this motion is seconded I should like to ask, with reference to the value of the furniture at the Institute, stated as £255 13*s*. 2*d*., if that is a recent valuation.

Mr. MATHER : The valuation was made some years ago, but a certain amount is allowed each year for depreciation.

Mr. DALTON : I think £255 is rather a high figure at which to value the furniture.

Mr. MATHER : I do not think, when the value of the various items is considered, that it can be regarded as in any way excessive.

Mr. J. R. RUTHVEN : I presume the amount includes the value of the billiard table, paintings and specimens.

Mr. MATHER : Certainly.

Mr. J. R. RUTHVEN : If that is so, I think it is a reasonable figure.

CHAIRMAN : I think that matter will be attended to during the year. I see the depreciation is at the rate of 5 per cent., which may possibly not be sufficient. However, with the prospects of new Premises, etc., in view, I take it that the whole of the furniture in the present rooms will be dealt with in the near future.

Mr. J. CLARK : I have much pleasure in seconding the adoption of the reports and the financial statement, so ably proposed by Mr. Shanks. It is encouraging to observe that the addition to the membership last year is greater than the addition in the year previous, being an increase of 66 as against 56, and while it may be said that numbers are no guide as to real prosperity it must be admitted that the fact of engineers desirous of becoming associated with an Institute such as ours is a tacit testimonial to the good work accomplished. Most, I feel sure, will endorse the views of those responsible for the

financial statement with regard to writing down our investments to their current market value. The correctness of such a policy is apt to be a thorny question, but without doubt it is a wise provision in our particular case, especially in view of the possible early realization of some, at least, of these investments, in connexion with the acquisition of City premises. It will be observed that advertisements show the handsome gain of over 40 per cent., on last year's figures. This is very gratifying, and I venture to believe that a great deal more may be made of this as a source of revenue, with corresponding benefit to advertisers, members and Institute alike. There is an item in the accounts we can all be proud of, but because of the modest way it appears it is not very evident, that is, the sum of £61 15*s*. 9*d*. which has been charged to the Institute in connexion with, or, put in another way, represents the Institute's subscription to, the *Titanic* Engineering Staff Memorial Fund. Mr. Shanks particularly referred to the last paragraph but one which winds up the Report. This should, if I may say so, have appeared in heavier type. It sums up in few words all that is necessary for the good and prosperity of the Institute. We all hope to see the membership increase, but we really want to see the individual member take a more personal interest in the Institute's affairs, and certainly one of the ways of doing this is to support its meetings, which, I can say without fear of contradiction, never disappoint. Without personal interest by the individual, progress is not possible of attainment. There are quite a number of subjects brought to our notice in this Report, which is a particularly full and interesting one, but I am afraid I have already exceeded the time allotted to me on the programme, and can only add that it gives me much pleasure in being privileged to second its adoption.

The motion was then put to the meeting and carried unanimously.

Mr. J. G. HAWTHORN : I rise to perform one of the most pleasing duties that can devolve upon any of the members here to-night, and that is to propose a vote of thanks to our retiring President. When we review the work of the Institute during the past year, one must be impressed by the great amount of interest the President has taken in that work. He has presided at our meetings on four different occasions, and

had it not been for the severe illness by which he was attacked towards the end of the year I am sure he would have been with us at several other meetings. We are all very pleased to see that he has quite recovered from his illness and is able to be with us to-night. In speaking on this subject one is apt to look back and think of some of our former Presidents, and although I am not going to criticize by comparison, in doing so one can realize more fully what Mr. Hunter has done. I might make use of an old simile. If you walk through one of our Dockyards, you will see on the terrace, figureheads which used to be on the old line of battleships, and just as these old ships used to be known by their figureheads, so the Institute is known by its Presidents. Even to have their names associated with the Institute gives it a certain status. But Mr. Hunter has been more than a figurehead. I do not think we have had a harder working President than we had last year, one who not only takes a personal interest in the education of young engineers, but devotes a considerable amount of time to their advancement and welfare. It is hardly within my province to eulogise our President in his presence, nor am I able to do so sufficiently ; but as one of the first members of the Institute I would say that it has been a great pleasure at all times for us to be brought into contact and association with Mr. Hunter, and I regard it as a privilege to propose a hearty vote of thanks to him for his services during the past year.

Mr. H. Ruck-Keene : I have very much pleasure in seconding the vote of thanks to the retiring President. Mr. Hawthorn has proposed this vote so eloquently that he has left me little to say. In looking over the names of the Past Presidents we may well be proud, and of none of them should we be more so than of Mr. Summers Hunter. Though a very busy man, yet he has found much time to devote to the Institute, and he has furthered its interests in many ways. In connexion with the City Premises scheme he has helped us very much indeed, both financially and in other ways, and I feel sure he will be pleased to know that to-night, before his term of office has expired, the Council have been able to sign the preliminary agreement for the lease of the site on which the new premises will be erected. I am sure Mr. Hunter will give to

the Institute the same amount of support as a Past President as he has given during his term of office.

The vote was carried with applause.

Mr. SUMMERS HUNTER : I rise with mingled feelings to thank you for this very kindly vote. I say with mingled feelings, because it is always a regret to part, even if only temporarily, from one's friends, and during my year of office I have been amongst real friends in every sense of the word. In giving up this position, I feel that I have not done so much as I ought to have done. I suppose that will be the case to the end of the chapter—very few of us do all that we might—and with regard to the Institute, that is distinctly my feeling. The City Premises Fund, for instance, has not increased so rapidly, perhaps, but I feel sure that the work of the Institute is becoming very much better known, and that shipowners in particular are appreciating the importance of the Institute. I think a copy of this report should be in the hands of every shipowner. It indicates the important work the Institute does, and, although very briefly, it refers to what the engineer of the future has to prepare for. I do not know of any medium ; I do not know of any society that has it in its power to do as much for the sea-going engineer as this Institute, if the efforts are rightly directed. Of course a great deal can be done by individual effort, but, after all, much more can be done by co-operation and associated effort. Therefore I look forward to the future of this Institute with the assurance that it will be an absolutely successful one. In addition to the City Premises Fund, what I would call the Reserve Finances, require strengthening. Other Institutions have passed through similar financial difficulties, but all have realized the necessity of an endowment for having a steady income apart from subscriptions. For instance, the printing of the *Transactions* costs over £400. It may appear a large sum ; it is a large sum for some other Institutions I have had experience of, and it is large for this Institute ; but without that expenditure your Transactions would not be so valuable. You have good Papers, which must have illustrations, and which must be dealt with properly and out of recognition to the authors, as well as for the benefit of those who receive them. This, and other expenses, should not depend upon members' subscriptions. I do not say for a

moment that the Institute is going to be in difficulties ; but I think it would be well to consider the advisability of increasing our funds so as to provide a steady income to meet the expenses such as I have referred to, and by doing so the permanency of the Institute will be secured. How this fund is to be raised in the face of the City Premises Fund is, perhaps, a rather difficult question, but I believe we shall yet receive considerable subscriptions from shipowners. Last year was one of the most successful the shipping industry has ever experienced. After a period of dull trade, freights have improved, the trade of the world has increased, and I think it only requires some further appeal of a somewhat stronger nature, perhaps, to be made in order to get a good response. I have spoken to several shipowners who appreciate the work of the Institute and its importance, and who agree that something must be done to bring the young engineers forward and to keep those who are older up to date in regard to all these modern developments. The report refers to the importance of the *Transactions*. They are most excellent books. During the year I see a good many sea-going engineers, not only in connexion with my special business, but at sea. In some of the berths I see copies of the *Transactions ;* but some of the engineers do not appear to know anything about them, and I have a feeling that they should be more widely distributed. How this is to be done is rather difficult to say, but the papers are so important that if they could be distributed to the engineers at the different ports it would be doing a great deal for the benefit of the profession. Before concluding, there is another point I would like to mention, and that is in connexion with the fuel tests. That is a most important paragraph, and I feel it is a paragraph that will appeal most strongly to shipowners. At any rate, it is a " burning " question ; and to-day it is very much so. I think Mr. Milton has before him every day the question of high temperatures and other matters of that kind. It is an important work, and if it can be carried on and the knowledge arrived at distributed amongst engineers, it will help to remove a great many difficulties, not only in connexion with the steam engine, but with the internal combustion engine also.

I take this opportunity of thanking you all, your Hon. Secretary and others who have always been most willing to give me any information and help I may have required from time to

time. I feel that I could not have carried out the work without the cordial assistance of those in connection with the Institute. I thank you for your kind assistance, and I assure you I value very highly indeed, and will always remember with affection, the time I have been associated with you as President, and will take every opportunity that occurs to me to advance the interests of the Institute.

Mr. GEORGE ADAMS : I have pleasure in proposing a vote of thanks to the office-bearers and members of Council.

It must be admitted that the work of the Institute during the past session has been most satisfactory : the *Transactions* have maintained their high standard of quality, and the financial interests of the Institute have been carefully guarded ; this year also marks the actual commencement of the City Premises Building Scheme—all of which tends to show the efficient manner in which the Council have discharged their responsibilities.

The Institute has been particularly fortunate in having had on its Council, and latterly as the Chairman, Mr. J. T. Milton, a gentleman of high ability and who occupies a unique position in the engineering world, and who has shown great interest in the Institute and its proceedings during the whole time he has been associated with it.

The gentlemen comprising the Council and office-bearers have all devoted their time and talent to further the interest and welfare of the Institute, and I have much pleasure in proposing that the best thanks of the members be accorded them for their services.

Mr. J. H. REDMAN : I have very much pleasure in seconding this vote of thanks to the office-bearers and members of Council. Many of us do not sufficiently realize the amount of time they spend in the service of the Institute, seeing the distance they have to travel to attend the meetings of Council and the meetings of the Institute.

Mr. J. T. MILTON : As Chairman of Council about to retire to-night, I offer you my sincere thanks on behalf of myself and of the other Members of Council and Office-bearers for the vote of thanks you have accorded to us. It has been said to-night that the work has been very heavy. It is arduous

sometimes, but it is always pleasant to do the work of this Institute, and I am sure none of it has been done grudgingly. Whatever we have done has been done with pleasure, and we are glad to think that it has borne good fruit. The new Members of Council who will be elected to-night will, I am sure, take on their duties in the same spirit. Of course some of our Office-bearers are always with us ; the Hon. Secretary and the Hon. Treasurer do not go out of office and it would be a very bad thing if they did, as the work of the Institute would suffer in consequence. Personally, I have been on the Council for the last four or five years, and my going off will mean, perhaps, a little relaxation, as has been suggested, but I assure you I shall not cease to work for the Institute. I have no doubt I shall do as much during the coming year, which will be a strenuous one, as ever I have done. At least I shall try to do so, and I hope to be as successful as in the past. On behalf of the Office-bearers and Council I again thank you.

Mr. JOHN MCLAREN : It is my pleasing duty to propose a vote of thanks to the Hon. Auditors, Messrs. J. Clark and A. Robertson, and also to move their re-election. These gentlemen are in the position of " the man behind the gun." One never sees them at work, but they go through the accounts and figures, and we get the results at the Annual Meeting. They are silent workers, and I think the best thanks of the members are due to them for the trouble they have taken throughout the year and I propose their re-election.

Mr. J. R. RUTHVEN seconded the motion which was carried with applause.

Mr. A. ROBERTSON : On behalf of Mr. Clark and myself, I have to thank you for the way in which you have received this vote of thanks, and for re-electing us as Hon. Auditors. It has been a pleasant task in the past, and we shall be pleased to carry out the duties as well as we are able in the future.

Mr. J. HALLETT : I have much pleasure in proposing a vote of thanks to, and the re-appointment of, Mr. William Archer as Hon. Solicitor. As most of you are aware, Mr. Archer has performed the duties of this office for many years past, and he has always placed at our disposal his best talents,

which are very considerable. Personally, I have lately laid him under a very heavy contribution in connexion with the City Premises scheme, and I can assure you that, although the demands upon him have been heavy, he has always performed them in the best possible way, and I don't know what we should have done without his assistance. I am only afraid that he will be applying for a rise in salary. If so, I should have pleasure in proposing that it be doubled, as once suggested by Mr. Milton.

Mr. W. E. FARENDEN : I have very much pleasure in seconding the vote of thanks to our Hon. Solicitor, Mr. Archer, for watching over the interests of the Institute. I have pleasure also in seconding his re-appointment.

CHAIRMAN : I am sure this proposal will meet with approval.

The vote was carried with applause.

Mr. W. ARCHER : In thanking you for your kind appreciation of my services, I should like to tell the truth in expressing my feelings of pride and pleasure in representing an Institute, one of whose mottoes is " Ahead."

CHAIRMAN : We have now some time allotted to us on the programme for Recommendations and Suggestions from Members.

Mr. JOHN MCLAREN : I hope I am not out of order in bringing up a matter which I hope the Institute will take up at some future time. We hear a good deal said about the Royal Naval Reserve and the position of the engineer, and I was very much impressed at the Annual Dinner with the speech made by our President in which, I think, he struck the nail on the head. To refresh your memories I will quote an extract : " The sea-going engineer, in whatever class of vessel he serves, is a national asset ; he is of value to the nation, but to maintain this value, he must be kept abreast of the times, fully informed as to the advancement and progress in engineering science." With regard to the merchant service he has been kept well to the front, and I should like to refer for a few moments to another side of the question. The defence of this country

is a matter which has been before us for some time, and attempts have been made to strengthen the territorial force on shore and the reserve of deck officers for the Navy. There has been great consideration to see that the deck officer gets as many honours as possible ; but I am surprised to find that the Admiralty has ignored the marine engineer altogether. At one time a marine engineer could have the honour of belonging to the Royal Naval Reserve ; but all that is now changed, as the list was closed some years ago. At present, the Naval Reserve engineer takes second place to one who is in fact an advanced stoker, however else he may be called. I wish to bring before the members of our Institute the question of the unfairness shown to the educated men such as we have serving as engineers in our merchant navy, in order that, perhaps, some representation may be made on the subject to the Admiralty. The marine engineer is worthy of more consideration. He has done more for his country than most men ; he has, as we might say, shortened the distances between this country and the colonies ; he has been largely instrumental in placing this country in the first place in regard to shipbuilding and engineering ; he has designed engines and machinery for every fighting force in the world, including our own ; he is capable of running the largest steamships afloat ; yet our Admiralty cannot find any use for him in the Reserve force. I maintain that our merchant navy engineer is, as our President stated, a national asset, and a very valuable asset ; so valuable that our country cannot afford to ignore him. We are at present calling for men for our defence ; and here are men willing to give the experience of their lifetime for the benefit of their country. I venture to say such men would prove a credit to His Majesty's Navy, and places should be found for them with a rank and dignity consistent with their abilities. If ever we should venture upon a naval war, the engineer would be the first man to be called upon, therefore in time of peace he should be given an honoured position as a volunteer defender of his country. Lately I have had occasion to mix with a number of admirals, commanders, and other officers, and they seem to have the idea that the marine engineer is only capable of running a small tramp ship. I resent strongly assumptions of that kind. I am glad to see some Naval Reserve men present to-night, and I am sure we would value their opinion ; but I think the

Institute should lay the facts before the Admiralty for their consideration.

CHAIRMAN : Mr. McLaren has touched upon a very important question, and perhaps it is too big a subject to come to a conclusion upon it to-night. I think his remarks are intended to apply more to getting experienced men in the Naval Reserve. I have no doubt the services of such men would be very valuable and the Government ought to make use of them and give them an inducement to join. I fancy this Institute will be able to do something when it is better known in the City and to the world at large. It is part of the work of the future, although, perhaps, something may be done in the immediate future. There is no doubt, I think, about the shortage of officers in the Navy, but the requirements are such that one man may be suitable for deck work and executive work,and others for engineering work and so on.

Mr. MILTON : I think it is evident that if there is a shortage of officers in time of peace there must be a much greater shortage in time of war, and some provision should be made in time of peace to have the right men to be called upon. I gather that there is a Naval Reserve of engineers.

Mr. MCLAREN : I understand that four or five years ago the list was closed and no more have been taken on since. The engineers at present on the Naval Reserve are under different conditions. My position is that engineer officers in the mercantile marine should have an opportunity of serving on the Naval Reserve.

Mr. MILTON : There was one point in connexion with this that I always used to notice in looking over the Navy List. When they changed the title of the engineer officers from Engineer, Chief Engineer, Staff Engineer and Fleet Engineer, into Engineer Lieutenants and Engineer Commander, they did not also change the title of the reserve men, and that, in a measure, seemed to brand the latter as inferior. For one man to be called Engineer Commander or Engineer Lieutenant and another performing the same duties simply Engineer or Assistant Engineer did not seem to be quite fair.

Mr. P. BOYD, R.N.R. : I served in the Royal Naval Reserve

as Senior Engineer, and retired with the rank of Chief Engineer, which is equivalent to that of Engineer Commander R.N. It is to be observed in this connexion that the Royal Indian Marine, which takes precedence of the R.N.R., have not altered their ranks of Chief Engineer, Engineer and Assistant Engineer. The list of Commissioned Engineer Officers of the R.N.R. was closed in 1908, and since then only a few and specially qualified engineers have been allowed to join the R.N.R. direct as Warrant Engineers, all other candidates for admission having to enrol as Engine-room Artificers. This is causing a great deal of ill-feeling among the leading engineers of the mercantile marine. The mate enters from the merchant service as a commissioned officer, but the door is shut to engineers. I know one young man in particular who was asked to take the rank of Warrant Engineer. He possesses an Extra First Class Board of Trade Certificate of Competency, and as far as social qualities are concerned, would stand favourable comparison with any of the Engineer Officers in the Navy.

Mr. JAS. ADAMSON (Hon. Secretary): I think the present condition of affairs is entirely due to the official memorandum issued some years ago, and I do not see how it could well be otherwise considering the way in which that memorandum was framed. My own comment at the time was that those who were on the deputation * had "asked for bread for the engineers and had got a stone," and it seemed to me that we would inevitably be drawn into the condition we are in to-day. I think, with Mr. McLaren, that we should do something and that is why I referred to the matter in the Annual Report. We know that when Royal Naval Reserve engineers now go for training, they may be put under a Stoker Mechanician and, naturally, they resent such an indignity. That is where the shoe pinches, and until the present conditions are altered or amended, I do not see how they can do otherwise than protest.

CHAIRMAN: I think an Institute of this kind, the majority of whose members hold important positions in connexion with the merchant service, would be justified in forming a Committee to consider the matter. It may become a national question soon.

Mr. A. E. BATTLE: Some eight or nine years ago, I was approached by a canvasser, who expressed the opinion that

* See vol. xiii., *Transactions*, August, 1901.

the marine engineer of the merchant service was not fit to enter the Royal Navy as an Engineer Officer. That man was a consulting engineer. I do not know whether it is the view of other consulting engineers, but if it is I am very sorry. At the same time he sent me a copy of a journal containing a report, which stated that the engineers had at last got what they had asked for, and that was a retaining fee. What is this retaining fee ? It means that, after thirty years' service, at the age of sixty, they shall receive a pension of £10 a year. It is worse than the Old Age Pension. We all know that the marine engineer and the deck officer are drawn from the same class in society ; they are drawn from the same families in many cases. But there is this difference, that the man on deck goes to sea when he is young. He is removed from society, with the exception of the small circle on the ship. He has one man to look up to and that is the captain ; while the engineer, who is ashore up to the age of twenty-one, is associating with the big bulk of humanity. In rubbing shoulders with everybody he has a better opportunity of getting a wider outlook. The boys are probably equal as regards scholastic attainments. They both enter the merchant service ; but while one is received from there into the Navy with open arms, the other is told to take a lower rank. It is time something was done to remedy this, and I think this Institute should point out these things to the authorities and take the matter up on behalf of the engineers.*

Mr. J. Hallett : I should like to ask whether it is not a fact that this subject was discussed by the North East Coast Institution of Engineers and Shipbuilders. I think Mr. Morison read a paper on the subject, and I should like to know what the result was.

Chairman : The circumstances were such that I was in the Chair on that occasion. The object of that discussion was to endeavour to improve the status of the engineers in the Royal Navy and to obtain for them a better rank. But a change has been going on all the time in the Navy, a change in the warships themselves, especially since the introduction of steam, and with these changes there has been a gradual change in the conditions of service of the men. I should say that the commanding officer of a warship to-day is more of an engineer than anything else, and in future he will be even more so. The paper

* See discussion on "Technical Education," vol. xvi., 1905.

referred to was widely discussed and published, and no doubt it drew the attention of the naval authorities to the position of the engineer, and so helped to improve his position. *But what we are faced with now is something different, it is more a question of the shortage of officers, and it is for us to discuss how we can be of service by placing at the disposal of the country thoroughly qualified and trained men. The necessity for them might be felt at any time, and I have no doubt, without reflecting in any way upon experienced men, there are many young men passing the Board of Trade examinations each year, young men of very considerable attainments, well educated and well trained, who, after a year or two of training on a warship, would be quite competent to take leading positions.

Mr. HALLETT: Would not the question form a suitable subject for a paper to be read and discussed at the Institute later?

CHAIRMAN: It has been ventilated now and ventilated in a satisfactory way; but I do not think it would be wise to hold what might become a public discussion too soon. We might be premature. I think it is quite a fitting subject for discussion and consideration, but whether it should become public or not I am not quite prepared to say.

Mr. JOHN THOM: Would it not be possible to have a representative in Parliament for certificated engineers? There is a great number of men out of the country in the merchant service, who have no one to speak for them. I do not see how it is possible at the present moment, but when the suggested re-distribution of seats takes place, it might be possible for this to be arranged.

CHAIRMAN: That is a very useful reminder that we had an engineer in Parliament some time ago who did some very useful work; I refer to the late Sir William Allan. Unfortunately, when he died there was no one to continue the work. He did a good deal for engineering in many ways during the time he was in Parliament.

Mr. MCLAREN: I would like to suggest that the new Council should appoint a Committee, which need not be solely confined to the Council, to go into the whole question and to draw up

* See Mr. Morison's paper and discussion, vol xii., 1900.

a report which could be submitted to the Admiralty for consideration. With regard to the remarks which have been passed with reference to the education of the marine engineer, I think the engineers in the merchant service are quite qualified to take their place as Engineer Officers in the Navy as far as education is concerned. I do not think it is a matter of education, I think the trouble is that they do not know how things are situated at headquarters, and the sooner this is put right the better.

Mr. A. H. MATHER : I think this is a most important subject which Mr. McLaren has brought before us, and it is evident that others have had it in mind in view of our President's remarks at the Annual Dinner and the reference in the Annual Report. It is a point that requires attention, and I think the suggestion that the new Council should appoint a Committee to deal with it is the best thing we can do. It is a matter that should be dealt with carefully and not in a narrow spirit. As Mr. Hunter has said the point at the present time is that there is a shortage of officers for the Navy, and although this is felt most severely in connexion with the deck officers it will eventually be felt in connexion with Engineer Officers also. We should therefore put it forward as a suggestion to the Admiralty that the Institute is prepared to suggest men for duty in the engineering department, and I think the new Council should take up this work, which should prove a great service, not only to the engineers themselves, but to the Admiralty and to the country itself.

CHAIRMAN : The remarks of the last speaker are very appropriate. Personally, I think it is a subject to be taken up, but it must be dealt with on a high plane and in a manner worthy of the Institute. There is still time for any other recommendations or suggestions.

Mr. W. E. FARENDEN : A suggestion has been made to me by one or two members. We have heard to-night that some of our meetings are poorly attended, and in order to obviate this it is suggested that copies of the papers should be sent in advance to certain members who may be specially interested in the subject, with the request to attend the meeting and contribute to the discussion. It might add in some way to the value of the discussion, and I believe it is done by other institutions.

The HON. SECRETARY : That is very largely done, and we had the testimony of one or two members at recent meetings, thanking us for sending the proofs to them in advance. Of course we cannot always get the proofs three or four days in advance ; but as a rule we do so and issue them in the way indicated.

Mr. MILTON : And copies are invariably sent to those who make application for them, I understand.

Mr. SHANKS : Would it not be a good thing if a reminder were sent ? I was very thankful to receive a reminder from another Institution of a meeting about which I had entirely forgotten. If that is largely done, I never get them. I have to depend entirely upon the quarterly syllabus card.

Mr. J. G. HAWTHORN : Every member knows that there is a meeting on at the Institute practically every Monday evening throughout the session. It is only necessary for him to look up his card to see what the subject is, and if it is interesting to him let him come to the meeting.

Mr. MATHER : I would point out that the notices of the meetings are given each month on the cover of the Transactions as well as on the card.

The CHAIRMAN then called upon the Scrutineers of the Ballot Papers to present their Report.

Mr. W. J. N. BRETT : On behalf of Mr. Ross, and myself, I now submit the report of the Scrutineers. 182 papers were received ; eleven were spoilt, and were therefore disqualified, leaving a nett total of 171. The following is the result of the voting :

President : Mr. Thomas L. Devitt.

Hon. Secretary : Mr. Jas. Adamson.

Hon. Treasurer : Mr. Alex. H. Mather. Members of Council : Messrs. George Adams, Robt. Balfour, E. W. Green, J. G. Hawthorn and J. A. Mannell.

CHAIRMAN : I can assure you I have heard the names read with very great interest, especially the name of the new President, Mr. Devitt. You are getting a man with a long experience ; one who is most prominent in the shipping world, and who will, I am sure, work very heartily for the Institute. I congratulate

you very much on Mr. Devitt having been elected and having agreed to accept office.

Mr. A. BOYLE : A vote of thanks to Mr. Hunter as President for last year has already been moved, seconded and approved, and it is a matter of some difficulty to move a second vote of thanks to the same gentleman on the same evening ; but while we have thanked Mr. Hunter for the great deal he has done for the Institute during his year of office, which has just closed, he has placed us under a further debt of gratitude for the manner in which he has occupied the Chair this evening. It has been my privilege on many occasions to propose the vote of thanks to the retiring Presidents and I have always been able to point out how great a right we have to be proud of the men who have occupied that office. It has been said that we have reluctantly drawn them from every part of the country but Scotland. That is not true. It has also been said that we are not particularly fond of finding our Presidents among engineers. That, likewise is not correct. But although we have gone from the marine engineer to the shipbuilder, and from the shipbuilder to the shipowner and back again to the marine engineer, all the Presidents we have had have been gentlemen distinguished in their spheres of life. We have had eminent shipowners, shipbuilders in the front rank and scientists like the late Lord Kelvin. The late Sir William White we all knew as one of our Past Presidents ; and just as in all these Presidents we have had distinguished men ; in Mr. Summers Hunter we have one who is quite in the same ranks as those Presidents of former years. I am sure you will pass very heartily this vote of thanks to Mr. Hunter. He has travelled a long distance to preside. We can always say that with every new President we have gained a new friend, and not only a new friend, but a lasting friend, and so, I am sure, it will be with Mr. Hunter. I have much pleasure in proposing this vote of thanks to him as Chairman of our meeting to-night.

The HON. SECRETARY : I have very much pleasure in seconding the proposal put before you by Mr. Boyle.

CHAIRMAN : I thank you again for the very kind way in which you have responded to this vote of thanks. It was very kind of Mr. Boyle to speak as he did, and I can assure you that

although I have travelled here purposely for the meeting it has been a great pleasure to do so. In choosing your Presidents, I do not think you need ever have any hesitation in asking prominent men from a distance connected with the shipping industry, and any one who accepts will, I am sure, take up the work and do it with interest, because the Institute is becoming well-known. The office of President of this Institute brings one into touch with other Institutions. On several occasions I have represented the Institute at public functions, and, incidentally, have brought the Institute into greater prominence. Any references to the Institute have been very well received, and any feeling that may have existed at one time in connexion with the Institute is rapidly disappearing, in fact I may say has disappeared ; I refer to any misconception that may have existed as to the aims of the Institute. I say again that our work should be on the highest possible plane. Again I thank you, and can only say that in the future I shall use every opportunity to assist the Institute.