



THE ANNUAL DINNER.





SOME OF THE GUESTS.



IN THE BALMORAL ROOM.



# The INSTITUTE of MARINE ENGINEERS

Founded 1889.

Incorporated by Royal Charter, 1933.

Patron: HIS MAJESTY THE KING.

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President: Sir E. JULIAN FOLEY, C.B.

## The Jubilee Dinner.

The Jubilee Dinner was held on Tuesday, March 7th, 1939, at the Connaught Rooms.

Both numerically and in its representative character the attendance was in keeping with the occasion, there being 791 members and guests present.

Sir E. Julian Foley, C.B., the President, was in the Chair, supported by many eminent guests including His Excellency Baron E. de Cartier de Marchienne (the Belgian Ambassador), the Rt. Hon. Oliver F. G. Stanley, M.C., M.P. (President, Board of Trade), His Excellency A. R. Hakki Bey (Egyptian Minister-in-Charge), The Rt. Hon. Viscount Stonehaven, P.C., G.C.M.G., D.S.O., LL.D. (President, Institution of Naval Architects), Admiral Sir Roger R. C. Backhouse, G.C.B., G.C.V.O., C.M.G. (First Sea Lord), J. S. Duncan, Esq., C.B.E. (Acting High Commissioner for Australia), Sir Alan G. Anderson, G.B.E., M.P. (Past President), The Rt. Hon. Lord Stamp of Shortlands, G.C.B., G.B.E. (Chairman, L.M. & S. Railway), R. H. Cross, Esq., M.P. (Parliamentary Secretary to the Board of Trade), The Rt. Hon. Lord Hyndley of Meads, Lt.-Col. Lord Dudley Gordon, D.S.O. (President, British Engineers Association), J. W. Dulanty, Esq., C.B., C.B.E. (High Commissioner for Eire), Air Marshal Sir Frederick W. Bowhill, K.C.B., C.M.G., D.S.O. (Officer Commanding Coastal Areas, R.A.F.), Lord Plender of Sundridge, G.B.E., LL.D., Sir J. Fortescue Flannery, Bart., D.L. (Past President), Admiral Sir

Charles J. C. Little, K.C.B. (Second Sea Lord), Col. J. J. Llewellyn, O.B.E., M.C., T.D., M.P. (Civil Lord), Lt.-Gen. Sir Travers Clarke, G.B.E., K.C.B., K.C.M.G., Sir Maurice E. Denny, Bart., C.B.E., S.B. (Past President), Sir Clement D. M. Hindley, Kt., K.C.I.E., M.A. (Senior Vice-President, Institution of Civil Engineers), Lt.-Col. Sir Francis C. Shelmerdine, C.I.E., O.B.E., F.R.Ae.S. (Director-General of Civil Aviation), Eng. Vice-Admiral Sir G. Preece, K.C.B. (Engineer-in-Chief of the Fleet), Sir Stanley V. Goodall, K.C.B., O.B.E. (Director of Naval Construction), E. Bruce Ball, Esq. (President, Institution of Mechanical Engineers), The Rt. Hon. Sir Boyd Merriman, O.B.E., LL.D. (Presiding Judge of the Admiralty Court), Sir Stephen J. Pigott, D.Sc. (Past President), Vice-Admiral C. P. Talbot, C.B., D.S.O. (ret.) (Director of Dockyards), A. J. Grant, Esq., J.P. (Master Cutler of Sheffield), Dr. A. P. M. Fleming, C.B.E., D.Eng., M.Sc. (President, Institution of Electrical Engineers), Harold Fortescue Flannery, Esq., M.B.E., B.A. (President, Society of Consulting Marine Engineers and Ship Surveyors), Eng. Vice-Admiral Sir Robert B. Dixon, K.C.B., D.Eng. (Past President), Sir William C. Currie, Kt., (Chairman, P. & O.S.N. Co., Ltd.), Robertson F. Gibb, Esq. (Chairman, Union Castle Line and President, Chamber of Shipping), Sir Westcott S. Abell, K.B.E. (Past President), R. H. Green, Esq. (Past President), F. G. Dunlop, Esq., O.B.E. (Director, Harland & Wolff, Ltd.), Dr. W. J. Muller (President, Dutch Royal Institute



of Engineers, Mechanical Engineering and Shipbuilding Section), R. Holland-Martin, Esq., C.B. (Chairman, Southern Railway), Colin Smith, Esq., M.V.O., M.B.E. (Registrar of the Privy Council), Alderman Sir George Truscott, Bart., W. T. Williams, Esq., O.B.E., B.Sc., Wh.Ex., Engineer Surveyor-in-Chief, Board of Trade), G. J. Innes, Esq. (Chairman, British Corporation of Shipping and Aircraft), Ernest L. Jacobs, Esq. (Deputy Chairman, Lloyd's Register of Shipping), Dr. C. G. Darwin, M.C., M.A., F.R.S. (Director, National Physical Laboratory), Frank E. Fehr, Esq., C.B.E. (Chairman, Baltic Mercantile and Shipping Exchange, Ltd.), Ewart G. Culpin, Esq., F.R.I.B.A., M.T.P.I., J.P. (Past Chairman, London County Council), A. T. Roach, Esq., LL.B. (Town Clerk, City Corporation), Alderman F. S. Alexander, Deputy Alderman E. H. Hutton (Chief Commoner, City Corporation), Sir John Pakeman, Kt., C.B.E., C.C., F. Whittingham, Esq., J.P., A. M. Stephen, Esq., M.C. (President, Shipbuilding Employers' Federation), Captain Denis de Rivoyre (French Naval Attaché), G. S. Baker, Esq., D.Sc., O.B.E. (Superintendent, William Froude Laboratory), Com. W. K. Harrill (U.S. Naval Attaché), F. H. Rogers, Esq., F.C.I.A. (President, Institution of Chemical Engineers), Rear-Admiral Bruno Brivonesi, R.I.N. (Italian Naval Attaché), J. R. Robertson, Esq. (General Manager, British Tanker Co., Ltd.), Rear-Admiral T. Gerken (Head of Chilean Naval Commission), James Montgomerie, Esq., D.Sc. (Chief Ship Surveyor, Lloyd's Register of Shipping), S. F. Dorey, Esq., D.Sc., Wh.Ex. (Chief Engineer Surveyor), Lt.-Col. B. Kwiechinski (Polish Naval, Military and Air Attaché), Captain Natal Arnaud (Brazilian Acting Naval Attaché), Malcolm K. Scott, Esq. (Secretary, Lloyd's Register of Shipping), A. McKinstry, Esq. (Managing Director, Babcock & Wilcox, Ltd.), F. A. Griffiths, Esq., M.C. (Assistant Secretary in Charge of the Safety Division, Board of Trade), Eng. Rear-Admiral A. G. Crousaz, C.B. (Deputy Engineer-in-Chief of the Fleet), Major-General A. E. Davidson, C.B., D.S.O. (Director of Mechanisation), The Hon. J. K. Weir, C. McDermid, Esq. (Secretary, Institution of Mining Engineers), W. T. C. Smith, Esq. (Clerk, Honourable Company of Master Mariners), G. V. Boys, Esq., M.A. (Secretary, Institution of Naval Architects), J. L. Adam, Esq. (Assistant Chief Surveyor, British Corporation Register of Shipping and Aircraft), J. Paley Yorke, Esq., O.B.E., M.Sc. (Principal, L.C.C. School of Engineering and Navigation, Poplar), W. J. Killingback, Esq., M.B.E. (Registrar General of Shipping and Seamen), R. K. Munro, Esq. (Secretary, Society of Consulting Marine Engineers and Ship Surveyors), D. Bramah, Esq., C.B.E. (General Secretary, Marine Engineers' Association), W. E. Archer, Esq. (Hon. Solicitor to The Institute of Marine Engineers), Dr. W. J. Galt, M.A., M.B., B.Ch. (Honorary Medical Officer, The Institute of

Marine Engineers' Guild of Benevolence), Victor Wilkins, Esq., F.R.I.B.A., J. D. C. Stone, Esq., K. W. Bridges, Esq.

During the evening music was rendered by The Royal Artillery Band (by permission of the Officers, R.A.), conducted by Lieut. O. W. Geary, M.B.E., A.R.C.M., Director of Music, R.A., and the speeches were interspersed with vocal and instrumental items by Miss Stella Andrevia, Mr. Flotsam and Mr. Jetsam, and Mario Lorenzi, accompanied by Mr. Thomas Best at the piano.

Following the Loyal Toasts, the **Rt. Hon. Oliver Stanley, M.P.**, President of the Board of Trade, submitted the toast of "Empire Shipping". Merchant shipping, he said, depended to a large extent upon marine engineers. Whatever might be the temporary expedients to be adopted, whatever Governments might do to help or hinder shipping, the industry must depend upon the efficiency not only of its personnel but of its ships. If we were to retain our old maritime supremacy we could not afford to be outdone in any particular.

Britain had great traditions as a seafaring people. Those traditions were a most valuable asset. But traditions alone could not protect the nation in the world to-day. Our customers would consider that great traditions in the past were no substitute for service in the present.

No one could deny that in the past few years our record in shipping had been good. Full advantage had been taken of the great technical progress in marine engineering, and no effort had been spared to achieve the speed, service, comfort, and the facilities which modern traffic demanded.

In an audience composed of marine engineers, said Mr. Stanley, it was unnecessary to emphasise the importance of shipping to the United Kingdom and, above all, to the Empire. An Empire which had been created by shipping and maintained by shipping would stand or fall by shipping. A great and rich country could perhaps afford to see great industrial changes. It could afford to see industries decline and new industries arise. But we could not, as a great maritime Empire, afford to see the disappearance of the shipping industry. Such a thing, if it were to happen, would not only be dangerous economically, but it would also be strategically disastrous.

"From the point of view of our national economy", Mr. Stanley continued, "in the balance of trade which I have to strike every year of visible and invisible exports I cannot forget that even last year—a bad year for shipping—shipping contributed £100,000,000 of foreign exchange in the service of this country". For the second year running there had been an unfavourable trading balance. They could imagine what would be the nation's economic position to-day if they had lost that £100,000,000 which shipping contributed—double the amount which was contributed by any other exporting industry.



Strategically everything pointed to the necessity for maintaining and expanding the Mercantile Marine. The nation was going to spend gigantic and stupendous sums upon armaments, upon the Navy, the Army, and the Air Force. But what good would they be if we had not got the ships to bring food to our people. Tanks, anti-aircraft guns and aeroplanes all went to make the strength of the country, but without food-carrying ships they would be useless in our defence. If the Mercantile Marine were to be maintained and increased everything pointed to the necessity for providing reasonable trading prospects for British shipping.

"What is the position to-day?" asked Mr. Stanley. In 1934 the position of our merchant shipping was then sufficiently serious for Government action to be taken. Then there was a steady recovery, and in 1937 British shipping had reached a position of very considerable prosperity. The tonnage of shipping laid up was reduced to practically nothing. The freight index in 1937 rose to 150.

Unfortunately that prosperity was only short-lived. Whereas in 1937 we had practically no tonnage laid up, in 1938 there were 600,000 tons idle. In 1937 the freight index was 150, to-day it was only just over 90.

The President of the Board of Trade said he had never shared the pessimism which had been expressed as to the ability of the Mercantile Marine to-day to take its part in a great war, but even if he did not share that pessimism he would, nevertheless, welcome a greater margin of safety. Certainly he could not tolerate a reduction of that margin.

"I have recently received proposals from ship-owners regarding what, in their view, would make for an improvement in shipping and for arresting the diminution in our mercantile fleet", said Mr. Stanley. "Those proposals are now being considered by the Government. At the same time, when considering the problem of shipping, we should also endeavour to deal with the problems of shipbuilding. The immediate problem is the decline of shipbuilding. All these are matters of extreme urgency and of great perplexity. I hope that the Government will soon reach a decision".

It was vital, concluded Mr. Stanley, that whoever came to the dinner of The Institute of Marine Engineers next year to propose the toast of "Empire Shipping" should be able to paint a brighter picture than he had been able to do; but it was in the confident belief that British shipping would be restored to health that he asked them to honour the toast. He coupled with it the name of Sir Alan Anderson, "whose close connection with shipping and the universal respect in which he is held in commercial and political circles makes him the obvious person to be coupled with it". (Applause).

In his reply, **Sir Alan Anderson** said that if he were speaking as an ex-president of The Institute of Marine Engineers, he could claim that the

progress of marine engineering had been beneficent to Empire shipping and that British engineers had been and were the leaders. But if he were to speak as an ex-president of the Chamber of Shipping he would tell a different tale—not of the past, but of the present and future.

While world sea trade had risen since 1913 and Empire trade had risen out of proportion, continued Sir Alan, United Kingdom ships of 2,000 gross registered tonnage and over seagoing had decreased. Ships of British Dominions, not U.K. owned, had increased by some 600,000 gross tons, but the British Empire, which owned 52 per cent. of world tonnage in 1913, owned only 35 per cent. of the total in 1938.

That showed what foreign subsidies had done already to undermine a predominant position established by our seamen, marine engineers and ship-owners in 100 years of competitive trade.

But this was only the fringe of the menace, said Sir Alan. "If we cannot make our ships pay partly because Great Britain is more prosperous than her neighbours (and prosperity soon finds its way into costs), partly because economic loss does not stop foreign subsidised ships or partly because some nations have asserted the monopoly right for their own ships to carry all the trade between them and us (e.g. Russia)—if for all or any of these reasons British ships cannot be made to pay we shall cease to be a shipbuilding and maritime nation, and shall perhaps save money by chartering foreign ships to bring us our food and raw materials".

We should perhaps save money—in peace—but how about war? Sir Alan did not like the prospect of war without an ample merchant fleet under our own flag. "Let us hope", he said, "that the President of the Board of Trade and the Secretary for Overseas Trade will, on their foreign trip, convince their hosts that Great Britain cannot safely continue to buy their excellent timber and butter unless we import these supplies in ships under our flag on which we can rely in war.

"In passing, I suggest timber as a cargo that invites special attention. We were the great carriers of timber. We lost the business and all our timber ships because of our load line, but now we have corrected our mistake about load line. We buy Russian timber; why should we not employ our ships instead of Russian ships to carry our own timber? Incidentally, although we should have to buy secondhand ships at the start, our shipyards would be kept busy replacing them as they wore out".

The loss of passengers by the British Mercantile Marine was, in 1871-75, 406 per annum, and in 1921-35, 12 per annum. Our merchant fleet was, in tonnage, more than twice what it was 60 years ago; 1871, 5.7 millions; 1925, 12 millions, and, by the change from sail to power, voyages took half the time, so in comparing passenger losses our modern fleet might be regarded as effectively four times our fleet of 1871. Applying that correction, the passen-



ger losses for equivalent fleets had fallen in 60 years from 406 per annum to 3 per annum.

It was the marine engineer, said Sir Alan, who had worked most of that miracle and divided in 60 years the risk of sea travel by 100; he had divided the fuel cost in 40 years by three, and he had enabled the shipowner and naval architect to improve comfort out of all knowledge in ways that statistics could not show. (Loud applause).

The toast of "The Institute of Marine Engineers" was proposed by **Admiral Sir Roger R. C. Backhouse, First Sea Lord**, who, in giving some particulars of the work carried out by The Institute, referred to the special attention which was given to the training of young engineers preparing for sea-going careers. Student membership of The Institute was virtually a passport to a junior sea-going appointment with any of the leading shipping companies.

Since the Institute was founded, continued Sir Roger, many naval officers had been connected with it. He was sure that the Admiralty and naval connection with The Institute had been in all respects advantageous. He thought it would be agreed that Admiralty practice in marine engineering had kept well ahead of the times and, therefore, the continued participation of the heads of the engineering branch of the Royal Navy had been of great value to The Institute, and to the marine engineering profession which it represented.

In a reference to recent naval work, the First Sea Lord said that in the last few years improvements in boiler design had enabled them to reduce their Admiralty boiler weights by some 10 to 15 per cent. in the larger ships.

So far as the whole machinery installation was concerned, if the "Nelson" and "Rodney" were being built to-day instead of in 1922, they could be given at least 50 per cent. more horsepower on the same weight and space, while the efficiency of their main machinery could be increased by some 10 per cent.

Looking to the future, it was difficult to say that improvements could be effected in the existing type of machinery without having regard to the use of increasing pressures and temperatures. That introduced a whole set of new problems, not only in the way of finding suitable materials to stand the high temperatures, but also in making effective use of that kind of steam at moderate powers when endurance was of the greatest importance.

Work had also progressed in the development of oil engines suitable for submarines, and it was hoped that some of the difficulties that had been experienced in the past were being gradually overcome. He thought there was still room for improvement, especially with regard to absolute reliability, which was a fundamental requirement for the Navy.

Sir Roger then dealt with the question of personnel. The Admiralty, he said, wanted more

engineer officers, both through public school entry at ages varying from 17 to 18½, and through the universities at ages between 21 and 25. At present the Navy was also short of skilled artificers. It took five years to train them in the Navy, so that they needed a proportion who were already trained from industry. (Applause).

**Sir E. Julian Foley**, President of The Institute, in his reply, expressed appreciation of the great honour they felt in that the toast of "The Institute" had been proposed by Admiral Backhouse. In so doing, the First Sea Lord had well exemplified both the long historical connection between the Royal Navy and the Merchant Navy, and the long connection of The Institute with the Royal Navy. After voicing the Council's gratification at the presence of the other naval guests, Sir Julian asserted that marine engineers were modest but not meek—they knew that their power and influence were so great that so long as they could exercise them they could afford to dispense with limelight.

It was probably true that ours was an engineering age in a wider sense than ever before—we had had our road-making age, our canal age, our railway age, our factory age, and these remained with us still, but it had been left to this age to direct peace by machinery and to make war by machinery. For was not the regimentation of the thoughts of a people by press and wireless anything but the making of opinion by machinery? The essence of the engine was that in certain circumstances it should act in certain definite and calculated ways, and that was the tendency of mass suggestion by the latest products of engineering science of which he saw so much to-day.

The domination of war by machinery was everywhere obvious. If it were not for the engineer we should, all of us, in international affairs, tend to roar, as Bottom put it, as gently as a sucking dove, with great consequent improvement of international temper and good humour. The engineer, of course, had nothing to do with these high matters. He produced machinery, but policy must devise the ends and the application. So he returned to the modesty of the engineer which was the proper attitude of the scientific mind in face of the world around us. When we thanked our host for a good dinner, the sound basis of a pleasant evening, how many of us thought of sending a message of congratulation to the cook—still less to the inventor of the range he used? The engineer was a little like the cook in modern life, perhaps even more like the unseen operator whose fingers produced the comedies and dramas of the marionette stage.

The Institute had had a good year, its membership had increased a little and it had done well in the production and discussion of papers and in other fields of its activity. Its high spots of the year, apart from the fact that it had reached its Jubilee in a financially sound, healthy and progressive condition, were the International Conference of Naval



Architects and Marine Engineers held in London last summer and the International Engineering Congress held at Glasgow (both in June). In both these Conferences The Institute was working closely with the allied Engineering Institutions and Associations, and a striking feature of both was the cordial relations between the representatives of the different nations. He came to the conclusion that there was a great deal of international mindedness in engineers and that, he supposed, would be found in all the scientific professions. When men were dealing with the phenomena of nature they escaped the confines of nationality.

The Institute had given special attention during the year to the professional welfare of its junior members, and had met with a good response.

He would like to say how much they all appreciated the honour done them by the guests who had joined them that evening. For The Institute this was a very important occasion, and the distinguished guests who were with them that night aptly demonstrated the success of The Institute. They were all honoured to have with them His Excellency the Belgian Ambassador and His Excellency the Egyptian Chargé d'Affaires. They had also with them distinguished representatives of other foreign Powers. Might he say how glad they were to see there the President of the Board of Trade. It was a long time since they had the President of the Board of Trade at their Annual Banquet, and it was fitting and very gracious of Mr. Stanley to make time to come to their Jubilee Dinner. They were delighted to welcome representatives of the Associations with which they were allied—the Naval Architects, the Civil Engineers, the Mechanical Engineers, and others. They were encouraged by the presence of the President of the Chamber of Shipping and other ship-owners; he must not delay them by going through the list in detail, but he would like them to know how much the Council and Members appreciated the honour and the encouragement of their presence. That encouragement would be felt in the progress of The Institute to its centenary.

The object of The Institute was "Service"—service to engineers to help them to proficiency in their science, to bring them into contact with other sciences and arts, to give a meeting place for discussion, to prevent their taking too professional a view of their job. But The Institute also aimed at service to the world at large. It existed to facilitate communications, to adapt to the welfare of men the materials and forces of nature, and to increase the benefits of mankind conferred by all those arts which depend on the application of ordered and tested knowledge. It was in that spirit that The Institute went forward to its next 50 years. He would not prophesy what it might be at the end of that time, but it could only be the success it should be with the help and inspiration of all those interests, professions and forces represented at that present gathering.

He thanked Admiral Backhouse for his toast and the company for the way in which they had received it. (Loud applause).

The health of "The President" was proposed by the **Rt. Hon. Lord Hyndley** in a delightful eulogy, which was received with loud and prolonged applause, and an enthusiastic rendering of "For he's a jolly good fellow". The President's acknowledgments concluded the proceedings, and at his invitation many members and guests adjourned to the Balmoral Room till 11.30 for informal reunions.

During the earlier reception the President read the following cablegram which had just been received from the President and Secretary-Treasurer of the Society of Naval Architects and Marine Engineers, New York:—

"On behalf Society Naval Architects Marine Engineers we extend to Institute Marine Engineers heartiest congratulations and best wishes on occasion Jubilee Dinner.

SMITH and KING".

to which a reply was sent reading as follows:—

"Warmest thanks your kind message of Jubilee greetings. Your good wishes cordially reciprocated.

FOLEY and RAINIE".



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