# INSTITUTE OF MARINE ENGINEERS

INCORPORATED.

SESSION



1900-1901.

President—Col. John M. Denny, M.P.

## BRISTOL CHANNEL CENTRE.

THE tenth annual dinner of the Bristol Channel Centre was held in the Park Hall, Cardiff, on Saturday evening, October 27. The President of the Centre (Sir John Gunn) occupied the chair. The President of the Centre was supported by the following guests: Mayor of Cardiff (S. A. Brain, Esq., J.P.), Mayor of Newport (George Greenland, Esq.), Canon C. J. Thompson, D.D., Sir Thomas Morel, Kt., Captain W. M. Maturin, R.N., Lieut.-Colonel Hopkins, R.A., John Duncan, Esq., J.P., Arch. Hood, Esq., J.P., Dr. Thomas Wallace, J.P., Dr. Lynn Thomas, J. W. Curtis, Esq. (Deputy-Mayor), Lewellen Wood, Esq., J.P., T. H. Riches, Esq., J.P., Major C. B. Fowler, V.D., Dr. Tatham Thompson, James Adamson, Esq. (Hon. Sec., London), Captain J. Traill (Board of Trade), Dr. J. Ll. Treharne, J. T. Leaning, Esq., A. K. Hamilton, Esq., W. Hawkins, Esq., Captain T. H. Sloggett, Captain T. Rosser, Mr. W. H. D. Caple, Mr. J. T. Duncan, Mr. M. W. Aisbitt and Mr. T. W.

Wailes (Vice-Presidents), Mr. George Sloggett (Hon. Sec.), and Mr. A. E. Smithson (Hon. Treas.).

# TOAST, "THE QUEEN."

In proposing the toast of "The Queen," the President pointed out that Her Majesty took a wonderful interest in her subjects, not merely in Great Britain, but all over the world. If one might use the expression, she had cemented the affection of her people in every part of the British Empire.

#### (GOD SAVE THE QUEEN.)

# TOAST, "THE ROYAL FAMILY."

The toast of "The Prince and Princess of Wales and the other members of the Royal Family" followed, in proposing which the President said that it was a matter of common knowledge that on all occasions the Prince of Wales had done his duty nobly and well. It was no small matter to know that the succession to the British Throne was more securely and firmly held to-day than it had ever been before. As to the Princess of Wales, they were all deeply pleased and gratified to see the interest she took in the Welsh Industries Exhibition the other day. It had been his privilege to see Her Royal Highness examining the work done by the Welsh peasants and the Welsh workpeople, and admiring alike the excellence of the work and the manner in which it had been done. Her Royal Highness in no small manner contributed to the excellent support of the exhibition at Lord Aberdare's house in London. As to the other members of the Royal Family, they seemed to be following in the noble footsteps of our beloved Queen.

# TOAST, "THE IMPERIAL FORCES."

Sir Thomas Morel said that the toast which he had to propose for their acceptance was that of "The Imperial Forces." He wished to claim for the

merchant navy in which they were all interested that it belonged to the auxiliary forces by reason of the very excellent way in which they had been able to carry our very large army to South Africa. It was the world how this large army was transported in such a short time by our mercantile navy, but he wished to claim that it never would have been able to do the work if the marine engineers had not been able to give their support and their valuable help to the shipowners who did the work. From Cardiff they had not been able to transport any troops, but they had transported the heavy material, and they had also been able to supply the fleet with their smokeless steam coal. It was certain that no navy could prosper and do its work without this coal. He had to couple with this toast the name of Captain Maturin, R.N., who was the link between Cardiff and the Admiralty. Quite lately they had the pleasure of a visit from the Lords of the Admiralty. They received them at the Chamber of Commerce, and the next day they were able to receive the Chamber at their own offices, Captain Maturin's office at the Docks proving with what interest the Admiralty viewed the position that Cardiff held. He had also to couple with the toast the name of Colonel Hopkins, R.A., for the Army, and Major C. B. Fowler for the Reserve Forces.

Capt. Maturin, R.N., said he entirely endorsed what Sir Thomas Morel had said about the mercantile marine being considered part of the auxiliary forces of the country. As to the navy he thought most people would agree that it was in an efficient state and getting more so every day. Enormous additions were being made to foreign navies, and it was quite necessary the British navy should be kept up to the mark. Thanks to the marine engineers of this country he was glad to say that our ships and machinery were second to none, and he thought he might say the same of the engineers of the navy who had the control of this machinery

and on whom the efficiency of a man-of-war so much depended. As regards the marine engineers he could only endorse what Sir Thomas Morel had said that the fact of an enormous army being transported to South Africa without a single mishap, so far as the engineering department was concerned, was a proof of what worth they were. As to the war itself it had been a purely military one, but on those occasions when the assistance of the navy was required they were proud of having been able to do that which they were called upon.

Lieut.-Col. Hopkins said that in former days when he had been called upon to respond for the army it was held to consist of just what they saw in the streets—the red-coated men about our large cities and in our parks. It was true they knew there were some in India and in our colonies. But this army now extended all over the Empire. It was an Imperial army; it was no longer a little self-contained army. During the year it had suddenly dawned on them that we had a far greater force than they had ever thought of before. We had a force which extended over the whole world. Though they were all Imperialists now - Sir Edward Reed was an Imperialist—he did not think that many of them were a year ago. He did not think they all appreciated what were the possibilities of the Empire. They knew that in the colonies there were organised troops, but they did not know whether they would be available. One year had shown them that they were, and therefore he said they were all Imperialists. Though few foresaw the position at which we had now arrived, there were some who saw it long ago. He would take one instance. M. Thiers foresaw it. In a letter which M. Thiers wrote to the French Minister of War he said: "When you calculate the strength of England don't look only to her army; you must look beyond that; you must look to her colonies, for if ever England is in a position of stress or difficulty she will, believe me, look to her colonies

for assistance and she will not look in vain." He had proved a true prophet, because within the last twelve months there was a time of danger it was not very critical perhaps—but in the beginning of this year there was a cloudy time, when possibly even the Empire was in danger, and then it was our colonies came to our assistance and they showed how they could help us. So when they spoke now of the army they must always remember that there was that army which M. Thiers foresaw—not within these shores, not in India, not in the Crown colonies. but in our self-governing colonies. He (Col. Hopkins) believed that the idea of an Imperial army would grow, and that there would come a time when every self-governing colony would voluntarily raise a standing force which would be available for the common defence.

Major Fowler, for the Reserve Forces, said that at one time the volunteers were jeered at in the streets; they were called England's last hope and all sorts of things, but now they had lived to see the volunteers fighting shoulder to shoulder with our regular army. The duty of the volunteers and militia was to defend the shores of Great Britain and Ireland. Were they ready for an invasion? He said they were not. There were 240,000 men ready and willing to gain instruction, but they had not had proper instruction given to them. He hoped the time would soon arrive when they would take a lesson from the present war and give that instruction which the auxiliary forces craved for, and so make them ready to defend our shores. As to the militia it was often said that half of it was on paper, but this war had proved the contrary. The militia had turned up manfully, and had enrolled and were off in a few weeks. In order that the auxiliary forces might be able to defend our shores, they ought to have instructions in entrenching and proper shooting. Let the volunteers be given ranges. Now was the time to take the bull by the horns and act, and he hoped that the proper authorities in London would act and give that instruction of which the Reserve Forces stood in need.

TOAST, "THE INSTITUTE OF MARINE ENGINEERS."

The Mayor of Cardiff, who was received with musical honours, gave "The Institute of Marine Engineers." He said that for some years past, and during the late war especially, they had heard a great deal of the power which marine engineers were to the State. If it had not been for them we should not have been able to send our troops with the rapidity which we did from Portsmouth, Southampton and elsewhere to South Africa. The English-speaking race to-day was the greatest upon the face of the earth, with the exception perhaps of the Chinese. But he felt very proud a few days ago, when spending a little time in Westminster Abbey, to see some Japanese there who he was told had come over to this country to take away a war-vessel that had been built for them. That was an indication that no country could build a man-of-war, equip it and turn it out as Great Britain could. When in the Mediterranean last February, on board one of the North German Lloyd boats, a German said, "You are a great nation, but we beat you on the sea." He replied, "You mean for speed?" The German gave the affirmative. To that he made answer, "That puts you in a position to run away from us." Whilst he hoped the two great Anglo-Saxon races, the Germans and the Britons, would never go to war, he trusted the Germans would not take advantage of their speed, but would, in the words of dear old Nelson, "stand and have it out." It rested, however, with the marine engineers to make Britain not only the first nation of sea-dogs but also the fastest. They wanted fast cruisers and fast-sailing vessels, and the marine engineers would have to provide them. and his colleagues could meanwhile stay at home and keep down the taxes. Long might the marine engineers flourish, for unless they did, what would become of Cardiff which lived upon its docks, and the docks lived upon shipping.

At this point Dr. LYNN THOMAS—just returned from South Africa—entered the hall, accompanied by Mr. Sloggett (honorary secretary of the Centre), and was received with loud cheering and the singing of "He's a jolly good fellow."

Sir John Gunn said he was very glad to have this important introduction in their programme. They cordially welcomed back their friend Dr. Lynn Thomas. They all felt proud of him and his colleagues, who at the risk of their lives had left their homes and their families in the interests of their Queen and country. Before responding to the toast of the Institute he would ask them to drink the health of Dr. Lynn Thomas.

Dr. Lynn Thomas, in response, said that since he had left Cardiff he had been under a certain amount of trouble and embarrassment. On the way out he met with an accident which crippled him for eight weeks. They went up to Springfontein, and when they got there they lost three of the staff in six days. That was a fearful experience which put him in charge of the Welsh hospital. All that was very embarrassing, but he felt much more embarrassed at that moment than during the whole of his experience. The best part of going to South Africa was to get home again and see the faces of old friends. The first thing his little boy said to him was, "I am glad to see you, father; have you got Mr. Kruger with you?" Mr. Duncan had reminded him that he ought to say that Professor Hughes was getting on as well as one could possibly expect.

The President then responded to the toast of "The Institute of Marine Engineers." He said he felt somewhat diffident at replying, because he was

conscious that there were on the programme several speakers whom he hoped they would do him the pleasure of sitting and listening to, and he would promise not to keep them many minutes. thanked those present, irrespective of their own members, for the hearty and cordial manner in which they had received this toast. They realised that in this age of progress engineering was possibly one of the most important elements that had contributed so largely to the development of this nation of commerce during the present century. To the advancement of science and culture in various departments, engineering had in no small measure contributed, and its varied branches had got to a certain point of discovery and development and advancement beyond what had been in the past, but not what they hoped to attain to by excelling all that had hitherto been done, and showing that English engineers could now as of old lead. As to what the Mayor had said in regard to attaining speed, given the power, and if the country was prepared to pay the bounty, he guaranteed that English engineers could build engines that would compete with the Germans or anybody else. But he hoped it would be the pride of British engineers, as it had been in the past, never to be tempted to accept or to receive what to his mind was an humiliating position—to be bounty fed or bounty kept. them maintain the proud prestige which had carried them to their present position and show by their excellence in design, in merit and in action that they could compete with the Germans, French, Americans, or anybody else. He was perhaps digressing a little from the exact phraseology of his text. He was responding for the Institute of Marine Engineers. They had the honour and pleasure of having with them that night his friend Mr. James Adamson, who was the honorary secretary of the parent institute. To speak correctly this was a centre of the Institute. He hoped that it was a centre of light, improvement and progress. In any case he

thought he could claim that as applied to the Cardiff district they had shown that it was important that those who were fellow-workers, whether it be in mind, in brain or otherwise, should combine not merely for mutual protection, but for what to his mind was an infinitely higher object—mutual advancement and progress. This centre had already shown that it could maintain its position by having given papers which had been approved by the parent society, and as a result of papers which had been contributed by two members of the local centre they had been awarded what was considered a prize in connection with this society—two medals for distinctive literary and scientific work in connection with this centre in Cardiff. Any of the gentlemen present who were engineers, merchants, shipowners, designers, naval architects, or in any analogous position, might become associated with the Institute. could attend the meetings, listen to the papers which had been prepared at an immense amount of trouble, and they might criticise, and the combined wealth of intellect might produce something of which their friends, the parent society of London, might be proud. As some of them knew, they had in the past had distinguished Presidents, such as Lord Kelvin, the late Peter Denny, and many others whom he need not enumerate. Although this society was a comparatively young one, he was delighted to find present that night members of other societies—the Mining Engineers and the Civil Engineers. He rejoiced to know that they were working together for a common purpose—for the progress and advancement of what was best, of what was attainable and within the reach of all. Before he sat down he wished to announce that he had received telegrams of apology for non-attendance. Mr. T. A. Reed and Mr. Shotton sent their best wishes for a pleasant meeting, and the distinguished member for Cardiff, Sir Edward Reed, wired: "Much regret not being with you this evening; allow me to share in the festivities in spite of personal absence."

#### TOAST, "SHIPPING AND COMMERCE."

The Rev. Canon Thompson, in giving "Shipping and Commerce," said that these were essential elements to the national greatness. They all had their own interpretation, and it was of the most practical and he trusted profitable kind which they put upon such a sentiment as that which he had to speak Surely as essential elements to the progress of the race, shipping and commerce were amongst the most potent factors of the progress of the race. It had always been so in every age of the world's history. Although they had had periods of military conquest, although peoples had become great and left their indelible impress upon the character and history of their race, yet no nation had ever become effectively great, had ever left a legacy to mankind which left mankind the better for its bequeathing, unless that greatness had been built upon the solid foundations of international commerce and international exchange. Therefore in the toast of and Commerce" they had a most "Shipping magnificent subject and a glorious theme. Around that festive board he saw shipping and commerce through their representatives in the flesh. seemed to be a very happy, a very healthy, and he trusted on the whole a very contented body of They need not speak of shipping and commerce or any trade concerns in any mean and sordid manner. With great diffidence, because they could not forecast the future, it seemed to him as if this modern race had really come to stay—not like the glories of ancient Rome, of Persia, and other nations to have their day and then die away and leave no memories other than perishable ones behind. If so it would be because they would recognise in the work God had given us to do that trade and commerce meant a feeling of interdependence upon race and race, which would bind people to people—that we were dependent upon other nations of the earth and they were dependent upon us. So would be

inaugurated that glorious reality of brotherhood which was not a dream, and which would by and bye be the true Imperialism of the future race. If so it would be because they had been conspicuous not only on the martial field of glory but conspicuous on the more sacred and important fields of commerce.

Mr. ARCHIBALD HOOD, in returning thanks, remarked that so much had been said that night in favour of shipping and commerce and marine engineers that there was very little left for him to say. There was no man who could admire the marine engineers more than he did. What had they done? They had made the commerce of the world possible. They had within the last twenty or thirty years made vast improvement in shipping, and what was shipping now but steamers, and what were steamers without the effective engineering bestowed upon them by marine engineers. What had they done? They had developed high pressure, steam expansion, and another important thing, surface condensing, besides other things too numerous to mention. But had they done more in promoting steam navigation than a man of the last century by the name of James Watt. He said that in the presence of marine engineers. He was the pioneer of steam navigation. Without his great invention they would not have been where they were to-day. He did not say some other person might not have done what Watt did, but it might have been years and years before it was done. It was said that the man who made two blades of grass to grow where one grew before was a benefactor to his country. Well, marine engineers had made one pound of coal to produce more than two pounds of coal did before. What was commerce? He was told that it was the interchange of commodities. What would steamships be without docks? A great deal had been done in regard to docks in this district, but all that had recently been done as to docks in this district was nothing compared with what Lord Bute did in making the West dock. Those who followed him had plenty of means to do what was done, and he did not think they were entitled to so much credit as Lord Bute was in making the West dock. They got steamers into the dock, but of what would be the use of them unless they had some merchandise either to bring in or to take out. Consequently they wanted collieries and ironworks and so forth to provide means of existence for the shipping. Let it not be thought that marine engineers had finished their work. There was a wide field before them yet for making further improvements. was a very clumsy way of producing the motive power of steamers by such a cumbersome commodity as coal. He did not doubt but that engineers might still further economise the use of coal or discover some means of doing chiefly without coal altogether. That might astonish some of them, but they heard in the present day of liquid air, they heard of solid coal gas, and they knew what power there was in electricity. A few years ago they could not make use of electricity as they did now. Now it was in every workshop and used for the transmission of power in a way that their forefathers never thought of. Another important thing in connection with steam promotion was wireless telegraphy. It would not be more wonderful to have steamers going with much less weight to produce speed than now. It had been the dream of chemists to find some method of decomposing water and then they had the elements of the sea to produce their power. Whether that would ever come he did not know. But let them not think their knowledge was perfect. There was room enough for further improvements. They had a wide field, an illimitable field of science before them, and if they studied this they would cull some of the sweets that would contribute much to their enjoyment.

TOAST, "THE BRISTOL CHANNEL PORTS."

Mr. Lewellyn Wood, J.P., in proposing "The Bristol Channel Ports," said that he was not willing

that any other port in the Channel should be prosperous at the expense of Cardiff, but subject to that qualification, he believed that every Cardiff man wished success to them all.

The Mayor of Newport, in reply, said he believed the authorities of the various ports along the seaboard would do their part in assisting the marine engineers to forward the work of improvement.

Mr. John Duncan, J.P., also returned thanks, and referred to the fact that it was one of the glories of the South Wales ports, and particularly of the Bristol Channel ports, that every man who occupied a prominent position was self-made. In view of there being amongst the Americans and Germans a race of commercial men coming to the front, such as they had not experienced in past years, the marine engineers had set a fine example in equipping men for the increased competition from other nations in the future. If other branches of commerce followed on their lines they need have no fear as to their successors being able to place the Bristol Channel ports in the foremost rank.

### TOAST, "KINDRED SOCIETIES."

Mr. James Adamson (the Hon. Secretary of the Institute), in proposing the toast of "Kindred Institutions," said: "Peace hath her victories no less renowned than war," and the toast which fell to him to propose for the acceptance of the company was more allied to the former than the latter. the past eighteen months the nation had been compassed by curtains of fire and smoke. The clouds were rolling away, however, and soon the man of science would enter in and take possession of the newly-acquired territory and prepare the way for the prosperity and progress of the people that would occupy it in the peaceful pursuits of commerce. Years ago every trade had its own secrets kept closely, but with the advance of time new forms of industry came into being, with different views of

duty and broader principles of life; societies were formed, and their number had been gradually increased year by year. When they thought of the different societies throughout the country, the men who had taken and were taking prominent parts in connection with them were at once suggested, and these were the men who had advanced the progress of the world towards knowledge and light. These stood on the heights of patriotism and in the direction indicated by Canon Thompson in his speech. Each and all reminded them of our leading men of science, who, more richly endowed with nature's gifts than their fellows, gave the results of their labour forth to their fellows for the good of all. was highly gratified to see such an assembly, and the progress of the centre was a cause for congratulation to the whole Institute, of which it was indeed an integral part, and he could not but trespass beyond the limits of the toast in indicating this and to express regret that there had not been a larger representation from London to witness their successful gathering. He wished, however, to assure the office-bearers and committee of the centre that a very warm interest was taken in their progress and success. He was pleased to see they were welcoming one of their townsmen who had taken part in the South African campaign. With this brief digression he now begged to ask them to accept the toast, "Kindred Societies," coupled with the name of one who was known, not only in Cardiff, but beyond the confines thereof. He had pleasure in coupling the toast with Mr. Riches.

Mr. T. Hurry Riches, J.P., in reply, said that on behalf of the old institutions to which he had the honour to belong he extended their cordial sympathy and congratulation on the success of the Institute. The Marine Engineers was not the oldest institution in the country, but it was one that had shown immense vitality, and was one which was second to none in the advancement of science. They knew of the progress and development that had been

brought into existence by the marine engineers. But for them our food supply would not be in the state it was to-day. Instead of having cheap food and all luxuries which every inhabitant was enabled to acquire at a moderate price a large number of comforts would be beyond the attainment of the mass of the population. Every marine engineer could take the flattering unction to his soul of having done something to improve the world and making it better to live in.

### TOAST, "THE PRESIDENT."

Mr. M. W. AISBITT (Vice-President B.C.C.), in submitting the health of the chairman, said they knew what Sir John Gunn had done for them. He had been the mainspring of the society in Cardiff. The toast was drunk with musical honours.

Sir John Gunn, in reply, said that whatever success the centre had attained was very largely due to Mr. Aisbitt and his friend Mr. Sloggett, who was a splendid worker, and to Mr. Wailes and some half-dozen others thanks were also certainly due. The whole committee were thoroughly loyal and worked splendidly together.

The health of Mr. George Sloggett was then cordially drunk, and that gentleman, in response, said that they had a very hard-working committee. Whilst they might be taunted with combining business with pleasure they found it answered very well indeed. Mr. Sloggett also referred to the services of the honorary treasurer, Mr. Smithson, who had done a great deal to forward the work of the centre.

### "God Save the Queen."

During the course of the evening the organ was played with great acceptance by Mr. Norman Kendrick. Madame Nellie Asher and Mr. A. H. Parkins sang with applause, and by their performances Messrs. Arthur Angle (on the violin) and J. Knott (on the trombone) also added greatly to the pleasure of the assembly.

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