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TONNAGE ADMEASUREMENT.

REPORT OF THE ROYAL COMMISSION ON TONNAGE.

FOR very many years the question as to the fairest mode of calculating the tonnage or carrying power of ships has been a vexed and important one. It would, of itself, be one of much less importance were it not that dock-dues, harbour-dues, and similar charges on ships are all based on their tonnage. Hence the mode of calculating the same is all important to the shipowner, and, indeed, almost equally so in a national point of view, by making it the interest of the shipowner to give his vessel such a form as would entail a minimum expense in the shape of dock-dues and other charges, rather than with a view to her swiftness or good sea-going qualities.

Prior to the passing of the Mercantile Marine Act of 1854 this was especially the case; and we cannot, perhaps, more clearly point out the evils of the pre-existing system than in the words of the following extract from an article on the above quoted Act in the January number of this Journal in 1855.

"Part II., sections 20 to 26, establishes an improved measurement for tonnage. Perhaps there has been no more fruitful cause of shipwreck and consequent loss of life than the imperfect systems which have hitherto prevailed for calculating and defining the tonnage or burthen of merchant vessels. The manner in which this effect has been produced will probably be known to most of our readers,

but doubtless not to all; we will therefore shortly explain it.

"In itself the mode of calculating tonnage would not have affected the question of shipwreck, but in consequence of all rates, dues, tolls, and taxes on shipping being proportioned to the registered tonnage and not to the actual burthen of ships, it has been the interest of the shipowner to build his craft of such a form as should give her the smallest registered tonnage with the largest actual burthen; and the anomaly has become common of ships whose actual burthen or capacity for cargo has far exceeded, and even almost doubled, that at which they were registered. But the form of hull required to ensure this end has been the worst conceivable for speed of sailing, and the consequence has been that, with the exception of a few vessels, such, for instance, as those in the fruit trade, our merchant ships have become notorious as worse sailers than those of any other nation; and no encouragement has been given, until the last few years, to the naval architect to improve his models and introduce a superior class of vessels.

"Now it will be evident, even to a landsman, that a vessel's safety may often depend on her sailing powers; that where one ship will work off a lee shore another will drift helplessly on to it; and that where one will fetch the port of safety in

a gale, another will drift to leeward of it. Such, indeed, has been the effect, to an enormous extent, of the premium that has hitherto virtually existed on bad sailing ships. It is therefore obvious that any change in the mode of calculating the tonnage which should remove the inducement to build ill-sailing vessels must be indirectly preventive of loss of life from shipwreck."

In 1869 a Merchant Shipping Bill was prepared of a very complete character, which consolidated and repealed no less than thirty-four previous Acts. It has not yet, however, advanced beyond the stage of a Bill, the time of Parliament having been so fully occupied that, notwithstanding its importance, it has up to the present day been unable to take it into consideration.

Its 14th clause, under the heading of "Measurement of Tonnage," states that—

"The gross tonnage of every ship shall be deemed to be the cubical contents of the hull of the ship, and of every covered-in space on the upper deck; and in cases where cargo is carried on deck, of a certain space thereon not covered in. And the contents of such spaces shall be determined in the manner specified in the regulations contained in the second schedule to this Act.

"The net or register tonnage of sailing ships shall be deemed to be the gross tonnage as above described, less the space occupied by seamen and apprentices, and appropriated to their use. The register tonnage of ships propelled by steam or other power requiring engine-room shall be deemed to be the gross tonnage as above described, less the space occupied by seamen and apprentices, and appropriated to their use, and also less the space occupied by the engine room and adjoining coal bunkers. And the contents of the said crew-spaces and engine-spaces, and the deductions on account thereof, shall be determined in the manner specified in the tonnage regulations of this Act."

The measurements for tonnage in this Bill being much more in detail, and of more scientific character than hitherto enacted, are proportionally more accurate, and therefore more fair as a basis on which to found dock, harbour, and fiscal dues, but they have not yet become law, and they are too complicated and numerous for insertion in this article.

Again in 1873 a Royal Commission on unseaworthy ships was nominated, at the instance of Mr. Plimsoll; it was presided over by the DUKE OF SOMERSET, and the DUKE OF EDINBURGH, Mr. ROTHERY, Mr. BRASSEY, M.P., and Mr. MILNER GIBSON were amongst the members. The Commissioners commence by stating that, owing to the extent and number of the subjects included in their inquiry, their report must be considered a preliminary one only, but that it would show the difficulties by which the inquiry was surrounded, and might prepare the way for the legislation that might be necessary.

On the subject of "Measurement for Tonnage" they remark—

"The present law, under which a ship is taxed according to her registered tonnage, is in some respects unfavourable to the seaworthiness of ships.

"All closed-in spaces are measured for tonnage, with certain exemptions for engine-room and space for the crew.

"This law is a direct inducement to carry cargo on the open deck, and it leads to other difficulties and inequalities not unattended with danger to life. An awning deck, it is said, affords protection to the seamen, and adds in some cases to the safety of the ship; but if this space is liable to be taxed for tonnage, the owner cannot fairly be required to give it as accommodation to his sailors, without obtaining some extra freight by putting cargo in it.

"On the other hand, it is stated that these awning decks are contrivances to evade payment of dues, and ought not therefore to be exempted from tonnage.

"A revision of tonnage regulations, an abolition of all exemptions, and a readjustment of dock dues throughout the country, would, it is said, remove many sources of dispute, and facilitate the establishment of an uniform system of tonnage among maritime nations.

"Tonnage measurement is, however, connected with so many complex questions, and touches so many local interests, that no change, however favourable to

the commerce of the country, and to the greater safety of navigation, could be made, until the subject has been more fully discussed and investigated."

In 1873 a "Merchant Shipping Acts Amendment Act" was passed as an intermediate measure to meet some pressing requirements of the Mercantile Marine until the comprehensive Bill of 1869-70 could be again brought forward. It did not, however, make any enactments as regards measurement for tonnage.

In 1874 the Royal Commission on unseaworthy ships made their final Report.

In 1876 another Merchant Shipping Act was passed, and it was enacted that it should be construed as one with the Merchant Shipping Act, 1854, and the Acts amending the same, and that the whole might be collectively cited as "The Merchant Shipping Acts, 1854 to 1876."

We commented on this Act in the number of this Journal for November 1876 (No. 102). Its enactments, however, ranged under twelve heads, had chiefly reference to the safety of ships, and did not include any re-adjustment of "tonnage measurement."

But we now come to the important inquiry by a Royal Commission into the present operation of the law for the measurement of tonnage, which is the subject of this paper, and on the result of which inquiry the next legislation on the subject may be guided.

The Commissioners appointed to conduct the inquiry were the following:—

1. C. M. NORWOOD, Esq., M.P., Hull, Shipowner, Chairman.

2. SIR JOHN STOKES, K.C.B.

3. SIR E. J. REED, K.C.B., M.P., formerly Chief Constructor of H.M. Navy.

4. THOS. GRAY, Esq., one of the Assistant Secretaries of the Board of Trade.

5. JAS. P. CORRY, Esq., M.P., Shipowner.

6. ROBT. CAPPER, Esq., of Swansea, especially representing dock interests.

7. THOS. D. HORNBY, Esq., Chairman of the Mersey Docks and Harbour Board.

8. WM. PEARCE, Esq., Shipbuilder and Engineer of the Clyde, of the firm of John Elder and Co.

9. T. B. ROYDEN, Esq., Shipowner and Shipbuilder, Liverpool.

10. H. C. ROTHERY, Esq., Wreck Commissioner.

11. JNO. GLOVER, Esq., Shipowner and Ship-broker, London.

12. BERNARD WAYMOUTH, Esq., Secretary of the Committee of Lloyd's Register of British and Foreign Shipping.

Of the above twelve gentlemen, the first nine were unanimous in their assent to the recommendations contained in the Report of the Commission, the last three being dissentients, and giving their reasons for dissent.

The terms of Her Most Gracious Majesty's reference to the Royal Commissioners are these:—

Whereas, We have deemed it expedient that a Commission should forthwith issue to inquire into the present operation of the Laws for the Measurement of Tonnage, and to report to Us—

Whether the principle of the present law is fully and properly carried into effect; and

Whether the terms of the present rules are suitable to the present state of shipbuilding; and to report

Whether the law is fair in its operation as between those who pay and those who receive dues on shipping; and as

Between the different classes of those who pay such dues; and to report

Whether, having regard to the great changes which have taken place in the character of merchant ships, there are any defects in the form, the build, or the user of such ships which can be traced to the present Law of Tonnage, or which any amendment of that law would remedy; and to report

Whether, having regard to just principles of taxation, to the convenience and furtherance of trade, to international arrangements, and, above all, to safety, it is desirable to make any, and what, alteration in such law.

A perusal of the above list of subjects for inquiry, consideration, and report, will suffice to show that the space at disposal in this Journal will not admit of more than a summary of the course of the inquiry, and the conclusions arrived at by the Commissioners, with such few comments as may occur to us on the same.

The first nine members of the Commission above enumerated adhered to the principle of the present system of roomage or space measurement, excluding in the net or register tonnage all spaces unavailable for cargo, or in other words, that are not freight-earning.

Of the remaining three members, Mr. GLOVER, whilst declining to sign the Report, in reality scarcely differs from the majority of the other members except in minor details; but Mr. WAYMOUTH and Mr. ROTHERY differ from them *in toto*, and from each other. Both propose what is termed a Dead Weight or Displacement Tonnage system, Mr. WAYMOUTH that the actual weight of a ship without cargo, in tons of 20 cwt. each, ascertained by her exact displacement of water to her light water line, being taken as a starting point, and her cargo weight, shown by her additional displacement between her light and load lines, representing her taxable liability. Mr. ROTHERY, on the other hand, advocating the total displacement of ship and cargo to her maximum load line as liable.

These are not new proposals; the question of calculating tonnage by weight ascertained by displacement instead of by cubical stowage space was long ago propounded, and it is evident that neither system, looking to the diversified forms of ships, space devoted to propelling purposes, and the great variety of cargoes, heavy or light, bulky or compact, and of varying costliness, can ever form a basis for harbour and dock, canal and similar charges, that shall fall equally on all interests. The question still remains whether or not tonnage in any shape is a suitable basis on which to levy dues or taxes of any description. Whether the ship and cargo would not more fairly be separately taxed, the latter in proportion to its money value on shipment or discharge, on the dock or harbour quay or wharf, and the former on the length of quay space occupied by the ship, or by her value, or by both combined.

It appears to us that some such system

would be much more plastic and free from the rigidity, unequal pressure, and consequent frequent unfairness of any tonnage measurement, which latter might well be left to express the simple size and carrying capacity of a ship.

(To be continued.)

The following is an epitome of the Report embodying the principal subjects of the inquiry, and the opinions of the Commissioners on the same:—

1. *Uses to which tonnage is applied.*—The tonnage inscribed on the certificate of registry of a British ship constitutes the measure of her contribution to light dues, and to harbour and dock charges in British and many foreign ports. It is the measure of the amount to which a shipowner may become liable for any damage caused by his ship. It also has most important mercantile issues in connection with the purchase, sale, hire, and chartering of ships.

4. *Present basis for tonnage measurement.* 17 & 18 Vict., c. 104.—The statute under which tonnage is admeasured is an Act passed in Your Majesty's reign, known as "The Merchant Shipping Act of 1854," and the basis for tonnage adopted therein is a roomage or space ton of 100 cubic feet; and the tonnage is the roomage of the internal cubical capacity of the ship below her uppermost deck, and of permanent closed-in spaces on her uppermost deck, available for cargo, stores, passengers, or crew, ascertained by the formula known as "Sterling's Rule." The aggregate cubic space in the ship thus ascertained (designated in units of 100 cubic feet) constitutes her gross tonnage. This system was adopted in 1854.

5. *Net or register tonnage ascertained by deductions from gross tonnage.* 30 & 31 Vict. c. 124, s. 9. *Deductions for crew space allowed to all descriptions of vessels.*—The net or register tonnage, upon which (with slight exceptions) all tonnage dues and charges upon ships are levied, is ascertained in the case of sailing vessels by deducting from the gross tonnage the tonnage of spaces exclusively appropriated to the accommodation and use of the crew. The provisions in the Act of 1854 in respect of crew-spaces have been modified and extended by the Merchant Shipping Amendment Act, 1867.

6. *Allowances to steamers for propelling power.*—In addition to the deduction for crew space (allowed to all descriptions of vessels), the gross tonnage of steamers is further reduced by an allowance for spaces occupied by and necessary for propelling power.

The deductions for propelling power which the

owner of a steam vessel is entitled to claim are specified under section 23 of the Act of 1854.

9. *Difficulty of applying present rules to modern shipbuilding. Water-ballast, double bottom systems.*—As an instance of the difficulty of applying the present rules to the progress of modern shipbuilding, our attention has been called to the novel principle of construction of water-ballast double bottoms.

10. *Development of steam power.*—It is proper when adverting to the great changes since 1854 in the dimensions and forms of ships, and of the material used in their construction, that we should also notice the rapid development in the application of steam power to merchant vessels consequent on the general adoption of the screw propeller, and the great economy in the consumption of fuel and in the space necessary for carrying it, effected by the use of steam at greatly increased pressure, and of the high and low pressure cylinders in what are called "compound engines."

Increase of steam vessels between 1854 and 1880.—The progress in the production and use of steam vessels is shown by the following statement of the number and tonnage of sailing and steam vessels above 50 tons, registered under the Merchant Shipping Acts, which belonged to the United Kingdom (exclusive of the Isle of Man and Channel Islands), 1854 and 1880:—

	Steam.		Sailing.		Total.	
	Num-ber.	Ton-nage.	Num-ber.	Ton-nage.	Num-ber.	Ton-nage.
1854	937	290,239	15,553	3,609,294	16,490	3,899,583
1880	3,786	2,688,769	11,569	3,545,528	15,355	6,234,297

[We will merely observe on this head that the immense development of steam power, and consequent continuous increase in the number of steam vessels, has much complicated the question of an equal distribution of taxation both amongst and as compared with sailing craft.—Ed. L-B. J.]

20. *Present tonnage laws do not operate against seaworthiness.*—The operation of the law of tonnage, as it affects the seaworthiness of ships, has occupied much of our attention. The decided preponderance of evidence is to the effect that considerations of a saving of tonnage dues do not operate with shipowners in the building of a ship in the form and of the dimensions most suitable to their purpose, and we have no distinct instance adduced to us to the contrary. But whether this be so or not, we have received abundant and unanimous testimony that in con-

struction, design, speed, economy, and safety, the British merchant ship of the present day is not only vastly superior to the British ship of a date prior to the present law of tonnage, but that great improvements have been effected within the last ten years. We have before us the fact that under the old tonnage law, by which the depth of a ship was not measured, but was assumed to be about half the breadth, ships were made abnormally deep; and if not actually made dangerous thereby, were a very bad type of ship.

21. *Open spaces on decks considered.*—It has, however, been represented to us by persons, whose opinions on the subject are well entitled to respectful consideration, that greater safety at sea would be secured if open spaces on the main deck of ships were covered-in, which they assert would be done were not the owners discouraged by the operation of the law, which requires that such covered in spaces be measured into and increase the tonnage of, and consequently the charges upon the ship.

24. *Tonnage laws not intended to influence construction of ships.*—It seems to us that the law for admeasurements of tonnage was not intended to raise, and should not raise or determine in itself any question of seaworthiness or fitness, nor favour any particular arrangement, construction, form, or design of a ship.

[This has never been asserted, but only that tonnage measurement as a basis of taxation, prior to 1854 if not now, made it the pecuniary interest of shipowners to build bad ships.—Ed. L-B. J.]

27. *Proposals and suggestions for change in the basis of tonnage system.*—Proposals have been made to us by persons of experience and authority for a radical change in the basis of tonnage. These proposals come to us in various forms:

1. That it should be the amount of dead-weight cargo (in tons of 20 cwt.) which a ship could carry on a fixed load-line.
2. That it should be the weight of the displaced water between a fixed light-line and a fixed load-line (which is practically equivalent to the above), the tons in weight (or the equivalent in cubic feet, calculated at 35 cubic feet to 20 cwt.) being reduced by a divisor so as to give a result approximating to present register tonnage, adding thereto, in the case of passenger ships, a proportion of contents of the space used by them.
3. That it should be the cubical contents or the displacement of the hull of the ship below a fixed load line.

A suggestion has also been made, that tonnage as a basis on which to measure the con-

tribution by ships for harbour and dock accommodation is unnecessary, and that the simple and more equitable basis on which to levy those dues would be the extent of water and quay space occupied, as shown by the length, breadth, and depth of the ship, and the time the spaces and accommodation are occupied by her.

28. *Gross tonnage as a basis of taxation.*—Another suggestion is that gross tonnage (under the present system of measurement), without any deductions whatever, should be the basis of taxation, and that dues on steamers should be levied at a lower rate per ton than on sailing vessels.

29. *Difficulties involved in inquiry committed to Commissioners.*—Before considering these proposed new systems, as well as the suggestions for the amendment of the existing law, we would advert to the wide scope of the inquiry committed to us, and to the great difficulties which surround the subject arising from the variety of types of ships, their many differences in form, construction, dimensions, and material, the varied uses and employment to which ships are put, the specialities of the ports to which they trade, and of the seas which they traverse, the diversity of the cargoes, animate and inanimate, which they carry, and, lastly, the inequalities arising out of the mode of propulsion.

31. *International engagements.* 25 & 26 Vict., c. 63, s. 60.—Our international engagements as to tonnage form another important element of consideration.

The Merchant Shipping Act Amendment Act, 1862, s. 60, enables Your Majesty by Order in Council to declare that when it is made to appear to your Majesty that the rules concerning the measurement of tonnage of merchant ships, for the time being in force, have been adopted by and are in force in any foreign country, the ships of such foreign country shall not be re-measured in British ports, but shall be deemed to be of the tonnage denoted in their national papers to the same extent and for the same purposes as the tonnage denoted in the certificates of registry of British ships.

33. *Advantage of an international system.* *International Tonnage Commission at Constantinople in 1873.*—The advantage of an uniform system of tonnage measurement for all nations is so evident that it need scarcely be insisted on. Nevertheless the negotiations to bring about so desirable a result have lasted for many years, and only after long and patient discussion have they resulted in the present approximation to uniformity of practice. The requirements of the Danube Commission and the difficulties with the Suez Canal Company gave an impetus to these negotiations; and in 1873 an International Tonnage Commission assembled at Constantinople, on the invitation of His Imperial Majesty

the Sultan, and comprised representatives of Germany, Austro-Hungary, Belgium, Spain, France, Great Britain, Greece, Italy, Holland, Russia, Sweden, Norway, and Turkey. At this Commission rules were made for a common system of tonnage for vessels of all nations. These rules, having been adopted by Turkey, became obligatory on the Suez Canal Company. Such countries as did not at once make them their own law, issued to their vessels special certificates of tonnage for the Suez Canal.

Appendix No. 1, Enclosure A. in No. 17.—We annex the full report of the Commission, and it is only necessary for us now to remark that, as follows from the above extract, the present law in this country was adopted, viz., roomage or internal cubical capacity, but with the modification that all spaces that could be readily closed in on the uppermost deck should be measured into gross tonnage, and in addition to deductions on account of crew space, deductions should further be made in respect of spaces necessary for purposes of navigation.

In respect of deduction for propelling space two alternative rules were adopted:—

1. The actual contents of engine and boiler-room plus 75 per cent. thereof for screw steamers and 50 per cent. for paddle steamers;
2. The actual contents of engine and boiler space and permanent bunkers;

with the proviso that this deduction should not exceed 50 per cent. of the gross tonnage, except in the case of tug-boats.

34. *Commissioners must determine what is the best practical system.*—Keeping in view all these considerations, it is clear that we have to determine not only what might be the best system for measuring tonnage, but what under existing circumstances is the best practical system; and the advocates of any radical change have to show not only that the system they propose is in itself greatly superior to the existing system, but that it is capable of easy practical application.

35. *Objects to be attained by any system.*—The following seem to us to be the paramount objects to be attained by any system for ad-measurement of tonnage:—

1. Just principles of taxation as between those who pay and those who receive dues on shipping.
2. Fairness as between the different classes of ships in respect of which such dues are paid.
3. The probability of its adoption in its entirety by the Governments of foreign countries.
4. That no encouragement be given to the construction of faulty or unseaworthy ships.

36. *Systems of tonnage discussed. None free from anomalies. Gross and register tonnage.*—

Considering the great complexity of the subject, there is probably no conceivable system which would attain these objects with absolute perfection, nor which would be entirely free from anomalies and practical difficulties. We readily admit that the measurement of the internal cubical capacity, with a gross and register tonnage, is not an absolutely perfect system, and that under its operation some anomalies and inequalities exist, all of which cannot be completely removed. We further concede that in a plan by which the tonnage should be based on dead weight carrying, pure and simple, or on the displacement of the ship, either between the light and load lines, or below the load line only, or on the time and dock space occupied by the ship, there is an apparent simplicity which, whatever other questions might arise, commends itself, at first sight, to very favourable consideration. The complicated questions as to water-ballast double bottom spaces, as to the admeasurement of awning-decks and other superstructures above the line of immersion, and as to the deductions for propelling power, would be avoided; and if all ships were designed and used for the carriage of dead weight cargoes, a system founded on the capacity for carrying dead weight would undoubtedly give equality of treatment as between ship and ship.

41. *Suggestion that tonnage is unnecessary, and other basis of taxation substituted.*—There remains to be considered the suggestion that a tonnage for ships is unnecessary, and that payment of dues and charges should be based on the dimensions of a ship (in the opinion of some persons the length and breadth only, and in that of others with the addition of depth also), and the time during which she occupies the water and quay accommodation.

The reply of dock authorities and others is that such a system would be an uncertain, complicated, and troublesome one to all parties concerned; that the accommodation required and afforded varies in respect to classes of ship and cargoes; that facilities for rapid discharge necessitate costly appliances, and are highly valued and readily paid for, in addition to ordinary dock rates, by ships under special circumstances; and, finally, that as quickness of discharge is more especially desired in respect to the most valuable ships and cargoes, payment by time would greatly favour one class of ship to the disadvantage of others less valuable.

42. *Principle on which tonnage is, at present, ascertained, affirmed by Commissioners.*—After carefully weighing all the considerations sur-

rounding this complex and difficult subject, and having special regard to the following facts,

First.—That the 39,000 ships, of all descriptions and size, constituting the British Mercantile Marine are now admeasured under a system based on internal cubical capacity, with deductions for crew and propelling space, and that the mercantile and shipping community are familiar therewith and base their transactions thereon;

Secondly.—That all the chief maritime countries of Europe, the United States, the Suez Canal Company, and the Danubian Commission have adopted our system, and that it is very desirable for statistical purposes and uniformity of taxation that an international tonnage should be established;

Thirdly.—That the dues levied in British and many foreign ports, and by the Commissioners of Lights, are on our present tonnage, and that great confusion, expense, and difficulty would arise on their adjustment to any other system;

Fourthly.—That many important financial engagements are based on dues levied under the present system;

Fifthly.—That anomalies and inequalities would exist in any alternative scheme that has been suggested to us; and

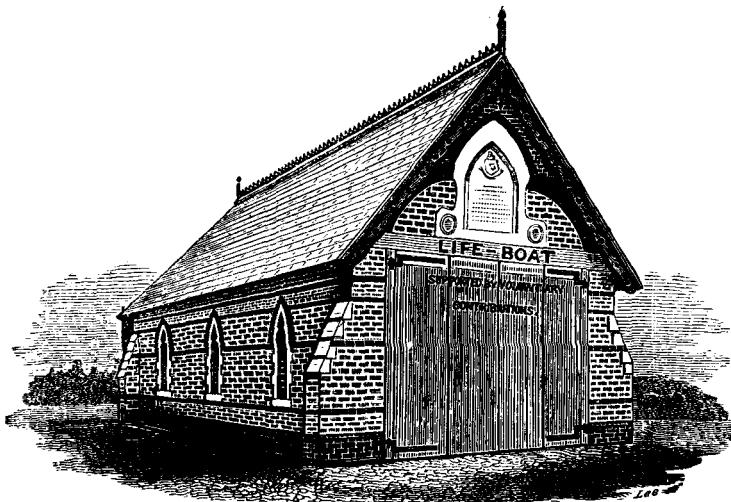
Lastly.—That one of the merits claimed for those alternative systems is that they practically arrive at the present tonnage by other means;

we have come to the conclusion that we cannot recommend a change in the law which would affect the principle on which tonnage is ascertained, viz., the contents of the internal capacity of a ship represented by a roomage or space ton of 100 cubic feet, with deductions for propelling space.

43. *Present law requires amendment in several particulars.*—We, however, are of opinion that the law is defective, and requires to be amended in several particulars, and we report that its principle is not fully and properly carried into effect; that the terms of the rules require amendment so as to make them suitable to the present state of shipbuilding; and that in certain particulars, to which we proceed to call attention, it is not altogether fair in its operation as between those who pay and those who receive dues on shipping, and as between the different classes of those who pay such dues.

Then follow sundry recommendations, amended rules, &c., by the majority of the Commissioners who signed the Report.

ADDITIONAL STATIONS AND NEW LIFE-BOATS.



ARDROSSAN, N.B.—The NATIONAL LIFE-BOAT INSTITUTION has provided a new Life-boat for this place, the crew having lost confidence in the old boat, consequent on her having upset when in tow. The new one is 34 feet long, $8\frac{1}{4}$ feet wide, and rows 10 oars, double banked; its form is particularly adapted for towing. It bears the same name as the one it superseded, the *Fair Maid of Perth*, which was chosen for it by the donor, PETER REID, Esq., of London, a most liberal supporter of the Institution. The crew were well pleased with the new Life-boat after giving it a trial, stating that it steered better, and was rowed more easily than the last one; indeed, it was considered to be in every way well suited to this Station.

POOLE, DORSET.—A new Life-boat has recently been placed on this Station by the Institution. It is one of the 34-foot 10-oared class, provided with a transporting carriage. Upon being tried by the crew in a strong wind from the E.S.E. and a heavy sea, the boat gave general satisfaction.

SENNEN COVE, LAND'S END.—This Life-boat having met with extensive damage at different times, has been replaced by a new boat, 34 feet long, $8\frac{1}{4}$ feet wide, and pulling 10 oars, doubled banked. It was presented to the Institution by Miss MARIA ONSLOW, of Staughton House, St.

Neot's, in memory of her late brother, the boat being named the *Denzil and Maria Onslow*. The Life-boat was publicly launched at Penzance on the 20th August last year, on the occasion of the Annual Swimming Races held there on that day. The self-righting property of the new boat was tested, and a friendly race took place between the Penzance and Sennen Life-boats, to the great satisfaction of a large number of spectators.

FRASERBURGH, N.B.—The Life-boat on this Station, which had been there for several years, has also been replaced by a sister boat to the one despatched to the Land's End, provided with a transporting carriage. The expense of the new Life-boat and equipment was defrayed by Captain GORDON, of Fyvie Castle, Aberdeenshire, and, in accordance with his request, it is named the *Cosmo and Charles*, in memory of two brothers of the donor. The public inauguration of the new Life-boat took place on the 4th September last year, on which occasion nearly 8,000 persons attended to witness the presentation, naming, and launch of the boat. After it had been taken in procession through some of the principal streets of the town, it was conveyed to the launching slipway. Lady SALTOUN, who was to perform the ceremony of naming, then stepped forward and addressed the numerous spectators. She expressed regret at the unavoidable

absence of Lord SALTOUN, and referred to the generosity of the donor in putting at their disposal such a handsome Life-boat, to which she wished all possible success, hoping that God would guide it in all its dangerous undertakings as He had guided its predecessors, which had been the means of saving sixty-seven lives from a watery grave. Her Ladyship's address was received with great enthusiasm, and she then proceeded to name the boat in the customary manner. Sir ALEXANDER ANDERSON, Captain the Hon. ARTHUR FRASER, P. H. CHALMERS, Esq., of Aberdeen, representative of Captain GORDON; ANDREW TARRAS, Esq., the Local Honorary Secretary of the Institution, and the District Inspector of Life-boats afterwards addressed the spectators; and the boat was then launched and tried by the crew, when it gave every satisfaction. The working of the rocket apparatus was also exhibited by the coastguard on the occasion.

ARDMORE, Co. WATERFORD.—A new 34-foot 10-oared Life-boat was forwarded to this Station in September 1880, in the place of a smaller boat. The expense of the new Life-boat Establishment was defrayed by Miss. A. M. HOOPER, of Bristol, the boat being named the *Hooper*, in accordance with her request. The City of Cork Steam Ship Company kindly gave the new and old boats a free conveyance on board their steamers between London and Cork. When the new Life-boat arrived at its destination it was tried by the crew, under the superintendence of the District Inspector of Life-boats, Lieut. TIPPING, R.N., when it gave every satisfaction.

TRAMORE, Co. WATERFORD.—The Life-boat on this Station has been replaced by

a new and larger boat, 34 feet long, 8 feet wide, and rowing 10 oars, double-banked. The Life-boat is furnished with a transporting carriage, and the boat-house has been extensively altered and renovated for its reception, so that the Life-boat Establishment is now quite equal to a new one. It is to be hoped that the present boat may be as fortunate in its career as the former Life-boats on this Station, which had been instrumental altogether in saving ninety-four lives from different shipwrecks. The boat superseded had been successful in saving no less than sixty-three lives. The cost of the new Life-boat was contributed to the Institution by HENRY TROWER, Esq., of London, and friends, in memory of his son, the late Mr. ALFRED TROWER, a well-known yachtsman. On the 18th September, 1880, a public demonstration took place at Tramore on the occasion of the inauguration of this new Life-boat. Some friends of the late Mr. Alfred Trower attended on the occasion, amongst whom was his sister, Miss ETHEL M. TROWER, who performed the ceremony of naming the boat after him.

The Hon. DUDLEY J. FORTESCUE, Chairman of the Tramore Branch of the Institution, received the boat on behalf of the Local Committee, and the District Inspector of Life-boats, Lieut. TIPPING, R.N., represented the Parent Institution on the occasion. The formal presentation was made by P. BENGE TROWER, Esq., brother of the gentleman after whom the boat is named. The Mayor of Waterford and the Lord Bishop of Cashel also delivered addresses prior to the launch. After the ceremony of naming, the boat was successfully launched, and the crew took her out for her first quarterly practice, under the direction of the District Inspector.

AN ATLANTIC STORM AND RESCUE.

THE accompanying graphic narrative of a fearful storm and a noble rescue in mid-Atlantic appeared some months ago in the *Daily Telegraph* under the signature of "Seafarer." No one can read this interesting account without feeling that the race of British sailors is as stalwart at the present day as at any previous period in their history, and that the seamen of the future will not lack graphic and truthful

writers of their deeds. Associated with the determined courage that has always been their distinguished characteristic, we now often find intelligence, skill, and the promptings of a generous heart.

"From time to time stories of acts of heroism performed at sea by sailors find their way into the newspapers. Some of these acts are very splendid illustrations of bravery, and, as we read them, we speculate perforce upon the reason why the modern British sailor is declared to be, in professional,

moral, and physical respects, inferior to his predecessors. Some people tell us that, what with steam, mixed crews, and new-fangled ways, the British mariner is no longer a real sailor, and that the race of bold and kindhearted British Tars has vanished, never to reappear. But Jack, as all the world knows, has always had an easy way with him; and his method of dealing with the current notions concerning his character—which, to be sure, nobody can satisfactorily account for, and to the accuracy of which nobody can be got to swear, is both original and modest. He does not write long letters to the papers. He does not try to look like a man who can dance a hornpipe. But from time to time—as often, indeed, as he gets the chance—he performs an action of which the nobleness and the heroism are not at all to be measured by the quality and extent of the paragraphs in which the deed is related. The pity is that so very little of what he does on the high seas ever reaches the public eye. The soldier has his newspaper correspondent; but Jack gets no better glorification than the dry, unsentimental abstract from the log-book. Some of these days, perhaps, Jack may be able to keep a reporter of his own; until then he must be satisfied to continue bravely working and nobly acting in obscurity, very little known, and when known decidedly misunderstood, the victim of traditions utterly irrational among a maritime people like ourselves, very rarely chronicled, and when chronicled, always briefly.

"Quite recently a very touching and inspiring drama has been enacted upon the high seas. The official report of it was no doubt printed in the shipping papers, but those organs are read almost exclusively by skippers, to whom such professional records are a familiar study that excites no other emotion than undemonstrative approval of the conduct of sailors who do their duty, and hearty disgust at the sailors who don't. The majority of our readers will probably, therefore, hear of this maritime incident for the first time to-day. The narrative is, however, quite a typical one, and its best merit, perhaps, lies in its exemplification of Jack's ordinary behaviour when afloat.

"On a certain Saturday, the well-known Cunard steamship *Parthia* was between four and five hundred miles distant from the west coast of Ireland, having sailed from the port of Boston on the previous Saturday. For some hours a low barometer had given warning of a coming gale. The breeze was fresh on the port quarter, with a long following sea, over which, under the impulse of propeller and canvas, the beautifully moulded hull of the great steamship rushed like a locomotive, raising a roar of thunder at her bows and carving out the green, glass-clear water with her stem into two oil-smooth combers which broke just abaft the fore-rigging and rushed with a swirl and brilliance of foam to join the long, glittering snow-line of the wake astern. There was a piebald sky, the blue in it tarnished and faint, and under it, like a scattering of brown smoke, the scud went floating swiftly. In the south and west the aspect of the heavens was portentous enough, with a leaden deadness of colour and a line of horizon as sharply marked as a ruling in ink. The gale was evidently to come from this quarter; and, sure enough, before eight bells in the afternoon watch, it was blowing a hurricane from the S.S.W. The fury of the wind raised a tremendous sea. The *Parthia* ran for a time; but running is not the remedy prescribed to captains who are caught in a circular storm; and, shortly after four o'clock, the helm of the steamer was put down and her head pointed to the seas. To understand the meaning of 'meeting the full force of a gale,' one should be hove to in a cyclone in the Atlantic. An Atlantic sea cannot

be compared for stupendousness with a Pacific sea; such a sea, for instance, as a heavy westerly gale will raise off Cape Horn or Cape Leeuwin. But there are few sailors acquainted with both oceans who would not rather encounter a gale in the South Pacific than a gale in the North Atlantic. The blow of an Atlantic wave seems full of a force and spiteful fury peculiar to itself. The intervals between the surges appear to bear no proportion to the height and velocity of the seas. In the Pacific a ship hove to rises and falls with the regularity of a pendulum. In the Atlantic she dances a wild and frightful dance. Whilst the bow is under water, the foam is blowing over the starboard quarter from the crest of a sea that threatens the wheel; and when you can touch the water over the taffrail, and the bowsprit forks up perpendicularly from the skyward-flying head, the vessel is beam-ended by a tremendous blow upon the port broadside—in short, you never know where an Atlantic sea is going to strike you next. The *Parthia's* passengers were below, considerably batted down by order of Captain M'Kaye, the commander of the vessel, so that they should not be washed overboard or drowned in the cabins, for now that the steamer's bow was pointed at the sea she was just one smother of froth from the eyes to the rudder-head. Her curtesy might have looked graceful at a distance, but it was a tremendous experience to those who had to keep time to her dance. Every now and again she would 'dish' a whole green sea forward—taking it in just as you would dip a pail into water—a sea that immediately turned the decks into a small raging ocean as high as a man's waist. As she rolled she shattered the furious tide against her bulwarks, where it broke into smoke and was swept away in clouds, like volumes of steam, for a whole cable-length astern. The grinding and straining of the hull, the hollow, muffled, vibratory note of the engines, the booming of the mighty surges against the resonant fabric, the screaming of the wind through the iron-stiff standing-rigging, and the enduring thunder of the tempest hurtling through the sky, completed to the ear the tremendous scene of warfare submitted to the eye in the picture of black heavens and white waters, and struggling, smothered, goaded ship.

"The *Parthia* lay hove to for six hours. At ten o'clock at night the gale broke, the wind sensibly moderated, the steamer was brought to her course, and went rolling heavily over the immense and powerful ocean swell which the cyclone had left behind it. The night passed; Sunday morning came with a benediction in the shape of a warm, bright sun. But the swell was still exceedingly heavy. Indeed, old Neptune could not forget his furious tussle, and the fierce, indignant heaving of his bosom promised to last for a good spell yet. It was shortly after two bells (nine o'clock), when the look-out man reported a vessel away on the lee bow, apparently hull down. Some of the passengers were on deck; but sighting a vessel at sea is no longer the interesting incident it formerly was, and the distant ship excited very little attention. As she was gradually hove up, however, by the approach of the *Parthia*, those who had sailor's eyes in their heads perceived that she was a vessel in distress, and that if any human beings were aboard of her, their plight would be one of the most miserable in the whole long catalogue of nautical miseries. She was water-logged, and so low in the water that she buried her bulwarks with every roll. She had all three masts standing; but her yards were boxed about anyhow, her running rigging in bights, with ends of it trailing overboard; her canvas was rudely furled, but she had a fragment of her fore-topmast

staysail hoisted, as well as a small storm staysail, and she looked to be hove to. Her aspect, had she been encountered as a derelict, was mournful enough to have set a sailor musing for an hour; but when it was discovered that there were living people on her, she took an extraordinary and tragical significance. No colours were hoisted to express her condition; but then no colours were needful. Her story wanted no better telling than was found in the suggestion of the small crowd of human heads on her deck watching the *Parthia*, in the dull and deadly lifting of the dark volumes of water against her sides, in the gushing of clear cascades from the scupper holes as she leaned wearily over to the fold of the tall swell that threatened to overwhelm her, and in the sluggish waving of her naked spars under the sky. Twenty-two people could be counted aboard of her. All these had to be saved, but it was very well understood by every man belonging to the *Parthia* that they could only be saved at the risk of the lives of the boat's crew that should put off for them, for the swell was still violent to an extent beyond anything that can be conveyed in words. As the *Parthia*, with her propeller languidly revolving, sank into a hollow, a wall of water stood between her and the barque, and the ill-fated vessel became invisible; then in another moment, hove high, the people on board the steamer could look down from their poised deck upon the half-drowned hull and the soaked, clinging, and pale-faced crew as you look upon a housetop in a valley from the side of a hill. The serious danger lay in lowering a boat. But Jack is not of a deliberative turn of mind when something that ought to be done waits for him to do it. Volunteers were forthcoming. The order was given. Eight hands sprang aft and seated themselves in the Life-boat, and the third officer, Mr. William Williams, took his place in the stern-sheets. It was one of those moments when the bravest man in the world will hold his breath. There swang this boat's crew at the davits; the ends of the falls in the hands of men waiting for the right second to lower away. One dark green foamless swell, in whole huge mountains of water, rose and sank below; too much hurry, the least delay, any lack of coolness, of judgment, of perception of the exactly right thing to do, and it was a hundred to one if the next minute did not see the boat dashed into staves, and her crew squattering and drowning among the fragments. The due command was coolly given; the sheaves of the fall-blocks rattled on their pins, and the boat sank down to the water's edge. A vast swell hove her high, almost to the level of the spot where she had been hanging, and, quick as mortal hands can move, the blocks were unhooked—but only just in time. Then a strong shove drove her clear, and in a moment she was heading for the wreck, now vanishing as though she had been wholly swallowed up by the tall green sparkling ridge that rose between her and the steamer, then tossed like a cork upon a mountainous pinnacle, with half her keel out of water. She had been well stocked with lines and life-buoys, for it was clearly seen that the pouring waters would never permit her to come within a pistol-shot of the barque, and the suspense among the passengers amounted to an agony as they wondered within themselves how those sailors would rescue the poor helpless creatures who watched them from the foamy decks of the almost submerged wreck. They followed the boat vanishing and reappearing, the very pulsation of their hearts almost arrested at moments when the little craft made a headlong, giddy swoop into a prodigious hollow and was lost to view, until presently they perceived that the men had ceased to row. It was

then seen that the third mate was hailing the crew of the barque. Presently they saw one of the shipwrecked sailors heave a coil of line towards the boat; it was caught, a life-buoy bent on to it, and hauled aboard the wreck. To this life-buoy was attached a second line, the end of which was retained by the people in the boat. One of the men on the wreck put the life-buoy over his shoulders, and in an instant flung himself into the sea and was dragged smartly but carefully into the boat. The *Parthia's* passengers now understood how the men were to be saved. One by one the shipwrecked seamen leapt into the water, until eleven of them had been dragged into the *Parthia's* boat. This number made a load, and, with a cheery call to those who were to be left behind for a short while, Mr. Williams headed for the steamer. The deep boat approached the *Parthia* slowly; but, meanwhile, Captain M'Kaye's foresight had provided for the perilous and difficult job of getting the rescued men on board the steamer. A whip was rove at the foreyard-arm, under which the rising and falling boat was stationed by means of her oars; one end of the whip knotted into a bowline was overhauled into the boat and slipped over the shoulders of a man, and at a signal a dozen or more of the *Parthia's* crew ran him up and swayed him in. In this way the eleven men were safely landed on the deck of the steamer. The boat then returned to the wreck, the rest of the crew were dragged from her by means of the buoys and life-lines, and hoisted, along with six of the *Parthia's* men, out of the boat by the yard-arm whip. But not yet was this perilous and nobly-executed mission completed. There was still the boat to run up to the davits. All the old fears recurred as she was brought alongside with Mr. Williams and two men in her. But Jack has a marvellously quick hand and a steady pulse; the blocks were swiftly hooked into the boat, and soon she soared like a bird to the davits under the strong running pull of a number of men before the swell that followed her could rise to the height of the chain plates.

To appreciate the pathos and pluck of an adventure of this kind, a man must have served as a spectator or actor in some such a scene. Words have but little virtue when deeds are to be told whose moving powers and ennobling inspirations lie in a performance that may as fitly be described in one as in a hundred lines. Such as remember the faces of those shipwrecked Englishmen and Canadians, the aspect of them as they were hoisted one by one over the *Parthia's* side; the bewildered rolling of their eyes incredulous of their miraculous preservation; their expression of suffering slowly yielding to perception of the new lease of life mercifully accorded them, graciously and nobly earned for them; their streaming garments, their hair clotted like sea-weed upon their pale foreheads; the passionate pressing forward of the crew and passengers of the *Parthia* to rejoice with the poor fellows on their salvation from one of the most lamentable dooms to which the sea can sentence, will wonder at the insufficiency of this record of as brilliant and hearty though simple a deed as any which makes up the stirring annals of the maritime life. But told, even as it is here told, the public may think it a story worth the telling, if only that it should serve to make mercantile Jack better known and more respected. The sea is the noblest theatre we have, and of the dramas enacted upon it Englishmen, at least, should not sit unmoved spectators. Nor would they if only novelists and dramatists would do him justice, and, looking no longer to the fictions of landsmen for ideas of the British sailor, study him in his fore-castle and follow him upon the high seas.

THE WRECK REGISTER AND CHART FOR 1879-80.

A FEW days after the British Isles have been visited by one of the most destructive storms on record, it may not be inappropriate to call attention to the last issue of the Wreck Register. Its pages clearly show that, along with the expansion of our shipping interests, disasters at sea continue to maintain, unfortunately, their wonted pre-eminence—2,519 wrecks having occurred on our coasts and seas last year, which are fully and minutely detailed in the Register. The magnitude of our shipping interests will soon clearly become larger than all the other shipping interests of the world combined.

Some trite remarks relating to this subject were made, as its President, by the Earl of Ravensworth at the opening of the last session of the Institution of Naval Architects, and which emphasize again the absolute necessity of being amply provided with Life-boats and other means to meet the shipping catastrophes on our shores. It appears from what his Lordship said that there is invested in the shipping interest of this country one hundred millions of money. There are employed 200,000 men, who earn 10,000,000*l.* of wages annually. Besides this, there are 100,000 more men employed in ship-building establishments and marine engine works, earning wages to the annual amount of seven millions of money. This is a mighty interest—now for its importance. In peace the shipping interest of this country largely feeds our teeming multitudes of working men. It is a fact, as stated by the Vice-President of the Committee of Council, that about one half of the butcher's meat slaughtered in London is imported from abroad; but not only that, our working millions are indebted for the whole of the raw material to be worked into manufactured goods, from which they derive their livelihood, to the shipping interests of this country. These two facts are sufficient to justify one in calling the shipping interest the most

important of our national interests, with one exception—that of agriculture. So much for its importance in peace, but the foresight of Governments has also secured, in case of war, the service to the country of those magnificent steamers which form the great ocean liners that convey all this vast commerce to our shores.

Again, our steam fleet has increased since 1850 from 1,350 to 6,690 vessels, representing 2,730,000 tons of shipping, or 1,000,000 tons more than all the steam fleets of the world put together. We thus hold the very highest position in the carrying trade of the world. In regard to large ocean sailing ships, America holds a very good position. England stands first on the list with 1,276 ships; and America has 884. Norway stands very close to America with 882; France has only 57. When we turn to the ocean steam tonnage, we find that out of a total of 590 steamers engaged in the trans-oceanic trade, England counts for 447, America for only 46; and of these 14 only are trans-oceanic strictly speaking. Twenty-five years ago the United States carried 75 per cent. of their own trade in their own ships. Steamers are monopolising the carrying trade, and of the 156,000,000*l.* worth of produce that is exported from New York to England, 130,000,000*l.* is now carried by steamers.

It is a remarkable fact that there is not a single American iron steamship crossing the Atlantic Ocean from the great port of New York.

Resuming our comments on this Wreck Register for the past year it is hardly possible to vary them from year to year, inasmuch as the usual class of tabulated figures are given on every page without one line of explanation or remark. However we must try again to elicit a few instructive facts from these figures, which are as usual most accurately arranged.

The 2,519 wrecks of 1879-80 include

every kind of maritime disaster. Thus of the whole number of wrecks, casualties and collisions only 355 cases involved total loss, or about 1 in 7 of the vessels lost or damaged, while only 81 of the cases were accompanied by loss of life.

Deducting these 355 destructive cases from the year's casualties, the balance consists of 1,130 more or less serious disasters, and 1,034 other wrecks.

Taking the aggregate number of shipwrecks the total is truly startling. Here is the sad record:—1854 (last six months), 458; 1855, 1,141; 1856, 1,153; 1857, 1,143; 1858, 1,170; 1859, 1,416; 1860, 1,379; 1861, 1,494; 1862, 1,488; 1863, 1,664; 1864, 1,390; 1865, 1,656; 1866, 1,860; 1867, 2,090; 1868, 1,747; 1869, 2,114; 1870, 1,502; 1871, 1,575; 1872, 1,958; 1873 (six months), 967; 1873-4, 1,803; 1874-5, 3,590; 1875-6, 3,757; 1876-7, 4,164; 1877-8, 3,641; 1878-9, 3,002; and 1879-80, 2,519; making a total number of wrecks in twenty-six years of 51,841, and what is still more lamentable, the actual loss from these very shipwrecks of 18,550 lives, a total nearly equal to the number of men who man the British Fleet.

Distressing as this fearful loss of Life undoubtedly is—apart entirely from the vast destruction of property recorded—the loss of life would have been truly appalling in the absence of the ceaseless exertions during the same period of the NATIONAL LIFE-BOAT INSTITUTION, supplemented by those of the Coastguard and the Rocket Brigades under the supervision of the Board of Trade. In corroboration of this fact, we quote the actual number of lives which the Institution has contributed to save during the corresponding period named above, viz.:—1854, 355; 1855, 406; 1856, 473; 1857, 374; 1858, 427; 1859, 499; 1860; 455; 1861, 424; 1862, 574; 1863, 714; 1864, 698; 1865, 714; 1866, 921; 1867, 1,086; 1868, 862; 1869, 1,231; 1870, 784; 1871, 882; 1872, 739; 1873, 668; 1874, 713; 1875, 921; 1876, 600; 1877, 1,048; 1878, 616; 1879, 855; and 1880, 697—

Total, 18,736. Such a record of noble deeds done as this statement shows needs no comment, for it stands alone in the World's History as regards Saving Life from Shipwreck, and is a monument of Christian philanthropy, of dauntless intrepidity, and of the ingenuity of the age in which we live.

It appears that 3,138 vessels were involved in the wrecks—2,519—of the year. The number of ships is in excess of the casualties reported, because in cases of collision two or more ships are, of course, involved in one casualty. Thus 603 were collisions, and 1,916 were wrecks and casualties other than collisions. On sub-dividing these latter casualties we find that 291 were wrecks, &c., resulting in total loss, 591 were casualties resulting in serious damage, and 1,034 were minor accidents. During the year 1878-79 the wrecks and casualties other than collisions on and near our coasts numbered 2,301, or 385 more than the number reported during the twelve months now under discussion.

The localities of the wrecks, still excluding collisions, are thus given:—East coasts of England and Scotland, 573; south coast, 360; west coasts of England and Scotland, and coast of Ireland, 747; north coast of Scotland, 64; and other parts, 172. Total, 1,916.

The greatest destruction of human life happened on the west coasts of England and Scotland, and east coast of Ireland.

On the accompanying Wreck Chart for the year under consideration, the sites of the various shipwrecks are delineated with great accuracy, and the havoc thus created is clearly depicted. The chart, however, does not tell the important fact that the Life-boats of the Institution, the Rocket Apparatus of the Board of Trade, and other means, save every life from shipwreck on our coasts that it is practicable to save.

Again, excluding collisions, out of the 1,916 casualties, 1,674 disasters occurred to vessels belonging to this country and its dependencies, and 242 disasters



WRECK CHART OF THE BRITISH ISLES

FOR

1879-80

Compiled from the Board of Trade Register.

SHOWING ALSO THE PRESENT
LIFE BOAT STATIONS.

●..... SIGNIFIES A CASUALTY.
✠..... REPRESENTS A LIFE BOAT.

Scale of Nautic Miles
10 0 50 100



happened to ships which belonged to foreign nations. Of these 1,674 British vessels, 1,095 were employed in our own coasting trade, 497 in the (oversea) foreign and home trade, and 82 as fishing vessels. There were 7 casualties to ships belonging to foreign countries and states employed in the British coasting trade, and 180 to foreign vessels bound to or from British ports, although not actually engaged in our coasting trade; while there were 55 casualties to foreign ships which were not trading to or from the United Kingdom.

The Register gives figures showing that between 1861 and 1880 the number of British and Foreign ships that were wrecked on our coast, and from which life was lost, was 3,109, resulting in the loss of 14,711 lives—a most distressing fact, showing the urgent necessity of continued and ceaseless efforts to counter-act it.

Again, we observe with concern that the total number of English ships, which appear to have foundered or to have been otherwise totally lost on our shores, from defects in the ships or their equipments during the year, is 30; while 68 happened through the errors, &c., of masters, officers, crews, or pilots, 97 through stress of weather, and 42 from other or unknown cases.

The number of casualties arising from the same causes during the year, and resulting in serious damage, is as follows:—Through defects, 45; errors, 115; stress of weather, 213; other causes, 126; and the cases of minor damage were, through defects, 62; errors, 132; stress of weather, 581; and other causes, 163.

It is interesting to observe the ages of the vessels wrecked during the period under consideration. Excluding foreign ships and collision cases, 145 wrecks and casualties happened to nearly new ships, and 223 to ships from 3 to 7 years of age. Then there are wrecks and casualties to 329 ships from 7 to 14 years old, and to 586 from 15 to 30 years old. Then follow 262 old ships from 30 to 50 years old. Having passed the service of half a

century, we come to the very old ships, viz. 37 between 50 and 60 years old, 20 from 60 to 70, 7 from 70 to 80, 5 from 80 to 90, and 2 upwards of 100 years old, while the ages of 58 of the wrecks are unknown. Nearly all these no doubt were wooden vessels; they are rapidly becoming ships of the past, and are replaced by stately iron and steel ships.

Excluding collisions, 405 steamships, and 1,511 sailing vessels, were lost or injured on our coasts last year. Of the 1,674 British ships meeting with disaster in the year, 872 did not exceed 100 tons burthen, 459 were from 100 to 300 tons, 107 were from 300 to 500 tons, and 236 were above 500 tons burthen. Of the 237 British vessels totally lost, irrespective of collisions, 23 are known to have been built of iron; and of this number, 18 were steamships, and 5 were sailing vessels.

The Wreck Register only gives the winds in 679 out of the 2,519 cases. Dealing with these 679 cases only, we find that the winds that have been most fatal to shipping on and near the coasts of the United Kingdom during the year were as follows:—N. to E. inclusive, 107; E. by S. to S. inclusive, 138; S. by W. to W. inclusive, 310; and W. by N. to N. by W. inclusive, 124. Total, 679.

On distinguishing these last-named casualties, according to the force of the wind at the time at which the disaster occurred, 310 happened with the wind at forces 7 and 8, or a moderate to fresh gale, when a ship, if properly found, manned, and navigated, ought to be able to keep the sea with safety; while 369 disasters happened when the force of the wind was 9 to 11, that is to say, from a strong gale to a storm.

Happily the casualties to ships in our rivers and harbours were not so numerous during the year; the number having been 729, of which 9 were total losses, and 720 were partial casualties.

Of these casualties, collisions numbered 526, foundering 3, strandings 144, and miscellaneous 56.

These 729 casualties caused the loss of

or damage to 1,289 vessels, of which 641 were British sailing vessels, 562 British steam-vessels, 62 foreign sailing vessels, and 24 foreign steam-vessels. The lives lost in these casualties were:—In the Thames (above Gravesend) 7; in the Mersey (above New Brighton) 2; in the Avon 2; and in the Usk 1. Total, 12.

Of the collisions during the year, 48 of the 603 cases were between two steam-ships both under way, 181 between two sailing vessels both under way; and 164 between a steam-vessel and a sailing vessel both under way. The importance of this fact cannot be overrated, for it is hardly possible to conceive a casualty more awful in its consequences than a collision between two great ships at sea.

As regards the loss of life, the Wreck Abstract shows that the number was 231, from the various shipwrecks enumerated during the twelve months—a number fortunately smaller than ever previously known, notwithstanding the large number of the wrecks of the year, and the constant increase of new ships.

Of the lives lost, 17 were lost in vessels that foundered, 62 through vessels in collision, 80 in vessels stranded or cast ashore, and 40 in missing vessels. The remaining 32 lives were lost from various causes, such as through being washed overboard in heavy seas, explosions, missing vessels, &c.

Of the 81 ships from which the 231 lives were lost, 72 were British, involving the loss of 183 lives, and 9 were foreign, causing the loss of 48 lives.

In the midst of this doleful record of disasters at sea in one year, it is gratifying to observe that by means of the Life-boats, the Rocket Apparatus and other agencies, in conjunction with the successful efforts used on board the distressed vessels themselves, as many as *two thousand nine hundred and twenty-three* lives were saved from the various wrecks on our coasts last year. Thus may the NATIONAL LIFE-BOAT INSTITUTION continue to pursue its great and national work, and, resting firmly on the blessing of God on its work, appeal with renewed assurance and confidence to the public for support.

SERVICES OF THE LIFE-BOATS OF THE NATIONAL LIFE-BOAT INSTITUTION (*continued*).

BALLYWALTER, Co. DOWN.—On the evening of the 4th April, 1881, information was brought from the Coastguard Station that the Bell Buoy, a vessel which is placed about two miles off the shore to warn vessels off the Stullmartin Reef, had broken adrift. As there was a strong wind at the time, with considerable sea, precluding the use of any ordinary boat, the Ballywalter Life-boat was launched, and with great difficulty got the craft into the harbour.

BROUGHTY FERRY, N.B.—It was reported, about 5 P.M. on the 4th March, that a schooner had gone ashore on the Lady Bank, and when she could be seen through the snow and drift, which was only at intervals, she appeared to be partially dismasted. The *English Mechanic* Life-boat went out under oars, in

the teeth of a strong S.E. gale and heavy sea, and found the vessel was ashore between the Lady Bank and the mainland. The weather was very thick, and as darkness was coming on, the Life-boatmen exerted themselves to the utmost to rescue the crew before it became totally dark. After nearly two hours hard pulling, the Boat got alongside the vessel, which proved to be the Swedish schooner *Niels*, took off the crew of five men, and safely landed them at Broughty Ferry.

QUEENSTOWN.—A telegram was received from the officer of Coastguard at Ballycraheen, at about 3 A.M. on the 4th March, stating that a vessel was displaying signals of distress off that place. The *Quiver* Life-boat was speedily despatched to the spot in tow of the tug *Lord Bandon*, and found that the brigantine *Bessie Whinery*,

of Maryport, from Pembrey for Cork, with a cargo of coal, was embayed; she was, however, under way, and endeavouring to beat out of the bay when the Life-boat arrived. Some of the Boat's crew went on board to assist at the pumps and direct her into port, where she arrived about 9 A.M. She carried a crew of six men.

MONTROSE, N.B.—On the 5th March, during a very heavy gale from the S.S.E., and an exceedingly heavy sea, accompanied by a snowstorm, the schooner *Agnes*, of Llanelly, bound thence to Newcastle, while running for Montrose Harbour, went ashore on the sands to the northward of the Annat Bank. The No. 2 Life-boat *Roman Governor* of *Caer Hân* immediately put off

to her assistance through a very heavy surf, and, after a severe struggle, rescued her crew of five men. In the absence of the regular crew, this Life-boat was partly manned by eight young fishermen, who volunteered for the service, and who behaved admirably under very arduous circumstances.

On the following day the gale still continued, and as it was reported that several vessels were ashore along the coast, and that others were in danger, the crews of the Life-boats assembled in readiness for service. At about 10 A.M. the brig *August*, of Barth, bound from Antwerp to Newcastle, in ballast, was seen to be gradually driving ashore. The No. 1 Life-boat *Mincing Lane* was accordingly sent to the mouth of the harbour, and



the No. 2 Life-boat was despatched to the beach. The brig missed the harbour's mouth and went ashore about a quarter of a mile north of the Annat Bank. The No. 2 Life-boat was launched with the aid of the numerous spectators, who gallantly assisted in the work despite the waves, which again and again came upon them, completely drenching them, and placing them in some peril. No sooner was the Boat floated off than she was dashed back again, and it was only after the most strenuous efforts had been put forth that she succeeded in getting away, when she rowed towards the brig through a very heavy surf. Meanwhile the No. 1 Life-boat, seeing the danger of the brig, pulled across the Annat Bank in a very dangerous sea, and reached the vessel first, but was driven past her two

or three times, although her veering line was fast to her. The No. 2 Boat then got nearer to the vessel, and, being a lighter boat, the veering line was transferred to her, and she got alongside the brig and rescued the crew, consisting of seven men, and safely landed them, amidst the cheers of the spectators. The brig's masts soon afterwards went overboard, and she broke up entirely within an hour or two.

The Life-boats had scarcely been hauled out of the surf after the performance of the last-named service, when the s.s. *Norma*, of Bergen, bound to that port from Newcastle with coal, was seen to be driving ashore, and she eventually stranded about a mile north of Montrose. She made signals of distress, in response to which the No. 2 Life-boat, which had

been taken along the beach to the spot, the carriage being drawn by ten horses, was again smartly launched through the surf and pulled to the steamer, when she rescued eleven of her crew. Another seaman unfortunately fell into the sea while making his way along the rope to the Boat, and was drowned. The behaviour of the Life-boat on these occasions gave great satisfaction to the crews, and the coxswains stated that they felt sure that the No. 2 Boat could be launched off their shallow beach under the heaviest sea, with sufficient assistance.

A large subscription was raised locally to reward the Life-boatmen for their gallantry and resolution in rendering these services, and the Coastguardmen and others who had also rendered efficient help by the Rocket Apparatus and other means, in saving life from the numerous wrecks on the coast of Aberdeenshire in the month of March last.

The presentation of medals and pecuniary rewards, in addition to the payments awarded by the Institution to the coxswains and crews of the Life-boats, was made on the 14th May at a public meeting held in the Guildhall, Montrose, under the presidency of Provost Japp, and which was very largely attended.

The zealous Hon. Sec. of the Montrose Branch of the Institution, Mr. JAMES WARRACK, read to the meeting a summary of the above-mentioned services of the Montrose Life-boats on the 5th and 6th of March, and stated that during an experience of twenty-five years he had not seen more arduous, more hazardous, and more successful Life-boat work than on this occasion. The storm was of unusual violence; the three vessels drove ashore on the long shallow beach, where the sea was breaking in long rollers. It required all the efforts of the Life-boatmen, aided by numerous spectators, to force the No. 2 Boat afloat, and then there was the great danger of her striking the ground and upsetting, every recurring wave breaking heavily over her. The No. 1 Boat incurred similar danger in dashing across the Annat Bank to the brig *August*, exposed to a broadside sea. She was filled by a heavy sea breaking over her, and had a narrow escape of being upset, as she was, in similar circumstances eight years ago, when the half of her crew were washed out of her, and

one of them died from the injuries received.

Mr. DAVID DUNCAN, Sen., coxswain of the Life-boat, expressed the grateful acknowledgments of the coxswains and crews of the Life-boats, for the rewards thus bestowed on them. He said that it was a great encouragement to them, and would be a fresh stimulus for them in time to come. They considered that it was the bounden duty of men who had been trained to a seafaring life to go out and save shipwrecked sailors. It was arduous work; at the same time he desired to say how much the Life-boatmen were inspirited on the occasions in question, by seeing how ready the landmen were to go into the water, and even risk getting washed away by the sea in their efforts to launch the Life-boats.

St. ANDREW'S, N.B.—On the 5th March, at about 1 P.M., during one of the most violent storms which has visited this coast for years, and amid blinding showers of snow, a schooner was observed being driven before the fury of the gale towards the West Sands. The *Ladies' Own* Life-boat, at once proceeded to the rescue, and, amid the hearty cheers of thousands of spectators, brought safely ashore the crew of five men from the vessel, which proved to be the schooner *Harmonie*, of Mandal, Norway, with a cargo of pit props. While the Life-boat was alongside the wreck, one of her crew was washed overboard, but he was recovered after he had struggled some time with the heavy waves. Soon after the men were landed the schooner became a total wreck.

At about 10 A.M., on the 7th March, a message from Boarhills reported that a vessel was in a dangerous position about 4 miles east of St. Andrew's. The wind had fallen, but a very heavy sea was still running. The *Ladies' Own* Life-boat was launched at the harbour's mouth, and proceeded in search of the vessel, the weather being very thick at the time. She returned about 2 P.M., bringing with her the crew of six men of the three-masted schooner *Grasshopper*, of Southampton, who were safely landed at St. Andrew's.

PENARTH, SOUTH WALES.—At daylight on the 9th March the Coastguard on duty observed a small vessel ashore in a very

dangerous position on Cardiff sands. The wind was blowing strong from the W.S.W., accompanied by a heavy sea. The Life-boat *Joseph Denman* was launched and proceeded to the vessel, which was found to be the ketch *Bristol Packet*, of Newport, Mon. The crew asked that the Life-boat might remain by the vessel, the master stating that she was strongly built, and that they hoped when the flood tide made she would float off the sands, which she eventually did, and bore away for Newport, the Life-boat then returning to her station.

WEXFORD.—At 9 P.M. on the 18th March signals of distress were observed from a vessel on the North end of the Dogger Bank. The *Civil Service* No. 1 Life-boat was immediately launched, and proceeded to render assistance. On arriving alongside the vessel, which was the schooner *Blue Jacket*, of Beaumaris, bound from Bangor to Wexford, with a cargo of slates, some of the Life-boatmen went on board, assisted to lighten her, and got her afloat at about 7.30 on the following morning. She carried a crew of three men.

THEDDLETHORPE, LINCOLNSHIRE.—At daybreak on the 19th April the trawler *Shamrock*, of Hull, was observed ashore about a quarter of a mile N. of the Theddlethorpe Life-boat station, during stormy weather and a very heavy sea. The Life-boat *Dorinda and Barbara* put off to her assistance, but, owing to the wind and the unusually heavy sea, she was driven to leeward, and had to be beached. She, however, proceeded out again as soon as the tide served, and with great difficulty, owing to the floating wreckage and the heavy surf round the wreck, she succeeded in rescuing the crew, consisting of five men, from the rigging of their sunken vessel.

LOSSIEMOUTH, N.B.—On the 27th April, at 4 A.M., the Life-boat *Bristol and Clifton* put off, and rescued five men from the schooner *Cavalier*, of Lossiemouth, which had been driven ashore about fifty yards eastward of the old harbour. The wind was blowing from the S.W. at the time, accompanied by a heavy surf.

PALLING-BY-THE-SEA, NORFOLK.—At

1 A.M. on the 3rd May, during a strong gale from the N.E. with a heavy sea, a vessel was observed on shore at Waxham, showing signals of distress. With all possible speed the Life-boat *Parsee* was at once taken along the coast, and, on arriving opposite the stranded vessel, she was launched through the heavy surf with much difficulty, and, after battling with the waves, succeeded in reaching the vessel and rescued her crew of five men. She proved to be the fishing smack *Catherine*, of Ramsgate.

SIDMOUTH.—On the morning of the 23rd May H.M.S. *Lively*, with the DUKE and DUCHESS of EDINBURGH and suite on board, arrived off Sidmouth, and came into the bay, in order that his Royal Highness might land and inspect the Coastguard Station. Shortly after nine o'clock a steam pinnace was lowered from the *Lively*, and the DUKE and DUCHESS, Lady HARRIET GRIMSTON, and Mr. H. H. RICKARD, R.N., proceeded in it towards the shore. An increasing swell was rolling in from the S.E. at the time, and as the steam-launch neared the land she was struck by a sea, which nearly capsized her. The Life-boat *Rimington*, which had been got out in readiness for inspection by his Royal Highness, was at once launched and proceeded alongside, when the DUKE and DUCHESS and their party were taken into the Life-boat and safely landed, the boat only shipping a little spray as she grounded on the beach. There is no doubt that considerable risk would have attended any attempt to land from the launch, as this beach is rather a dangerous one, when there is any sea on, on account of its steepness.

SUMMARY OF THE MEETINGS OF THE COMMITTEE.

THURSDAY, 5th May, 1881.

THOMAS CHAPMAN, Esq., F.R.S., V.P., Chairman
of the Institution, in the Chair.

Read and approved the Minutes of the previous meeting, and those of the Finance and Correspondence, and Wreck and Reward Sub-Committees.

Also the reports of the five District Inspectors

of Life-boats on their visits to the following Stations:—

No. 1 District. Capt. the Hon. H. W. CHETWYND, R.N., London—New Romney.

No. 2 District. Commander C. LAPRIMAUDAYE, R.N., Bristol—Appledore (two Boats), Braunton, Ilfracombe, Lynmouth, Morte, Watchet, and Burnham.

No. 3 District. Lieut. H. T. G. TIPPING, R.N., Dublin—Fleetwood, Whitehaven, Seascale, Maryport, Silloth, Piel, Blackpool, Lytham, Southport, New Brighton (two Boats), Douglas (two Boats), Ramsey, and Castletown.

No. 4 District. Lieut. GERALD R. MALTBY, R.N., Edinburgh—Cruden, Newburgh, Stonehaven, Gourdon, Montrose (two Boats), Arbroath, Buddon Ness, Broughty Ferry, and St. Andrews.

No. 5 District. Commander ST. VINCENT NEPEAN, R.N., Hull—Middlesboro', Redcar, Saltburn, Staithes, Runswick, Filey, Bridlington, Flamborough (two Boats), Withernsea, and Hornsea.

Reported the receipt of the following Special Contributions since the last meeting:—

	£.	s.	d.
Macdonald Lodge of Freemasons, No. 1216, per Captain ARTHUR STYAN	5	5	0
Collected from Visitors at the Clifton Down Hotel, per Lieut. R. H. EYRE, R.N.	1	3	6
—To be severally thanked.			

Also that the following Legacies had been bequeathed to the Institution:—

	£.	s.	d.
The late Mrs. A. P. FORTUNE, of Liverpool	200	0	0
The late CECIL MEYER, Esq. of Up- per Norwood	2	2	0

Voted the thanks of the Committee to T. F. EVANS, Esq., and Mr. A. P. BRAY, in acknowledgment of their past kind co-operation as Honorary Secretaries, respectively, of the Bull Bay and Harwich Branches of the Institution.

The Committee expressed their deep sympathy with LORD ROBARTES, V.P., and with his son, Mr. AGAR ROBARTES, M.P., on the sudden and much lamented death of LADY ROBARTES, on the 12th April last.

The Committee also expressed their deep regret at the death of Capt. W. HUTCHISON, R.N., who was for many years the zealous Honorary Secretary of the Kingstown Branch of the Institution, and who had received its Gold Medal for gallant deeds in saving life from shipwreck.

Read letter from the MARQUIS DE RUBALCAN, President of the Spanish Life-boat Society, of the 29th March, calling attention to the establishment of that Society, and expressing a hope that it might rival in usefulness on the Coast of Spain the work of the NATIONAL LIFE-BOAT INSTITUTION on the shores of the British Isles.—To be acknowledged.

Ordered that various works be carried out at the Staithes, Nairn, Hastings, and Kimeridge Life-boat Stations, at a cost of 298*l*.

Paid 128*l*. 17*s*. 10*d*., for sundry charges on various Life-boat establishments.

Voted 102*l*. 2*s*. 6*d*. to pay the expenses of the

Life-boats at Newquay (Cornwall), Porthcawl, Theddlethorpe, and Palling, in rendering the following Services:—

	Lives saved.
Steamer <i>Celeste</i> , of Hartlepool. Rendered assistance.	
Barque <i>Marmora</i> , of Copenhagen	8
Smack <i>Shamrock</i> , of Hull	5
Fishing smack <i>Catharine</i> , of Ramsgate	5
The Portmadoc Life-boat had rendered as- sistance to the barque <i>Matilda</i> .	

The Ballywalter Life-boat had brought into harbour the Bell Buoy boat which had broken adrift, and the Lossiemouth Life-boat had saved the crew, consisting of five men, of the schooner *Cavalier*, of Lossiemouth.

[Accounts of some of these Life-boat Services will be found on pages 423-426.]

Voted also 38*l*. 6*s*. 9*d*. to pay the expenses of the Harwich, Clacton-on-Sea, and Donna Nook Life-boats in putting off to the aid of vessels which had shown signals of distress, but which did not ultimately require the assistance of the boats.

The Ramsgate Life-boat had also been taken out, but her services had not been required.

Read letter from the Honorary Secretary of the Harwich Branch, stating that the Silver Medal voted by the Institution to Mr. WILLIAM BRITTON, Coxswain of the Harwich Life-boat, in acknowledgment of his services on the occasion of the wreck of the Dutch steamer *Ingerid*, had been presented to him by SIR HENRY TYLER, M.P., at a public meeting, held at the Town Hall, Harwich, on the 9th April. At the same meeting, Medals which had been granted by the SOUTH HOLLAND SOCIETY FOR THE PRESERVATION OF LIFE FROM SHIPWRECK, were also presented. They comprised a Gold Medal to Capt. ST. VINCENT NEPEAN, R.N., District Inspector of Life-boats, a large Silver Medal to Mr. WILLIAM BRITTON, and a Silver Medal to each of the crew of the Harwich Life-boat, accompanied in each case by a testimonial on vellum, in acknowledgment of their services to the steamer *Ingerid*.

Also read letter from the Board of Trade, forwarding a copy of a communication from the Swedish and Norwegian Minister at the Court of St. James, requesting that the thanks of his Government might be conveyed to the crew of the Nairn Life-boat in recognition of their noble and humane conduct in rescuing the crew of the schooner *Anne Marie*, of Krageroe, on the 20th January.

Voted 2*l*. to Mr. BERNARD HAMILTON, Coxswain of the Black Rock (Dundalk), Life-boat, and 2*l*. 10*s*. to five other men, for their prompt and laudable services in proceeding to the rescue of a man who had gone out on the ice to recover one of the buoys which had broken loose in Dundalk Bay, and who had been unable to regain the shore during the severe weather experienced on the 18th January.

Also 5*l*. to six Coastguard men for putting off in their boat at great risk, and saving two men from the fishing boat *Start*, of Porthleven, which was in distress off Cadgwith, Cornwall, during a moderate gale from the E. and heavy sea, on the 30th March.

Also 2*l.* 10*s.* to five men for putting off in a boat and assisting to save the fishing lugger *Royal Diadem*, of Cellardyke, and her crew of six men, when that vessel was in distress off Bressa, Shetland, during a snow storm, and a high sea on the 20th March.

THURSDAY, 2nd June.

The Chairman of the Institution in the Chair.

Read and approved the Minutes of the previous meeting, and those of the Finance and Correspondence, and Wreck and Reward Sub-Committees.

Also the report of the Chief Inspector of Life-boats on his recent visits to Eastbourne, Hastings, Clacton-on-Sea, and Grimsby.

Also the reports of the five District Inspectors of Life-boats on their visits to the following Stations:—

1. Guernsey, Alderney, Newhaven, Hastings, Winchelsea, Rye, Lydd, Hythe, and Dover.

2. Rhyl (two Boats), Llanddulas, Holyhead, Rhoscolyn, Rhosneigr, Cemaes, Penmon, Cemlyn, Llanddwyn, Bull Bay, Moelfre, and Llandudno.

3. Howth, Poolbeg, Balbriggan, Skerries, Rogerstown, Greencastle, Portrush, Groomsport, Ballywalter, Newcastle, and Tyrella.

4. Anstruther, North Berwick, Eyemouth, Berwick, Dunbar, North Sunderland, and Holy Island (two Boats).

5. Clacton, Harwich, Thorpeness, Aldborough, Dunwich, Southwold (two Boats), Kessingland (two Boats), Pakefield (two Boats), Lowestoft (two Boats), Yarmouth (two Boats), Gorleston, Caister (two Boats), Winterton (two Boats), Palling (two Boats), Hasborough, Bacton, Mundesley, Cromer, Sheringham, and Blakeney.

Reported the receipt of the following Special Contributions since the last meeting:—

	£.	s.	d.
JAMES CHADWICK, Esq., balance of cost of St. Anne's Life-boat Station (in addition to previous gift of 100 <i>l.</i>)	230	0	0
The late JOSIAH RUCK, Esq., per Mrs. RUCK	100	0	0
Anonymous—Psalm lxxvi. 13, 14	20	0	0
A. PECKOVER, Esq., Wisbeach (additional)	20	0	0
Collected on board the s.s. <i>Orient</i> , per Capt. HEWISON	10	0	0
Proceeds of an Amateur Dramatic Entertainment at Felixstowe, per C. E. HARDING, Esq.	5	4	0
Balance of proceeds of Life-boat Lecture at Maidenhead, per Col. FITZROY CLAYTON	2	6	0
Proceeds of some Penny Readings at Brightwell, near Ipswich, per R. T. BROCKMAN, Jun., Esq.	1	6	0

—To be severally thanked.

Also that the following Legacies had been bequeathed to the Institution:—

	£	s.	d.
The late Miss DOWNIE, of Appin, N.B., for a Life-boat to be called the <i>Appin</i>	1000	0	0
The late Mrs. HESTER PRATT, of Leamington	100	0	0

	£.	s.	d.
The late Mrs. JANE JAY, of Great Yarmouth	19	19	0
The late Miss A. M. COURTNEY, of Bournemouth	10	0	0

Voted the thanks of the Committee to the Rev. GEORGE PATON and Mr. JOHN SADLER in acknowledgment of their past valuable co-operation as Honorary Secretaries respectively of the Ramsey and Plymouth Branches of the Institution.

Read Letter from the Honorary Secretary of the National Fisheries Exhibition recently held at Norwich, stating that the Institution had been awarded a Gold Medal and Diploma of Honour for the Life-boat and Models sent by it to the Exhibition, and also a Silver Medal for the Model of the Safety Fishing Boat which it had exhibited.—*To be acknowledged.*

Decided that various works be carried out at the St. Anne's, Withernsea, and Robin Hood's Bay Life-boat Stations, at an expense of 687*l.*

Paid 2,258*l.* 1*s.* 1*d.* for sundry charges on various Life-boat establishments.

Voted 8*l.* 10*s.* to pay the expenses of the launch of the Sidmouth Life-boat on the 23rd May, described on page 426.

The Ramsgate and Cadgwith Life-boats had rendered the following services:—

Schooner *Aldebaran*, of Laurvig, Norway, assisted to save vessel and five lives; s.s. *Gervase*, of London, assisted to save vessel and nineteen; schooner *Ellen Vair* assisted to save vessel.

Voted 21*l.* to pay the expenses of the Broadstairs and Lizard Life-boats in putting off to the aid of vessels not ultimately requiring their assistance.

The Ramsgate and Porthleven Life-boats had also been taken out, but their services were not eventually needed.

Voted 5*l.* 5*s.* in aid of a local subscription which was being raised at Brighton on behalf of ABRAHAM YOUNGS, late chief Boatman of the Brighton Branch of the Royal Humane Society, who had been instrumental in saving upwards of one hundred and seventy-two lives from drowning on different occasions.

Also 2*l.* to two fishermen of Staithes, Yorkshire, in acknowledgment of their services in their coble in saving the crew of three men of another coble, which, while making for the beach at Staithes, had broached to and filled on the 28th April.

Also 2*l.* to two fishermen of Cromer, for putting off in a small boat and saving four other men whose boat had been capsized by a heavy sea off that place on the 4th May.

Another 2*l.* to four men for putting off in a pilot-boat and saving two men from another boat which had been capsized near Drogheda Bar, Ireland, during a gale from the S.S.W. on the 5th May.

Also 3*l.* 10*s.* to six men for rushing into the surf and saving two of the crew of the schooner *Margaret Jane*, of Newry, on the occasion of their boat capsizing while they were endeavouring to reach the land during a gale from the N.W. on the 16th May.

THURSDAY, 7th July :

The Chairman of the Institution in the Chair.

Read and approved the minutes of the previous meeting, and those of the Finance and Correspondence, and Wreck and Reward Sub-Committees.

Also the Report of the Chief Inspector of Life-boats on his visits to Whitby, Robin Hood's Bay, Troon, Irvine, Ayr, Ardrossan, Nairn, Fraserburgh, Cruden, Sunderland, Redcar, Saltburn, Staithes, and Runswick.

Also the Reports of the five District Inspectors of Life-boats on their visits to the following Stations:—

1. North Deal, Kingsdowne, Walmer, Ramsgate, Broadstairs, Kingsgate, and Margate.

2. Abersoch, Porthdinllaen, Portmadoc, Bar-mouth, and Aberdovey.

3. Giles' Quay, Blackrock, Drogheda (two Boats), Duncannon, Tramore, Wexford (two Boats), Carnsore, Cahore, Arklow, Courtown, Rogerstown, and Wicklow.

4. Boulmer, Alnmouth, Cresswell, Newbiggin, Blyth (two Boats), Ayr, Troon, Irvine, and Ardrossan.

5. Skegness, Chapel, Sutton, Donna Nook, Theddlethorpe, and Cleethorpes.

Reported the receipt of a contribution of 1000*l.* from Miss LEICESTER, of Bayswater, to defray the cost of a Life-boat Station, the Boat to be named the *Robert and Catherine*.

Decided that the best thanks of the Committee be conveyed to Miss LEICESTER for her munificent gift, and that it be appropriated to the new Life-boat about to be sent to Braunton, North Devon, the Boat being named accordingly.

Also that the following other Special Contributions had been received by the Institution since the last meeting:—

	£.	s.	d.
The Misses BROOKE, sisters of the late JOHN BROOKE, Esq., Q.C., per JOHN RICHARDSON, Esq., Q.C.	100	0	0
Ditto, in aid of Irish Life-boat Stations, additional	100	0	0
Miss ELIZABETH LOUISA CAREW, West Brighton	100	0	0
Battersea Chapel Sunday School Benevolent Society, per Mr. C. SHEPHERD, annual subscription	1	1	0
—To be severally thanked.			

Reported that the following Legacies had been left to the Institution:—

	£.	s.	d.
The late Mrs. MARY ANN COBB, of Jersey	1621	15	9
The late C. R. CRADDOCK, Esq., of St. John's Wood (duty free).	100	0	0
The late J. D. BROWN, Esq., of Lyndon, Rutland	10	0	0

Decided that the new Life-boat about to be sent by the Institution to Rye, Sussex, be appropriated to the legacy bequeathed to the Institution by the late JOHN STANFORD, Esq., of Regent's Park, for the purpose of placing and maintaining on the coast a Life-boat to be named the *Mary Stanford*, as a permanent memorial in honour of his late mother.

Read letter from Capt. BRAINE, Harbour Master at Ramsgate, of the 24th June, stating that he was about to retire from that post, and the Hon. Secretaryship of the Institution at that port.

Decided that the expression of the best thanks of the Committee be conveyed to Capt. BRAINE, accompanied by a model of the Ramsgate Life-boat, and another testimonial, in recognition of his long and most valuable services in connection with the Life-boat work.

Also that the thanks of the Institution be given to J. PATERSON, Esq., and E. HAIN, Jun., Esq., in acknowledgment of their past kind co-operation in the management of the Isle of Arran and St. Ives Branches of the Society.

Paid 3,983*l.* 3*s.* 4*d.* for sundry charges on various Life-boat establishments.

Voted 20*l.* 16*s.* to pay the expenses of the Life-boats at Seaham and Lossiemouth, in rendering the following services:—

	Lives Saved.
S.S. <i>Norman</i> , of London	11
Schooner <i>Cavalier</i> , of Lossiemouth	5

The Caister No. 2 and Staithes Life-boats had also rendered the following services:—

Barque *Alecto*, of Malta. Remained by vessel. Fishing-cobles. Rendered assistance.

Voted 13*l.* 8*s.* 3*d.* to pay the expenses of the Life-boat at Rye, Sussex, in putting off to the aid of a vessel which did not eventually require her assistance.

Voted 1*l.* to GEORGE CORMACK, son of the master of the fishing lugger *Margaret*, No. 192, of Wick, for saving one of the crew of that vessel, who had been washed overboard by a heavy sea in the Pentland Firth during a W. gale on the 7th May.

THURSDAY, 4th August.

The Chairman of the Institution in the Chair.

Read and approved the Minutes of the previous Meeting, and those of the Finance and Correspondence, and Wreck and Reward Sub-Committees.

Also the Report of the Chief Inspector on his visits to Yarmouth, Gorleston, Hasborough, Bacton, and Mundesley.

Also the Reports of the five District Inspectors of Life-boats on their visits to the following Stations:—

1. Plymouth, Yealm River, Salcombe, Hope Cove, Brixham, Dartmouth, Torquay, Teignmouth, Exmouth, Sidmouth, and Lyme Regis.

2. Penarth, Porthcawl, Swansea, Pembrey, Ferryside, Tenby, Milford Haven, St. David's, Solva, Fishguard (two Boats), Cardigan, Newquay, Aberystwith, and Watchet.

3. Greystones, Poolbeg, Kingstown, Newcastle, Groomsport, and Ballywalter.

4. Tynemouth (two Boats), Cullercoats, and Hauxley.

5. Sunderland (four Boats), Whitburn, and Seaham.

Reported the receipt of a contribution of 800*l.* from Mrs. ELLIS, of Harrogate, for the purpose of placing a Life-boat on the Yorkshire coast,

in memory of her late husband, the Rev. ROBERT ELLIS, of North Grimston.

Decided that the thanks of the Committee be presented to Mrs. ELLIS for her munificent gift, and that it be appropriated to the new Life-boat about to be sent to Whitby.

Reported also the receipt of the following other Special Contributions since the last meeting:—

	£.	s.	d.
Ancient Order of Foresters, annual subscription in aid of the support of their two Life-boats, per SAMUEL SHAWCROSS, Esq.	100	0	0
Worshipful Company of Drapers, annual subscription	31	10	0
A. HUTCHINSON, Esq., and the Misses CHARLOTTE and FANNY HUTCHINSON, additional	25	0	0
Worshipful Company of Cloth-workers, additional	21	0	0

—To be severally thanked.

Also that the following Legacies had been bequeathed to the Institution:—

	£.	s.	d.
The late "T. J. M."	400	0	0
The late Mr. E. C. McMASTER	12	10	0

The Committee expressed their deep regret at the decease of Lord HATHERLEY, who had long been a liberal contributor to the funds of the Institution, was one of its Vice-Presidents, and had always taken a warm interest in its welfare.

Voted the thanks of the Committee to M. MURRAY, Esq., and R. S. JAMES, Esq., in acknowledgment of their past kind co-operation as Honorary Secretaries, respectively, of the Tees Bay and Porthleven Branches of the Institution.

Reported the transmission to their Stations of the new Life-boats for Newcastle (Dundrum Bay) and Cemaes, Anglesey.

Read letter from Mrs. M. TATE, of Cronstadt, of the 22nd July, stating that her son, Mr. E. P. TATE, had engraved a portrait of the late Emperor Alexander the Second of Russia, and that he placed the Plate at the disposal of the NATIONAL LIFE-BOAT INSTITUTION.—To be accepted, with thanks.

Paid 1,523*l.* 2*s.* 6*d.* for sundry charges on various Life-boat establishments.

Voted 7*l.* 15*s.* to pay the expenses of the Howth Life-boat in saving a disabled pleasure boat, containing four men, during a strong gale on the 24th July.

Also 9*l.* to pay the expenses of the Life-boat at Broadstairs in putting off to the aid of the Norwegian barque *Christine*, which had stranded on the Goodwin Sands, but which did not ultimately require her assistance.

Also 2*l.* to three men for putting off in a yawl and saving five persons from a boat which had been swamped in Burial Sound, Co. Down, during squally weather on the 13th July.

Also 1*l.* to four men for helping to save three boys whose boat had been capsized at Poole, Dorset, during squally weather on the 6th July.

Also 1*l.* to three men for putting off in a boat and saving a boy from a boat which had drifted out to sea off Ballygeary, Co. Wexford, during squally weather on the 10th July.

THE LATE GEORGE LYALL, Esq.

WE deeply lament to record the death of Mr. LYALL, the much-respected Deputy-Chairman of the NATIONAL LIFE-BOAT INSTITUTION, which event took place on the 12th October.

Mr. LYALL was the son of the late Mr. GEORGE LYALL, at one time M.P. for the City of London. He, in conjunction with the late Mr. THOMAS WILSON, took an active part in the formation of the Institution in 1824; for we find that at a public meeting held for that purpose at the City of London Tavern, on the 4th March of that year, His Grace, the then Archbishop of Canterbury (Dr. MANNERS SUTTON) in the chair—

Mr. LYALL moved the following resolution, which was seconded by Mr. THOMAS WILSON, the then M.P. for London:—

"That the best thanks of this meeting are due to Sir WILLIAM HILLARY, Bart., for his patriotic efforts in bringing this subject before the public, and for his zealous endeavours to promote the establishment of this Institution."

The son, like the father, was ever ready to promote the welfare of the Institution, and never ceased to regard its increased usefulness with undiminished interest.

He always, when practicable, attended the meetings of the Committee, and usually spoke with considerable force and earnestness at the Annual Meetings of the Institution.

Mr. LYALL, who was in his sixty-third year, was educated at Winchester and Geneva, and ever held the highest commercial position since he attained his majority.

He was a Magistrate for Surrey, a Commissioner of Lieutenancy for London, and a Governor of Christ's Hospital; he was also a Director and late Governor of the Bank of England. Mr. LYALL sat in the House of Commons as Member for Whitehaven from 1857 till 1865. During this period he aided in forming a Life-boat station at Whitehaven. He was twice married—first in 1845 to Eleanor Harriet, only child of the Rev. John Manley; and, secondly, in 1855 to Frances, daughter of Mr. Daniel Cave, of Cleve Hill, Gloucestershire, and sister of the late Right Honourable Sir Stephen Cave.

A NOBLE ACT.

AMONGST the many noble deeds of heroism by our Life-boats' crews and others during the recent fearful gale, perhaps none is more deserving of being held up for public admiration and sympathy than that of the Captain of the s.s. *Cyprian*, lost on the 14th October, on the south shore of Carnarvon Bay, near Porth Nevin.

The *Cyprian*, commanded by Captain JOHN ALEX. STRACHAN, left Liverpool on Thursday, the 13th October, for the Mediterranean; she immediately encountered a heavy gale, which gradually increased to a perfect hurricane, and on the following day, after having all her steering gear carried away and one boiler tube having burst, she became unmanageable and was driven ashore on the Carnarvonshire coast at the spot above indicated. Her destruction was then so rapid and the position into which the ship was driven such that the nearest Life-boat, stationed at Porthdinllaen, could not possibly render any aid to her unfortunate crew.

There were on board her twenty-eight persons, including a poor lad, a "stow-away," as it is termed, one of the numberless "waifs and strays" of Liverpool, who had concealed himself below amongst the cargo, no doubt hoping somehow or other to better his condition, and ready, in order to do so, to encounter any punishment that might be meted to him when discovered on board. Before the ship striking, what life-belts were on board were distributed amongst the crew, one being reserved for Captain STRACHAN. One after another the crew had plunged into the boiling surf, to be hurled by it to the shore, as affording the only chance of saving their lives. The noble captain remained to the last, and was about to follow the example of the others, when, seeing the poor trembling, frightened lad, who was but an intruder in his ship, he placed the life-belt intended for himself securely around him, bidding him leap into the sea, and he himself following without a life-belt. The poor lad was carried safely to the shore; the noble-hearted man was drowned, together with nineteen of his crew, eight only being saved. If, as the Great Master has said, "Whosoever shall give to drink unto one of these little ones a cup of cold water only in the name of a disciple, verily I say unto you he shall

in no wise lose his reward," how much more may we well feel sure that this brave soul, who unhesitatingly gave his life for this poor friendless lad, has met with his reward?

LIFE-BOAT SERVICES.—During the late October storms the Life-boats belonging to the NATIONAL LIFE-BOAT INSTITUTION were successful in saving the lives of many persons on board shipwrecked and foundering vessels. The Pembrey (South Wales) Life-boat rescued seven men from the steamship *Laura Fell*. The Padstow Life-boat *Albert Edward* saved the crew of three men and a boy from the schooner *Favorite*, driven on the Doom Bar Sand. The Aldborough Life-boat assisted to rescue the schooner *Equity*, of Boston, and her crew. The Ramsay (Isle of Man) Life-boat rescued the crew of four men of the schooner *Eulala*, of Dumfries. The Kes-singland Life-boat saved the crew of eight men of the brig *Maria*, of Hartlepool. The Burnham (Somerset) Life-boat saved the crew of three men from the rigging of the smack *Neath Trader*, of Newport. The *Boys of England* Life-boat, of Southend, saved four men from two small vessels which were in a sinking condition. The Holyhead Life-boat saved a crew of four men from the schooner *Golden Island*, of Belfast, which was also in a most perilous condition. The Newbiggin Life-boat saved the crew of four men of the steamer *Northumberland*. The Torquay Life-boat *Mary Brundret* rescued the fishing-smack *Black Cat*, and her crew of two men. The Bembridge Life-boat rendered assistance to the distressed brigantine *Skold*, of Christiansund. The Ramsgate and Deal Life-boats saved thirty-two men from the ship *Ganges*, wrecked on the Goodwin Sands. The Winterton No. 2 Life-boat rescued the crew of four men belonging to the ketch *Time*, of Goole. The Clacton Life-boat helped to save the distressed schooner *Ocean*, of Goole, and her crew of four men. At Porthdinllaen, North Wales, the *George Moore* Life-boat saved the crew of four men belonging to a screw flat named the *Tal-y-fan*. The Groomsport (Co. Down) Life-boat rescued the crew of fifteen men belonging to the barque *Margaret*, of Belfast, which was driven ashore in Bangor Bay. The *Lady Vivian* Life-boat, of Moelfre, Anglesea, rescued four men, the crew of a fishing-boat belonging to Red Wharf. The Life-boat at Portmadoc, Carnarvonshire, rescued the crew of the schooner *Brenton*, of Fowey, and assisted to save their vessel. The Penarth Life-boat, assisted to save the distressed barque *Fabo*, of Genoa, and her crew of fourteen men. The Ballywalter Life-boat saved, with much difficulty, the crew of two men from an endangered fishing-smack. The Buckie (N.B.) Life-boat saved the crew of four men from the schooner *Equestrian*, of Banff, which drifted ashore at Port Gordon. Altogether the Life-boats were instrumental during the October gales in saving one hundred and thirty-one lives from different shipwrecks, besides helping to rescue six vessels from destruction.

ROYAL NATIONAL LIFE-BOAT INSTITUTION.

SUPPORTED SOLELY BY VOLUNTARY CONTRIBUTIONS.

Patroness—Her Most Gracious Majesty the Queen.

President—HIS GRACE THE DUKE OF NORTHUMBERLAND, P.C., D.C.L.

Chairman—THOMAS CHAPMAN, Esq., F.R.S., V.P.

Secretary—RICHARD LEWIS, of the Inner Temple, Esq., Barrister-at-Law.

Services of the Life-boats of the Institution in 1881 (to 20th Oct.).

<i>Agnes</i> , schooner, of Llanelly	5	<i>Fishguard Lass</i> , smack, of Aber- soch	3	<i>Neath Trader</i> , smack, of Newport	3
<i>Aldebaran</i> , schooner, of Laurvig —assisted to save vessel and ..	5	<i>Fraserburgh</i> fishing boats—ren- dered assistance.		<i>Neilly</i> , barquentine, of Bridgwater —saved vessel and	6
<i>Alecto</i> , barque, of Malta—re- mained by vessel.		<i>Ganges</i> , ship, of London	32	<i>Niels</i> , Swedish schooner	5
<i>Angostura</i> , barque, of Hamburg —saved vessel and	17	<i>George and Mary</i> , schooner, of Barrow	5	<i>Norma</i> , s.s., of Bergen	11
<i>Annie Marie</i> , schooner, of Kra- geroe	3	<i>Georgina</i> , brigantine, of Portma- doc	5	<i>Norman</i> , s.s., of London	11
<i>Attila</i> , ship, of Newcastle—ren- dered assistance.		<i>Gertrude</i> , barque, of Liverpool ..	13	<i>North Wales</i> , barque, of London	21
<i>August</i> , brig, of Barth	7	<i>Gertrase</i> , s.s., of London—assisted to save vessel and	19	<i>Northumberland</i> , s.s., of New- castle	4
<i>Ballywatter</i> , fishing boat	2	<i>Golden Island</i> , schooner, of Bel- fast	4	<i>Ocean</i> , schooner, of Goole, assisted to save vessel and	4
<i>Bell</i> , buoy boat, Ballywatter, saved boat.		<i>Grasshopper</i> , schooner, of South- ampton	6	<i>Oscar</i> , schooner, of Leith	7
<i>Bertha</i> , brigantine, of Rye	6	<i>Gyda</i> , brig, of Swendsall	4	<i>Peace</i> , dandy, of Lowestoft— saved vessel and	5
<i>Berwick-on-Tweed</i> fishing boats, saved two boats and	9	<i>Harmonie</i> , schooner, of Mandel ..	5	<i>Queen of the Usk</i> , brigantine, of Whitehaven	5
<i>Bessie Whinery</i> , brigantine, of Maryport—saved vessel and...	6	<i>Hasselo</i> , brigantine, of Haguesund	8	<i>Ranee</i> , s.s., of Bristol	5
<i>Black Cat</i> , fishing smack—saved vessel and	2	<i>Holy Island</i> fishing cobsles—ren- dered assistance.		<i>Red Wharf</i> , fishing boat of	4
<i>Blue Jacket</i> , schooner, of Beau- maris, saved vessel and	3	<i>Houth</i> , pleasure boat—saved boat and	4	<i>Rosa Josephs</i> , schooner, of St. Vaast	5
<i>Bransty</i> , brigantine, of White- haven	4	<i>Indian Chief</i> , ship, of Liverpool ..	12	<i>Rosita</i> , Spanish schooner	11
<i>Brazilian</i> , s.s., of Barrow—ren- dered assistance.		<i>Ingerid</i> , Dutch s.s.	7	<i>Ruby</i> , sloop, of Goole—assisted to save vessel and	2
<i>Brenton</i> , schooner, of Fowey— assisted to save vessel and	4	<i>John Green</i> , schooner, of Drogheda	5	<i>Runswick</i> fishing cobsles—rendered assistance.	
<i>Bristol Packet</i> , ketch, of Newport, Mon.—remained by vessel.		<i>John Wesley</i> , brigantine, of Seaham	5	<i>Shamrock</i> , dandy, of Hull	5
<i>Brixham</i> pilot gig—remained alongside.		<i>Julie Tasche</i> , brigantine—assisted to save vessel.		<i>Skold</i> , brigantine, of Christiansund —rendered assistance.	
<i>Broomhill</i> , s.s., of Dundee	19	<i>Jupiter</i> , barque, of Liverpool	18	<i>Sophia Holten</i> , dandy, of Ply- mouth	2
<i>Brothers</i> , ketch, Tenby	4	<i>Kyanite</i> , schooner, of Guernsey— assisted to save vessel and	7	<i>Staithe</i> s fishing cobsles—rendered assistance.	
<i>Butcher</i> barge, of Rochester	2	<i>Laura Fell</i> , s.s., of London	7	<i>Star of Peace</i> , fishing boat, of Montrose—assisted to save ves- sel and	6
<i>Castlemaine</i> , ship, of Liverpool ..	25	<i>Lina</i> , brigantine, of Aland	8	<i>Stratheden</i> , barque, of Dundee ..	12
<i>Catherine</i> , smack, of Ramsgate ..	5	<i>Lion</i> , ketch, of Exeter	1	<i>Tal-y-fan</i> screwboat, of Liverpool	4
<i>Cavalier</i> , schooner, of Lossie- mouth	5	<i>Lively</i> , fishing coble, of Redcar ..	2	<i>Teignmouth</i> fishing boats—saved two boats and	2
<i>Claremont</i> , steamer, of Newcastle Cruden fishing boats—rendered assistance.	6	<i>Lizzie</i> , ketch, of Bridgwater	4	<i>Thomas</i> , ketch, of Lynn	3
<i>Cullercoats</i> fishing coble—ren- dered assistance.		<i>Ludworth</i> , s.s., of London	8	<i>Time</i> , ketch, of Goole	4
<i>Danube</i> , brigantine, of Guernsey —remained by vessel.		<i>MacDuff</i> , ship, of Glasgow—ren- dered assistance.		<i>Trafalgar</i> , s.s., of London	23
<i>Dayspring</i> , brigantine, of Liver- pool	1	<i>Magdalen</i> , fishing boat, of Mont- rose	6	<i>Triton</i> , dandy, of Yarmouth— assisted to save vessel and	6
<i>Eliza Emma</i> , brig, of Shoreham ..	6	<i>Manne de Ciel</i> , French ketch ..	4	<i>Udea</i> , s.s., of Llanelly	10
<i>Elen Vair</i> , schooner, assisted to save vessel.		<i>Margaret</i> , barque, of Belfast	15	<i>Visitor</i> , Brig, of Whitby	6
<i>Equestrian</i> , schooner, of Banff ..	4	<i>Maria</i> , barge, of Rochester	2	<i>William</i> , schooner, of Liverpool ..	6
<i>Equity</i> , schooner, of Boston— assisted to save vessel and	4	<i>Maria</i> , brig, of Hartlepool	8	<i>Yorkshire Lass</i> , ketch, of Boston	3
<i>Eulala</i> , schooner, of Dumfries ..	4	<i>Marmora</i> , barque, of Copenhagen	8	<i>Zipporah</i> , schooner, of Scarborough	2
<i>Favorite</i> , schooner, of Quimper ..	4	<i>Mary Cook</i> , smack, of Campbell- town	2		
<i>Felo</i> , barque, of Genoa—assisted to save vessel and	14	<i>Mary Stuart</i> , barque—rendered assistance.			
		<i>Matilda</i> , brig, of Gothenberg— rendered assistance.			
		<i>Matilda Hilyard</i> , barque, of Greenock—rendered assistance.			
		<i>Minnie Coles</i> , schooner, of South- ampton—assisted to save vessel and	5		
		<i>Mischief</i> , schooner, of Rye	4		
		<i>Miss Beck</i> , schooner, of Carnarvon	5		

Total lives saved by Life-boats, in
1881 (to 20th Oct.), in addition
to Twenty-five vessels 630

During the same period the Insti-
tution granted rewards for saving
lives by fishing and other boats 123

Total of lives saved }
in 1881 (to 20th Oct.) } 753

The number of lives saved either by the Life-boats of the Institution, or by special exertions for which it has granted rewards, since its formation, is £28,350; for which services 95 Gold Medals, 935 Silver Medals and £67,000 in cash have been granted as rewards.

The average expense of a Life-boat Station is £1,000. Its cost for a 10-oared boat is made up as follows:—
Life-boat and her equipment, including Life-Belts for the crew, and Transporting-carriage for the Life-boat . £850
Boat-house (average cost) 350

Total £1,000

The average annual expense of maintaining a Life-boat Station is £70.

Donations and Annual Subscriptions are thankfully received by the Bankers of the Institution, Messrs. COUTTS AND CO., 59 Strand; Messrs. HERBES, FARQUHAR, AND CO., 16 St. James's Street; Messrs. HOARE, 37 Fleet Street, London; by all the other Bankers in the United Kingdom; by all the Life-boat Branches; and by the Secretary at the Institution, 14 JOHN STREET, ADELPHI, London, W.C.—1st November. 1881.