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FORECASTS OF WEATHER.

By VICE-ADMIRAL R. FITZ-ROY, F.R.S.

THE Life-Boat Journal having aided practical meteorology, the following memorandum, as a general answer to numerous observations and questions, may interest its readers : and as the public pay for what is effected in our international meteorologic telegraphy, all have a claim to "know the reason why."

"FORECASTS OF WEATHER.

"Many persons have asked questions about forecasts of weather and their principles. Some have impugned their accuracy, and a few have demurred to their having any claim to a really scientific basis.

"No doubt that as very different views of atmospheric commotions or changes are taken by able men, such subjects may scarcely seem worth their earnest attention, because as yet they have not been brought to the verification of a rigid mathematical analysis.

"But to metaphysical inquiries, and to other researches or avocations, indispensably useful, one might take objection, and decline their study on similar grounds. Meteorology not only abounds in physical facts, excessively useful as well as interesting, but it demands an extensive range of intellectual and extremely comprehensive considerations.

"One cannot take it into full use without due study; yet who is there without an independent opinion of the weather, and perhaps too little understood barometric indications?

"Having ascertained that the principal atmospheric currents are incessantly in more or less circuitous but mutually opposed progress, sometimes side by side but in contrary directions, sometimes superposed, one or other being nearest the earth's surface, temporarily—and always having *lateral* as well as direct progression, we have a clue to their dynametry—by observations at distant stations and by telegraphing to a centre, somewhat like that which might be given in a tidal estuary to an observer at a fixed station, by ships swinging in advancing or receding tide-streams.

"By the tension or barometric pressure, the temperature and other characteristics of the air at

each station—by the approximate knowledge now possessed of the set, turn, or progression of atmospheric currents—of their relative breadth horizontally, and of the circuitous eddies usually, or often, between their edges or boundaries—one may tell what conditions of air exist within some hundred miles around—say a sweep of 500 miles from London (as a centre), and, which is of far more value, what changes or movements are impending.

"The capability of doing this for about two days in advance rests on the proved fact of a general lateral translation toward the east in the Temperate Zone, while northerly, southerly, or other (mixed) currents of air are in very various movement, the practical results on the earth's surface being usually composite motions.

"By thus considering the atmospheric area above, around, and within some hundred miles of us, by statical observations at the same hour, and by summary calculations of a dynamic character, all the principal motions and changes are brought within the grasp of forecast.

"But this applies only to general and principal averages, not to local peculiarities or special disturbances so limited in nature that they do not affect more than a few score miles' expanse of atmosphere.

"It ought to be kept in mind that broad shallow currents are the chief aërial features, below or between or among which there can be no vacancy, unless momentarily, as when a violent blast of wind is caused by a sudden (approximate) vacuum; and that when currents act against each other (gravity restraining upward motion) their tendency is to cause more or less rotation.

"The lamented ESPY said that winds always set from the place of higher barometer toward that of lower, but he also said (which some writers seem to have overlooked) that the meeting of such winds causes a circuitous effect. ESPY's views accord with those of the authoritative Dove and our illustrious HERSCHEL.

"The word cyclone has been so associated with storm that few persons attach to it now the simple and ancient sense of circuit or circuitous.

"Without duly following the progress and ultimate destination of material fluid, air having great bulk, infinite elasticity, and more or less vis *inertiæ*, or rather momentum, according to mechanical laws, some persons have imagined that

air-currents intermix, as if unresistingly, instead of opposing each other for a time, especially if in rapid motion, just like currents of water in a river or in the sea.

"Air-streams in opposition must deflect or turn each other, or go upward (against gravitation).

"Without a general, lateral, or transmeridional movement, or translation of atmosphere—toward the east in the temperate zones, but westward in the intertropical regions—in addition to meridional movements from and toward the poles (of which full explanations are given elsewhere), it would not be possible to forecast the character of wind and weather beyond one day's interval. It is the prescience of dynamic consequences, arising out of statical facts, that enables a really scientific calculation of probabilities to be made. Certainty is not yet attainable; but a fair average probability, for a certain area or district, is already within our reach. Out of these forecasts spring the cautionary notices of impending storms.

"It is by a continuous observation of the changes and indications of change that we are now enabled to decide and direct with confidence.

"Without such a generally-informed state we should often be surprised, as we should derive our warnings solely from distant stations, and should not be able as now frequently to warn even outposts, such as Nairn, Valentia, or Rochefort.

"That errors have occurred—that we have been too slow, or have given warning where it seemed to have been unnecessary—may appear to have been unavoidable in such new and tentative experiments.

"But there have been four special causes of occasional failure which ought to be fairly considered.

"1. A watch having been officially set to report on the results of each cautionary signal, has somewhat discouraged such speedy action as might otherwise have been taken in signalling, lest a record of their inutility should be compiled, rather than the contrary.

"2. Public offices are not open on Sundays, and only a few principal telegraph stations are then available. Hence there is sometimes unavoidable delay between Saturday and Monday.

"3. No one or two persons can be always at their station all the year round from morning to night. The new subject of forecasting and warning is hardly yet so familiar to many persons, however zealous, as it may be in due time.

"Lastly, the telegraph offices are not open in general till 8 or 9 in the morning, or after those hours at night; therefore official communications are only practicable, over so wide a range as ours, between those times of the day.

"To communicate between Nairn or Valentia or Rochefort and our office in London usually takes about two hours, in actual practice.

"For proofs of what has been thus stated, perhaps too dogmatically, about the movements of aircurrents and their lateral translation, I would suggest a general reference to various publications, except for one recent and very remarkable instance.

"During the storm of last October 29-30, such remarkably sudden and violent shifts of wind took place about the same time at many places in a nearly meridional direction across England, between or by Oxford, Greenwich, Nottingham, and other places, that even to meteorologists they seemed unaccountable; but if we contemplate parallel currents, side by side, moving rapidly in opposite directions, and having also a lateral movement to the eastward, such sudden and meridional changes may become as easy to comprehend as those so well described by aeronauts, who passed out of one stratum or current of air into another, so closely superposed that while the balloon was tilted (dragged aside as it were) by the one, the car was affected differently by the other.

"This momentary effect was accompanied by a rushing sound like that of a torrent of water. These currents had different temperatures, electric characters, degrees of dryness or moisture, and horizontal motions. (The sound, caused by pressure and friction, is suggestive of varions ideas in connection with heat and electric considerations, inadmissible here.)

"In this case, of course, the representative of an observatory moved vertically through horizontal air-currents, at times differing in velocity (referred to earth's surface) from some 30 to 60 miles an hour. In the former instance—that of a land station—the currents were separated vertically, their division passing across any place suddenly, but horizontally.

"At the present time our meteorologic communications are utilized, and highly appreciated on the Continent.

"At about 10 o'clock in the morning (as soon as in London), Paris receives notices of wind and weather from our most distant stations, and distributes them. Near the same time we receive telegrams at this office from three French coast stations—Brest, Lorient, and Rochefort; being all that we can utilize.

"Two hours afterwards the French Government despatches our forecasts, and (if any) cautionary notices to more than 18 stations on the coasts of France.

"This British system has, therefore, incurred a large responsibility.

"What does it cost? is, of course a frequent question.

"The Meteorologic Office of the Board of Trade, and for the Admiralty likewise, was established in 1855, with a yearly estimate of 4,200*l*.

"This was for many duties, exclusive of those now superadded, not then contemplated.

"To include and provide for all—with these additional objects, and their contingent expenses—I now ask to have 5,800!., being only 1,600!. more than in 1855-58 when meteorologic investigations had not led to their practical utilization nationally.

"In conclusion, may I be permitted to say that, while admitting many errors of judgment and numerous instances of tardy decision, it has been proved by general opinion of the maritime, if not also of the agricultural, interests that the system of meteorologic information existing now under the Board of Trade is worth its cost to the nation, and is deserving of efficient maintenance.

"R. FITZ-ROY.

THE LIFE-BOAT.

Postscript.—Having been asked to send out forecasts, and occasional cautionary notices to the wider Midland districts, I am anxious to say that such detailed definitions seem hardly requisite, as they could not be given for highlands and valleys, exposed districts, and sheltered places alike.

Fair comparisons of the daily weather reports or notices for those coasts which are *nearest* to any such inland place—especially those to the *westward*—and due consideration of the reports immediately preceding the time of observation, or expected, as *probable* to occur during next day, or on that to follow it—may give better information than a special forecast—not duly estimating local peculiarities.

The whole area of the British Islands is so small, comparatively, that changes over them may be better estimated comprehensively, on a wide scale (having especial reference to principal upper, or cloud-bearing currents), rather than to local effects in confined, or very limited districts.

R.F.

RESTORATION

OF THE APPARENTLY DROWNED.

WE have much pleasure in publishing the following letter from Dr. PAGET-BLAKE, of Torquay, which shows the importance of retaining in the new Directions of the ROYAL NATIONAL LIFE-BOAT INSTITUTION a portion of Dr. MARSHALL HALL'S valuable method for the Restoration of the Apparently dead from drowning :---

"Anglesey House, Torquay, "July 1st, 1864.

"Sig,—As an old Subscriber and warm admirer of your most valuable Institution, I beg to address you on the subject of the first article of your 'Life-boat,' which I received this morning. Being a medical man in practice here, I think I ought to add my mite, however small, to help you in your search after what, by weight of evidence, must eventually influence you in your laudable endeavour to discover what is the best plan of restoring persons apparently drowned.

"I was walking leisurely along Victoria Parade here about a week ago, when I saw a crowd collecting on the pier-head, round a pleasure-boat, which had just come in. Anxious to know what was the cause, I proceeded down towards the crowd, and there found the body of a gentleman's servant laid on two planks, apparently quite dead. I asked, 'What is the matter?'--'Oh, sir, he has fallen overboard, and was ten minutes in the water before we could pick him up, and then got hold of him with a boat-hook, pulled him on board, and brought him here; but we fear he's dead, for this was some distance out near Paignton!'

"I waited not a moment, but pushing through the crowd, I got to the body, and securing in an instant the help of three powerful men, to do as I bid them, I proceeded, without even taking off my gloves (they fitting very tightly, and so urgent was the necessity for haste), to use the 'Marshall Hall method ' for restoring respiration. We kept regularly and steadily at it for ten minutes or a quarter of an hour ere there was the least apparent consciousness, and being a very stout, heavy man, this was really hard work : then there was a long-drawn gasp. We continued 'the method,' and in half-an-hour were rejoiced to find natural respiration restored. Then we took off the remainder of his wet things, and rubbed vigorously, giving also brandy-and-water, which he could now swallow; and as soon as some warmth was felt, we put him into a carriage and sent him home. The result has been that in four days he was at his usual occupation. On looking at his watch, I found it had stopped at the very time (half-past four) he had fallen into the water.

"Having also had several cases of apparently still-born children brought to animation and life by this most admirable and thoroughly physiological plan of proceeding, I think it only due to the memory of that truly illustrious member of our profession to add my humble testimony in favour of the 'Marshall Hall method,' which is to my mind unhesitatingly the best ever yet proposed.

"The man's watch being stopped, proved he must have been a considerable time in the water. He could swim a very little; but says that the waves were so high and the wind so strong he was soon overpowered after a few strokes, and he does not recollect any more.

"I am, &c.,

"C. PAGET BLAKE, M.D., Edin.; M.R.C.P. Lond. "To the Secretary

of the National Life-boat Institution."

OUR MERCHANT SEAMEN.

THE Committee of the Shipwrecked Fishermen and Mariners' Society have published the following additional appeal on behalf of the establishment of an Asylum or Hospital, for aged Mariners at Belvedere, near Gravesend. A commodious house has already been secured for this laudable undertaking; and its support and permanent establishment is now earnestly sought for by the Committee. We trust that their object will be speedily accomplished; for our disabled and

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worn-out seamen have special claims on a great maritime and mercantile country like England :----

"A few years since, the Committee of the Shipwrecked Mariners' Society promoted a meeting, held at the Mansion-house, the LORD MAYOR in the Chair, for the purpose of establishing a hospital for worn-out and disabled merchant seamen, who had no other place of refuge but the workhouse. The meeting, at which there were at least 600 persons present, was unanimous that such an asylum ought to be provided. The reasons given in the resolution were these :- First, That a body of men, unto whose care and courage are intrusted the most important interests of the empire, ought to be viewed and treated as the servants of the community, and cared for as such. Second-That by such means they may be more bound to their country, for the defence of which, in time of need, they are necessary to its independent existence as a nation. Third-That they may be raised in self-esteem by being preserved from pauperism; and, it may be hoped, a moral improvement of their character be gradually effected.

"The provisional Committee for carrying out the resolutions of the public meeting at the Mansion-house, encouraged by the general approval with which the proposition was received, and reckoning that it would be sustained by the shipowners, merchants, and public at large, as well as by the officers and seamen of the merchant service, have now secured the freehold of the mansion of the late SIR CULLING EARDLEY, Bart., at Belvedere, with 23 acres of land. The building contains 65 rooms, with abundant offices, and is admirably capable of being adapted so as to form a splendid retreat for our worn-out tars, both officers (if they need) and men. It stands on a summit of a hill, commanding a view of the Thames on the north, east, and west, with a railway station at its foot; and though, of course, not equal to Greenwich in the magnitude of the building, it is far superior in situation, with land enough about it to make it anything the bounty of the public may please.

"The Committee, noticing a leader in the *Times* remarking on the speech of Mr. Childers, in the House of Commons, and learning that it and the memorandum of the DUKE OF SOMERSET on the affairs of Greenwich Hospital had led many persons to suppose that there was a probability of a part of that building being given to the merchant seamen, sought and obtained an interview with His Grace, to know if such a probability existed. He distinctly denied it, and expressed himself glad of the provision contemplated by the deputation, saying that he 'considered it important to keep the provision for the Merchant Seamen distinct from that of the seamen of the Royal Navy.'

"Though the DUKE OF SOMERSET'S reply was emphatic, nevertheless there were a number of influential gentlemen in the City, interested in the welfare of our merchant seamen, who, notwithstanding the report of the Duke's reply, put forth by the deputation, published in most of the morning papers, could not divest themselves of the thought that the spare buildings of Greenwich Hospital might yet be given to shelter worn-out and disabled merchant seamen.

"In order, therefore, to set the matter at rest, the question was publicly put by Mr. Crawford. one of the members for the City of London, in the House of Commons, to the Secretary of the Admiralty, 'whether it was the intention of the Lords Commissioners to appropriate any portion of Greenwich Hospital for the reception of worn-out and disabled seamen of the merchant service?' LORD CLARENCE PAGET said, 'It was not the intention of the Admiralty to appropriate any part of Greenwich Hospital for the purpose.' The reply of his Grace the First Lord of the Admiralty to the deputation before alluded to, which of course being in a measure private was subject to the suspicion of misrepresentation, being now confirmed in public by the reply of the Secretary of the Admiralty, it is to be hoped has set at rest the minds of those who may have had the lingering idea that merchant seamen might yet have a berth in Greenwich in their old age.

"There is, however, still a hope that the merchant seamen, if they do not get anything out of the building, may yet get something out of the funds by which it has hitherto been maintained, and this hope has its foundation in the published memorandum on Greenwich Hospital of the DUKE OF SOMERSET, wherein he states, that the 'surplus funds' of that establishment will be distributed ' with a due regard to the claims of those persons who have contributed to the revenues of the hospital;' and as the merchant seamen for a series of years prior to 1832 subscribed 6d. per man per month, or in the aggregate 30,000l. per annum in round numbers; and as the men who then subscribed are the very men who, from their age, it is now sought to save from the workhouse by giving them an honourable retreat at Belvedere, the provisional Committee is of opinion, if the movement now set on foot is supported so as to give it a proper status, that, under the circumstances, an endowment in proportion to the number (500) it is proposed to locate on the banks of the Thames may fairly be asked for and pressed as a set-off to the claims of the merchant seamen, which have been often urged both in and out of Parliament.

" By a return ordered by the House of Commons seven years since, on the motion of the late Admiral Sir Charles Napier, there were then 2,000 seamen in the workhouses of the United Kingdom. Taking into consideration the great increase of tonnage since that return was made, and that, consequently, a greater number of seamen must be employed, it may be estimated there are now 2,500; if so, as it is only proposed that Belvedere should receive 500, there will be 2,000 to be provided for in similar establishments, which we may hope to see raised at Liverpool and other ports, and thus give opportunity to provide for the men in their own localities. Meantime, Belvedere will be open to all seamen of good character, natives of the United Kingdom, who may have served 21 years in British vessels, or previously, if disabled in the merchant service of their country.

mired, and gave every satisfaction to her The life-boat and carriage were liberally conveyed to Dover, free of charge,

subject of a provision for our merchant seamen crew. in old age, or when disabled from labour by some of the various accidents common to their perilous by the South-Eastern Railway Company. calling, exercises the minds both of statesmen and philanthropists, of which the recent speech of the EARL OF HARROWBY in the House of Lords may be taken as an index. That a country so famous for its institutions, and so dependent on its maritime power, should have no provision for its merchant seamen, while there is, perhaps, not another nation which has any pretence to be maritime but has, is something remarkable. Of old, DIB-DIN sought to call attention to England's neglect of her seamen, and there being no asylum for them, makes too true the old saying, that when the sailor is worn out in his hard service-

"The provisional Committee believe that the

'Where he goes, and how he fares, No one knows, and no one cares."

"The shipowners and merchants of England roll in wealth-fruit of the sailor's toil. Among them there are, no doubt, many who will lend a helping hand to this good work. Many of them, to their honour be it spoken, have expressed their desire to see this blot effaced; and it is believed that, with the blessing of God, the movement will be successfully supported by the public, so as to redound to the honour of the patriotism, as well as the benevolence and charity of England, and also will serve to prove that her esteem for her brave and hardy seamen has a more solid foundation than words.

"FRANCIS LEAN, Hon. Sec., " Hospital for Worn-out and Disabled Merchant Seamen " (Supported by Voluntary Contributions). "Hibernia Chambers, London-bridge, July 29, 1864."

ADDITIONAL STATIONS AND NEW LIFE-BOATS.

DOVER.-A new life-boat and transporting-carriage have been sent to Dover by the NATIONAL LIFE-BOAT INSTITUTION, the former boat stationed there being considered to be too small, and not to have sufficient rowing power. The new boat is 32 feet long by 7 feet 4 inches wide, and rows 10 oars double-banked. She is built of Honduras mahogany, and possesses all the latest improvements that have been introduced. Her cost was collected in the county of Wiltshire by Captain N. J. REED, R.N., of Marlborough, and presented to the Institution. She has been named, by request, The Royal Wiltshire. She was publicly launched on the occasion of the Dover Regatta, on the 25th of August last, Captain REED and his daughter being launched in her, on which occasion the boat was generally ad-

HOLYHEAD .--- A new life-boat has been stationed at Holyhead, the former boat which was there being considered too small and deficient in sailing properties for this important station. The new boat is 36 feet long by 8 feet 4 inches wide, and rows 12 oars double-banked. Her cost was presented to the Institution by JOSEPH LEATHER, Esq., of Liverpool, and she has been named by him The Princess of Wales. She is a noble boat, and has given the greatest satisfaction to her crew. She was conveyed to her station in June last, with their usual liberality, by the London and North-Western Railway Company, free of charge.

NEW BRIGHTON, LANCASHIRE .- A new life-boat was placed at New Brighton, at the entrance of the Mersey, by this Institution in July last, to be placed there, in addition to the iron tubular boat previously on that station, and which had been found too heavy and slow for general use. The cost of this boat was also presented to the Institution by Mr. LEATHER. She is built of iron, but on the usual plan of the self-righting boats of the Institution. She is 33 feet long by 8 feet wide, and rows 10 oars. She has been named by Mr. LEATHER, The Willie and Arthur, after two of his sons. She was also conveyed to her station, free of charge, by the London and North Western Railway Company. She has since been off three times to the aid of vessels in distress on the banks, and has given every satisfaction to her crew.

SENNEN COVE, LAND'S END. - A new life-boat has been sent to Sennen Cove to replace a much smaller boat previously there. The cost of the new boat was presented to the Institution by Mrs. MARY ANN DAVIS, of Bideford, and has been named by her The Cousins William and Mary Ann of Bideford. The new boat is 33 feet long, by 8 feet wide; built of Honduras Mahogany. She was gratuitously conveyed

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to Penzance in July last, by the Great Western, Bristol and Exeter, South Devon and Cornwall, and the West Cornwall Railway Companies, and thence towed to her station by a revenue-cruiser, by permission of the Controller-general of the Coastguard. She has given great satisfaction to her crew. As the coast here is exposed to the great swell that sets in from the Atlantic Ocean, which falls in huge breakers on the shores, a boat of the finest description is required.

PORTHDINLLAEN, CARNARVON BAY .--- A life-boat station has been founded by the NATIONAL LIFE-BOAT INSTITUTION at Porthdinllaen, and a first-class life-boat, 36 feet long by 8 feet 4 inches wide, has been placed there. Her cost was presented to the Institution by Lady COTTON SHEPPARD, being the third boat munificently presented to it by that lady. The boat has been named The Cotton Sheppard. She was liberally conveyed to Carnarvon, free of charge, by the London and North-Western Railway Company, and sailed thence to Porthdinllaen, where she has given great satisfaction to the men who will be called on to work her. A substantial boat-house and stone slipway have been built at the station: and an honorary Local Committee has been formed to superintend the establishment, in accordance with the usual custom of the Institution.

CARDIGAN.---A new life-boat has been sent by the Institution to Cardigan, to replace a boat of a different construction previously there. The new boat is on the Institution's self-righting plan, and is 32 feet long by 7 feet 4 inches wide, of mahogany build. Her cost was presented to the Institution, it having been raised by subscription in Manchester, together with the cost of three other boats, chiefly by the exertions of ROBERT WHITWORTH, Esq., of that city. She has been reported highly of by her crew. She was kindly conveyed to New Milford by the Great Western Railway Company, free of charge. She has been named by Mr. WHITWORTH The John Stuart, after a gentleman residing in Manchester, who had kindly promised to give

Mr. WHITWORTH 101. in aid of the cost of every life-boat he would succeed in raising.

REDCAR, YORKSHIRE.—A new life-boat has been sent by the Institution to Redcar, to take the place of an old boat which was completely worn out. The new boat is on the Institution's self-righting principle, is built of mahogany, and is 33 feet long by 8 feet wide, rowing 10 oars. Her cost was presented to the Institution by Messrs. JOHN CROSSLEY and SONS, of Halifax, and she has been named The Crossley. She was conveyed to her station by the Great Northern and the North Eastern Railway Companies, with their usual liberality, free of charge, in The old boat, now re-September last. placed, was the oldest life-boat in the United Kingdom, having been built in the year 1802. She was on the original Greathead, or North Country model. She had at different periods saved a very large number of lives, and her crew had unbounded confidence in her. Having been handed down from one generation to another amongst them, and never having met with any serious accdent, they entertained a great affection for her; and although unfit to go again affoat, they have requested that she may not be broken up, but that they may be allowed to retain her as a reminiscence of the past.

THE REGISTER OF WRECKS FOR 1863.

THE Return of the Registrar-general of Seamen, recently published, shows that during the past year 413,972 vessels—representing a tonnage of nearly 62 millions entered inwards and cleared outwards from British ports. The estimated value of the goods carried on board these ships was upwards of four hundred millions sterling.

When the mind contemplates the magnitude of these facts, it is absolutely lost in realizing their full import. A feeling approaching that of awe overwhelms it while thinking of the activity, intelligence, and wealth of our countrymen, and their conconsequent responsibility in connection with the great commercial undertakings of the United Kingdom thus succinctly delineated.

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But our object at present, in dealing with the dry but instructive statistics detailed in the Annual Return of the Board of Trade, is not to follow out the train of thought naturally suggested by these figures. We will at once, therefore, proceed to deal with the important facts which are brought by this accurate Register under our notice.

We accordingly find that the number of wrecks and casualties, including collisions, reported as having occurred on the coasts of the United Kingdom during 1863, is 2,001. This number, which is in excess by 174 of the wrecks reported in 1862, is above the annual average of the ten years ending 1863. The numbers for the last five years are as follows, viz., 1859, 1,416; 1860, 1,379; 1861, 1,494; 1862, 1,827; and 1863, 2,001: total 8,117. The fearful increase in 1863 was owing to the great number of casualties in the gales of October, November, and December of that year; and the marked increase in 1862 is owing mainly to the 542 wrecks and casualties which happened in the gales of January, October, and December.

One word as to the character of those three fearful gales in 1863. It will be remembered by many that the first of these gales occurred on the 30th October, and was in part indicated by the steady fall of the barometer from 29.84 inches on the 27th to 29.10 inches on the 29th; and although it rose slightly to 29.32 inches on the morning of the 30th, it was but to fall with greater rapidity to 28.80 inches. by 3.30p.m., when the unprecedented pressure of $29\frac{1}{2}$ lbs. to the square foot took place in the force of the wind.

The second storm which we have to notice occurred on the 21st November, and was foretold by a rapid decline of the barometer from $29 \cdot 91$ inches on the night of the 20th, to $29 \cdot 70$ inches by the morning of the 21st, and then to $29 \cdot 44$ inches by 5 p.m., accompanied as before by an extreme gust of wind of $17\frac{1}{2}$ lbs. to the square foot, the great pressures continuing only between 4 and 5 p.m.

The third, and by far the most remarkable storm, occurred on the 2nd December, and was amply presaged by the rapid fall of the barometer from 29.46 inches on the night of the 1st, to 28.84 inches on the morning of the 2nd: the wind however did not begin to blow violently till 2.30 p.m., when a sudden gust of 9 lbs. was recorded; from 2.30 till 2.50 p.m. the pressures varied from 5 lbs. to 9 lbs.; it then increased greatly in force: at 2.50 p.m. there was a pressure of 16 lbs., and at 2.55 p.m. one of $22\frac{1}{2}$ lbs.

We may surely learn from these examples—firstly, that the chief severity of a gale may be expected at or near the time of minimum barometer reading; and, secondly, that after the minimum has passed, the worst of the gale has passed, and that the storm will moderate as the barometer readings increase.

It is an interesting fact that our fishermen are rapidly educating themselves in the use of the barometer; and many, without doubt, have been the instances where the watching of the barometer indications has saved valuable lives and much property. The NATIONAL LIFE-BOAT INSTITUTION has about 100 of these instruments at its Life-boat Stations, and the Board of Trade about the same number at other places. Aided by a diagram or chart, showing the daily variations of the barometer, a glance at it by the fisherman clearly tells what he is to expect from coming weather; and we confidently believe that if similar precautions were taken by our seamen-in addition to exercising due vigilance in the use of the lead-the prevention of a large number of shipwrecks every year would inevitably follow.

Out of the 2,001 wrecks and casualties in 1863, 882 are reported to have occurred by stress of weather, and 214 from various and unknown causes. Again, 61 were lost from defects in the ships, or in their gear or equipment, and 176 from inattention and negligence.

The 1,096 vessels lost by stress of weather and various other causes unknown we must charitably suppose were inevitable; yet we cannot help thinking that if the Storm Warning Signals on the coast had been diligently attended to, a considerable proportion of those 1,096 shipweecks might have been

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avoided. But the loss of 237 ships from negligence and defects in their equipments is inexcusable, and calls loudly for investigation —if not on account of the valuable property thus lost for ever to the country, surely on that of the precious lives sacrificed on these disastrous occasions—in order that every effort might be made to prevent such an annual waste of life and property.

During the same period 5,096 lives were saved by life-boats, and the rocket apparatus, fishing-boats, and other means. In the absence of these appliances the sacrifice of human life would no doubt have been terrible to contemplate.

The number of collisions reported in 1863 is 331, against 338 in 1862; and 323 in 1861; or 317 being the annual average of the seven years ended 1863. Of these 331 collisions, 216 happened at night, and 115 in the day time, 133 were caused by "bad look-out," "neglecting to show lights," and "neglect or misapplication of the road at sea." The remainder were more or less the result of "accident," "unsound gear," or "negligence."

Here again there can be no doubt that with proper precautions, and a good lookout, a very large proportion of these dreadful accidents might have been prevented.

During the past six years 399 lives have been lost from collisions in our seas a truly distressing fact—and if fishing-smacks and boats were not often at hand to render prompt and efficient services to the poor people, this large number would undoubtedly be enormously increased.

"The life and property lost by collisions at sea—ever increasing with extending trade —are so appalling," says SIR DAVID BREW-STER, "that no expense should be spared in indicating the approach of vessels during ocean fogs, or heavy falls of snow. A small dioptric apparatus, with a Bude or a Drummond light, ought to be a part of every ship's equipment, whether of war or of commerce. A floating reef is a more dangerous enemy than one fixed on a shore; and there is no source of protection against its shock, but the light which indicates its approach."

The accompanying Wreck Chart has a melancholy interest; and many a widow and

orphan can point out on it the site whereon perished all that was dear to them in this world. It will be observed that the site of *each* of the 2,001 shipwrecks and casualties during the past year can be distinctly traced out on this Chart.

The total number of wrecks and casualties from all causes, reported during the year 1863, is 2,001, against 1,827 reported in 1862. It is above the number reported during any one of the eight years preceding, and is 661 above the annual average of the eight years ending 1862. The tonnage of these wrecks is thus given :—

	•							Vessels.
Vesse	ls und	ler 50 'l	lons					404
51 and under 100 ,								494
101	"	300	,,					867
301	"	600	.,,					158
601	"	900	"					46
901	"	1200	,,					18
1201 an	d úpw	ards						14
	•							
			Fotal					2,001
1201 #1	սսրո		" Fotal	•	•	•	•	 2,001

Of the total number of ships to which casualties have happened in 1863, 1,649 were British ships, 272 foreign ships, and the country and employment of 80 were unknown.

This is a lamentable disclosure. The bravery and skill of our seamen are proverbial, but, we regret to add, that their recklessness is also unrivalled; and hence, after making due allowance for the greater number of British ships, this striking contrast between the loss of British and foreign vessels on the shores of the United Kingdom is accounted for.

The greatest number of casualties happened to ships laden with coals, ores, bricks, &c., or in other words, to ships of the collier class, as will be seen from the accompanying list, viz.:---

Colliers laden		614
Colliers light.	•	114
Iron and Copper Ore, &c.	•	146
Stone, &c	•	115
Timber		101
Fishing Smacks and other lade	n	
vessels		689
Vessels in ballast (not colliers)		174
Passengers and general cargo		48
Total ships		2,001

The winds most fatal, during 1863, were

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from the N.W., W.N.W., S.W., W.S.W., and W. During the former year, 1862, the most fatal winds were S.S.W., S.W., W.S.W., W., and N.W.

Again, it appears that 614 casualties happened with the wind at and under force 7, or from a calm to a moderate gale, and that 1,050 happened with the wind above force 7, or from a fresh gale to a hurricane.

The number of persons who perished in 1863 from wrecks was 620, while in 1862 it was 690.

It is satisfactory to know, that notwithstanding the larger number of casualties in 1863, there is a great falling off in the number of lives lost, and that it is 161 below the annual average of the last twelve years.

The total number of lives lost from 1854 to 1863 is really frightful to contemplate. It was 7,786; and this, let it be remembered, is not a casual loss. It is a continual, if not an ever-increasing one. The drain on our sailors and fishermen goes on year after year, notwithstanding all the benevolent and strenuous efforts made at the present day to stay the ravage. The sea is dreadfully exacting in its demands; and season after season, when the equinoctial gales blow, when the winter sets in, our shores are converted into altars, on which the Ocean, as during last winter, offered his victims by hundreds. It is unlikely that we shall ever effectually obtain the mastery over the waves; but even at this moment we are able to contend successfully with them in their blind efforts to swallow up life against our endeavours to save. During the fearful gales of October, November, and December last, nearly 500 lives were rescued by lifeboats alone; and undoubtedly a very large proportion must have perished in the absence of these noble services.

Let us recall to the reader's recollection an instance of a noble battle that was thus fought with the storm on the Girdler Sands off Margate, on the 3rd of December last.

The huge waves were lapping and curving in from the German Ocean, with the tide behind them and the wind against their crests, breaking from black water into white over a hundred concealed sands and shoals,

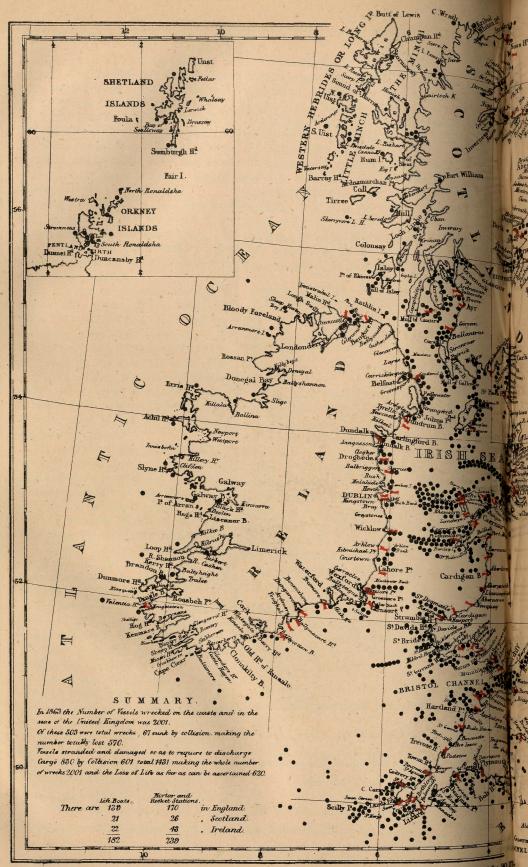
sweeping in their fury along a hundred narrow channels, where a ship's length that side or this is destruction; and the only sign of man in the dark, dancing panorama of the hurricane is the tossing light-ship and the rolling buoy. Such a night was the 3rd December, when two large vessels lay in that miserable predicament-the Fusilier on the Girdler Sands, the Demerara on those known as the Shingles. The former was an emigrant ship full of men, women, and children: the latter had a crew of 18 men and a pilot; and the best seamen on board of each must have felt, as darkness gathered over the stranded vessels, that the chances were a hundred to one against any from either reaching the shore, except as waterwashed corpses, with the marsh bird screaming above them, and the fragments of their ship drifting in with cargo, dead men, and sea-weed. Thanks to the Ramsgate lifeboat, however, and to the gallant fellows who manned her and the steam-tug Aid, every soul, consisting of 120 persons, was brought from those vessels safe and sound to Ramsgate, where they arrived at 12.15 p.m. on the 4th December.

Can our readers comprehend such a night's performance? We do not mean in its results or its gallantry, but in its details. Can they quite grasp what it is to be sixteen hours hard at work, fighting the winds and waves in a December hurricane, with a sea "on" that sweeps tons of grey water over the life-boat at every third stroke, and a wind that seems to turn the soaked clothes on the body into ice?

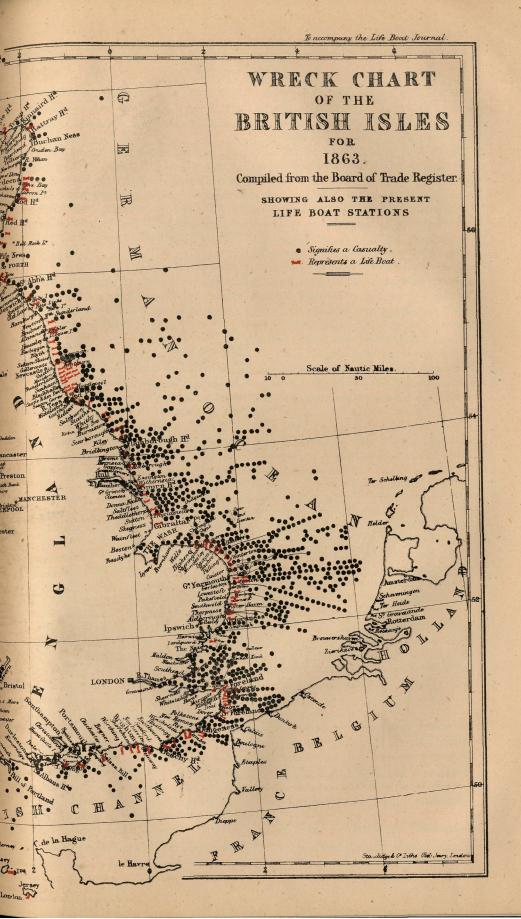
The life-boat men at Ramsgate, Holyhead, and many other places on the coast, during that fearful December hurricane, experienced it—and they saved altogether 246 lives that would otherwise probably have perished.

The number of lives saved during the past year was 5,096; and the total number of lives rescued by life-boats, the rocket and mortar apparatus, smacks, and other means, during the past eight years, is 25,254!—a number sufficient to man a considerable fleet.

The Board of Trade, the Coast-guard,



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and our boatmen and fishermen, continue to work cordially with the NATIONAL LIFE-BOAT INSTITUTION in the great and important work of saving the lives of shipwrecked persons on our coasts, and when one remembers that by means of its lifeboats and of fishing-boats—to the crews of which it has given liberal rewards for their laudable exertions—it has contributed to the saving of nearly 14,000 persons, cold must the heart of that man be which does not feel a thrill of joy coming over it at such an announcement.

There are at present 182 life-boats on the coasts of the United Kingdom belonging to the ROYAL NATIONAL LIFE-BOAT INSTITU-TION and other bodies. The mortar and rocket apparatus stations now number 239, and are under the management of the Coast-guard and the Board of Trade.

During the past year, 417 lives (besides 17 vessels) were saved by the life-boats of the National Institution alone, and upwards of 300 by shore-boats and other means, for which it granted rewards. A sum of 1,297l. was expended by the Institution in rewards; and 13,819% on its various establishments round the coasts of the British Isles. Who would not wish it well in this season, when the equinoctial gales are warning us of the approach of winter? Who would not bestow upon it some substantial token of sympathy for the great and national work in which it is engaged, if he could? The lifeboat is one of the proudest of England's many inventions. She is but a little vessel to contend with a caldron of sea like that which was experienced at Holyhead, Bude Haven, and other points on our coasts in the memorable storms of last winter; but her rowers are stalwart, weather-beaten men, whose sacred object is to preserve human life, and who peril their own in their noble enterprise. The thing is altogether characteristic of our country,-the build of the life-boat, her hardy crew, and her system of maintenance by voluntary contribution.

Do we not all think so? Are we not filled with a glow of national pride when we read of the courageous endeavours of our lifeboats to carry safety to sinking hearts and imperilled ships? And if so, shall we not, all of us, according to our opportunities, entitle ourselves to cherish the satisfaction which springs from noble efforts humanely made?

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SERVICES OF THE LIFE-BOATS OF THE NATIONAL LIFE-BOAT INSTITUTION.

SCARBOROUGH, YORKSHIRE.—On the 27th March, the smack Howard, of Grimsby, went ashore near the outer buoy, off Scarborough. On the accident being seen from the shore, the Scarborough life-boat was immediately launched, and took off the only man on board the smack, the remainder of the crew being on shore at the time.

WITHERNSEA, YORKSHIRE.—On the 16th April, a fishing-boat was seen approaching the shore with signals of distress flying, her crew finding it impossible to make the land through the heavy surf. The Withernsea life-boat was at once launched to their help, and succeeded in bringing the boat and her crew of 3 men safely to land. The lifeboat behaved exceedingly well on the occasion.

New BRIGHTON, NEAR LIVERPOOL.— About 4 p.m. on the 19th April, the barque *Corea*, of Guernsey, was observed on Taylor's Bank in Liverpool Bay, the wind being from the S.W. and weather squally. The New Brighton (tubular) life-boat was quickly launched, and proceeded under canvas to the vessel's assistance, and found her very leaky and badly strained. The life-boat's crew boarded the vessel and assisted in working the pumps. With the assistance of two steam-tugs, the vessel was eventually got into Liverpool about midnight.

SOUTHWOLD, SUFFOLK.—On the 16th April, two fishing-boats belonging to this place were seen in distress some distance off the shore during squally weather. The Southwold life-boat went out to their help, and afterwards brought both boats, with their crews, safely to the land.

ARKLOW, IRELAND.—On the 21st July, the ship *Constitution*, bound from Liverpool to New York, with passengers and general cargo, struck on the Bank off Arklow. The life-boats at Arklow and Wicklow went off, with the view of rendering assistance. The vessel was subsequently got off, and the Arklow life-boat accompanied her to Wicklow, all her own boats having been lost.

SUMMARY OF THE

MEETINGS OF THE COMMITTEE.

Thursday, 5th May, 1864. THOMAS CHAPMAN, Esq., F.R.S., V.P., 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.

Decided that the best thanks of the Committee be presented to the Commodore-Controller General, and the Deputy-Controller General of the Coastguard, for the valuable and important information procured, through the Officers of the Coastguard Service, in reply to the printed queries of this Institution, relative to the state of the Fishing Boats throughout the United Kingdom, with a view to their proposed improvement, by enabling them to be rendered insubmergible, if overtaken in gales of wind; and, likewise, for the valuable information supplied on the back of the Returns relating to the necessity of additional life-boats on the Coast.

Read and approved the Draft of the new Instructions of the Institution for the Restoration of the Apparently Dead from Drowning, and ordered the same to be printed and extensively circulated.

Also approved of the Report of Capt. D. Ro-BERTSON, R.N., the Assistant-Inspector, on his visit to the Life-boat Stations of the Institution on the Coast of Ireland, and to other places on the South-West Coast of England.

Also approved of a design for a 40-feet Lifeboat to be stationed at North Deal, and to be named *The Van Kook*, after E. W. COOKE, Esq., R.A., F.R.S., who, in conjunction with his friends, had defrayed the cost, amounting to 600*l*., of the station.

Reported that the late F. R. MAGENIS, Esq., of Grosvenor Place, had left the Institution a legacy of 1,000*l*, free of duty. He had previously defrayed the cost of the Tenby Life-boat, and onehalf the expense of the life-boat at Walmer, in addition to having given liberal donations to the Society.

Also that the Society for the Relief and Discharge of Persons Imprisoned for Small'Debts had forwarded to the Institution a liberal donation of 200l. - To be thanked.

Also the receipt of a donation of 1057. from the late EDMUND CLOWES, Esq., of the Temple.— To be thanked. [This amount Mr. CLOWES forwarded to the Institution a few weeks before his lamented demise.]

Read letter from ROBERT How, Esq., of Cleveland Square, transmitting a donation of 350*l*. on behalf of himself and his sister, Miss How, to pay for the new Life-boat and Transporting-carriage, to be stationed at Donna Nook, on the coast of Lincolnshire.— *To be thanked*.

Reported that the Berwick-on-Tweed new lifeboat, the *Albert Victor*, and her transportingcarriage, had been forwarded to their station; a free conveyance had readily been given to them by the Great Northern and North Eastern Railway Companies.— *To be thanked*.

Read letter from the Secretary of the South Holland Shipwreck Association, of the 19th April, stating that that Society had decided to station a life-boat near Flushing, on the Coast of Walcheren, at the entrance of the Scheldt, and asking for information on the subject.—Ordered the required information to be furnished. [The Association had subsequently ordered a 30-feet life-boat, on the plan of the Institution, to be built for them.]

Also from Mr. A. TOPP, of Aberdeen, of the 9th April, and Mr. M. O'BEIRNE, of Dublin, of the 25th April, calling attention to their respective plans for saving shipwrecked persons.— To be acknowledged.

Ordered new life-boat houses to be built at Donna Nook, Lincolnshire; Blackpool, Lancashire; and Sennen Cove (Land's End).

Instructed Messrs. PEACOCK and BUCHAN, of Southampton, to provide their Composition (No. 3) paint for such of the life-boats of the Institution as required painting this year.

Paid 1,2421. 15s. 9d. for sundry charges on various life-boat establishments.

Voted 6*l*. 18s. to pay the expenses of the Withernsea life-boat, in putting off and rescuing a fishing-boat and her crew of 3 men from destruction during stormy weather, on the 16th April.

Also 97. to pay the expenses of the New Brighton tubular life-boat, in going off and rendering important services to the barque *Corea*, of Guernsey, which had stranded, during squally weather, on Taylor's Bank, Liverpool, on the 19th April.

Voted also 201. 16s. 6d., to pay the expenses of the Arklow, Newcastle, and Tyrella (Dundrum Bay) life-boats, in going off, in replies to signals of distress from vessels, which, however, did not ultimately require their services.

Also 2*l*. 10s. to a boat's crew for putting off and saving 4 men from a fishing-coble, which was capsized in a heavy sea, off Cullercoats, Northumberland, on the 5th April.

Also 52. to a boat's crew, for going off and saving the crew of 6 men from the brig *Jane*, of Wisbeach, which had foundered during a heavy storm, on the 23rd January last, off North Sunderland.

Also a reward to 2 men for assisting to rescue the crew of 5 men from a boat belonging to the Norwegian sloop *Sykken*, which was wrecked off Palling during foggy weather, on the 29th February.

THOMAS CHAPMAN, Esq., F.R.S., V.P., Deputy-Chairman of the Institution, was warmly thanked by the Committee, for his able conduct in the Chair during the past year, and for his continued valuable services to the Institution.

Captain Sir Edward PERROTT, Bart., V.P., also received the cordial thanks of the Committee for his valuable and assiduous services during the same period as Chairman of the Sub-Committees of the Institution.

Thursday, 2nd June. THOMAS CHAPMAN, Esq., F.R.S., V.P., 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.

THE LIFE-BOAT.

[OCTOBER 1, 1864.

Also the Report of Captain WARD, R.N., Inspector of Life-boats of the Institution, on his visit to North Deal and Dover.

Reported that the new Instructions for the Restoration of the Apparently Drowned had been most extensively circulated throughout the United Kingdom. They had also been sent to the Governors of British Colonies, and to the Foreign Ambassadors at the English Court.

Read letters from the Secretary of the Admiralty and the Commodore Controller-General of the Coast-guard, of the 18th and 23rd May, requesting to be furnished with 3,100 copies of the new Instructions for circulation in H.M. Navy, and throughout the Coast-guard Service.

Also from the Controller-General of the Coastguard, forwarding replies by the Inspecting Commander of the Coast-guard as to the necessity of a life-boat at Newquay, Cardiganshire.—Decided that a Life-boat Establishment be formed at Newguay.

kead letter from JOSEPH LEATHER, Esq., of Liverpool, of the 20th May, forwarding 351*l*. 3s. to pay the cost of the iron life-boat for New Brighton, which he wished to be named the Willie and Arthur.— To be thanked.

Also from J. G. CHAMBERS, Esq., President of the Cambridge University Boat Club, of the 22nd May, transmitting, on behalf of the Club, 250*l*, for a life-boat, to be called the *Tom Egan*. Mr. EGAN had been a warm friend of the Institution for many years past.—Decided that the Club and Mr. Egan be thanked.

Reported the receipt of 500*l*. from a Lady, through Messrs. KNOWLES and FOSTER, of Moorgate Street, in aid of the cost of the life-boat station now being formed at Poole, Dorset.— To be thanked.

Also that Mrs. MARY ANN DAVIS, of Bideford, had paid 300% to the Institution for a new lifeboat for Sennen Cove, Cornwall, to be named The Cousins, William and Mary Ann, of Bideford. - To be thanked.

Also that the late GEORGE WHEELHOUSE, Esq., of Deptford Bridge, had left the Society a legacy of 250*l*., to pay for a new life-boat for Bridlington, Yorkshire.

Also that the late Admiral O. VERNON HARcourt had bequeathed to the Institution the sum of 1,000?. free of legacy duty.

Also the receipt of a legacy of 45*l*. from the executors of the late NEWMAN SMITH, Esq., of Mark Lane.

Also that the Independent Order of Odd Fellows, M.U., had forwarded to the Institution 331. 13s. 5d. as their first contribution.— To be thanked.

Decided that the best thanks of the Committee be presented to LEWIS CHALMERS, Esq., on his retirement from the office of Honorary Secretary of the Fraserburgh Branch of the Institution.

Ordered new life-boat houses to be built at Sutton and Skegness, on the Coast of Lincolnshire.

Paid 3651. 12s. 3d. for sundry charges on various life-boat establishments.

Voted 8*l*. to pay the expenses of the Drogheda life-boat in going off and rescuing the crew of 3 men from the schooner *Maria*, of Milford, which was totally wrecked, during a strong gale of wind, on Drogheda Bar on the 9th May.

Also a reward to a boatman of Cahireiveen, Co. Kerry, for plunging into the sea, and saving a lad who had fallen over the Quay at that place on the 7th May.

Also a reward to a boat's crew for rescuing, at considerable risk of life, 6 persons from another boat which was capsized in a heavy ground-swell near Castletown, County Cork, on the 8th April.

Thursday, 7th July, THOMAS CHAPMAN, Esq., F.R.S., V.P., 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.

Read letter from General KNOLLYS of the 7th ult., expressing the thanks of H.R.H. the PRINCE or WALES for the photograph of the *Albert Victor* life-boat, presented to him on behalf of the Committee.

Also from Capt. D. GALTON, F.R.S., Her Majesty's Assistant Under-Secretary of State for War, of the 27th ult., stating that H.R.H. the Field Marshal Commanding-in-Chief, and EARL DE GREY and RIFON wished the new Directions of the Institution for the Restoration of Persons Apparently Dead from Drowning to be circulated amongst the several stations of the Army at home and abroad.

Reported that four hundred and eighty copies of the Bills had been forwarded to the Horse Guards for distribution accordingly.—*Approved*.

Read letter from C. FORTESCUE, Esq., M.P., Her Majesty's Under-Secretary of State for the Colonies, of the 16th ult., stating that in compliance with the request of the Institution, copies of the said Instructions had been forwarded to the Governors of the British Colonies.— To be thanked.

Read and approved the Report of Capt. WARD, R.N., the Inspector of Life-boats of the Institution, of the 4th inst., on his inspection of its Life-boats on the Scotch Coast.

Also the Report of Capt. D. ROBERTSON, R.N., the Assistant-Inspector of Life-boats of the Institution of the 21st ult. and 6th inst., on his visits to Padstow, Teignmouth, Torquay, Poole, Dover, and North Deal.

Read letter from R. W. CRAWFORD, Esq., M.P., of the 15th ult., stating that his friend, the Hon. RUSTOMJEE JAMSETJEE JEJEEBHOY, Member of the Legislative Council of Bombay, had placed a sum of money at his disposal for distribution amongst the Charities of London, and especially those of the City of London, to which his respected father, the late Sir JAMSETJEE JEJEEBHOY, Bart., was a liberal contributor. The benefactions were intended for the benefit of those benevolent institutions without reference to race, creed, or religion. He (Mr. CRAWFORD) had pleasure in placing the sum of 500l. out of the fund at the disposal of the ROYAL NATIONAL LIFE-BOAT IN-STITUTION .--- Decided that a life-boat be built, and named 'The Sir Jamsetjee Jeejeebhoy.' Also

that the thanks of the Institution, inscribed on vellum, accompanied by a model of its life-boat and transporting-carriage, be presented to the Hon. RUSTOMJEE JAMSETJEE JEJEEBHOY, through Mr. CRAWFORD.

Reported that the ANCIENT ORDER OF FORESTERS had presented to the Institution 2557. 11s. 3d., which they wished to be appropriated in the purchase of a life-boat, to be called *The Forester*. -To be thanked, and decided to place the boat at Newquay, on the Cardiganshire Coast.

Also the receipt, through Mr. J. Bradfield, of 51. 7s. from 150 of the employés of the West India Docks, which had been collected in contributions, varying from three pence to five shillings. -To be thanked.

Also that the late Capt. MONTAGUE MONTAGUE, R.N., had left the Institution a legacy of 100*l*., free of duty.

Also the transmission to their stations of the Teignmouth, Padstow, Holyhead, and Dover new life-boats, in lieu of those previously stationed at those places. The Great Western, London and North Western, South Eastern, and the connecting Railway Companies, had readily given a free conveyance to the new and old life-boats to and from their stations.

The Padstow life-boat, which is called The Albert Edward, presented by the City of Bristol, had, on her way to her station, been publicly exhibited in that City, on the 15th ult., and was afterwards presented to the NATIONAL LIFE-BOAT INSTITUTION by the Mayor. Capt. ROBERT TRYON, R.N., had collected in Bristol upwards of 5001. to pay for the Padstow life-boat.— To be thanked.

The Dover life-boat, The Royal Wiltshire, was also exhibited at Marlborough, on the 27th ult. Capt. N. J. REED, R.N., Mrs. REED, and their daughter, Mrs. KEAN, had been indefatigable in collecting nearly 400l., to pay the cost of the lifeboat and carriage. — To be thanked.

Reported that the Duchesse DE COIGNY, Sir Ivon GUEST, Bart., and B. B. CABBELL, Esq., had severally given sites of ground on which to build the Girvan, Poole, and Cromer life-boat houses. — To be thanked.

Also that Capt. KLEEMAN, of the Swedish Royal Navy, and Capt. GORKOVENKO, of the Russian Imperial Navy, had been deputed by their respective governments to visit some of the life-boat stations of the NATIONAL LIFE-BOAT INSTITUTION. These Officers had since visited some of the stations, and had expressed themselves as much pleased with what they had seen on our coasts.

Paid 2,0601. 18s. 5d. for sundry charges on various life-boat establishments.

Voted 21. 17s. to pay the expenses of the assembling of the crew of the Irvine life-boat, with the view of going off to the rescue of the crews of two vessels which were in distress, during a gale of wind, near Irvine, on the 31st January last.

Also a reward to the crew of the Southwold lifeboat, for going off and rescuing two fishing-boats and their crews from destruction, during stormy weather, off Southwold, on the 16th April last.

Also 3*l*. to the crew of 3 men of a shore-boat, for putting off and saving, at considerable risk

of life, 2 men, whose boat was capsized by a strong westerly wind, in Yarmouth Roads, on the 27th May last. The accident having been observed from the shore, the salvors immediately launched a small boat through the surf, which was very heavy at the time, and fortunately arrived at the spot just in time to save the poor fellows, who were found stauggling in the sea.

Also a reward to 6 boatmen, for putting off in three shore-boats and rescuing 4 men, whose boat was capsized, during blowing weather, off Westonsuper-Mare, on the 25th May last.

Also a reward to the crew of a pilot-boat, for rescuing the crew of 2 men of a fishing-boat, which had struck against the piles of the new pier at Rye Harbour, on the 5th June last.

Thursday, 28th July. THOMAS CHAPMAN, Esq., F.R.S., V.P., 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.

It was moved, seconded, and carried unanimously.

That the Committee desire to express their sincere regret at the death of their much-respected colleague, Admiral BERTIE C. CATOR, V.P., who for a long series of years cordially and zealously co-operated with them in carrying out the important objects of the ROYAL NATIONAL LIFE-BOAT INSTITUTION. The Committee also desire to tender their sincere sympathy and condolence to Miss CATOR, and other members of the much-lamented Admiral's family, on the occasion of their great bereavement.

Reported the receipt of a cheque for 5,000*l* from a lady, through Messrs. HOARE, the bankers, in aid of the general funds of the ROYAL NATIONAL LIFE-BOAT INSTITUTION.

Resolved, That the thanks of the Institution, inscribed on vellum, and a model of its life-boat, be presented, through Messrs. HOARE, to the benevolent lady.

Ordered the life-boat builders to proceed with the construction of eight life-boats, in addition to the ten life-boats they were then building.

Read letter from the Secretary of the ANCIENT ORDER of FORESTERS, of the 27th July, expressing the thanks of the Council for the Vellum Vote of the Institution, and for the life-boat Photograph, in acknowledgement of the Order's Gift of a life-boat to the Institution. The documents would always accompany, annually, the Council to the different towns in which they would be located.

Reported the receipt from the Executors of the Legacy of 300*l*. of the late Miss EMMA KEATE, of Kensington; and that of 50*l*. of the late Mrs. DUROURE, of Blackheath.

Read letter from Lady BLANE, of the 21st July, stating that her son, Lieut. A. RODNEY BLANE, R.N., had collected 271. 15s. 10d., amongst his friends and others in China, and that she had also received 61. 2s. in Derby, in aid of the funds of the Institution.— To be thanked.

From J. C., of the 18th July, forwarding 250*l*. to pay for a new life-boat to be stationed at Pen-

zance, in lieu of the one there at present.— To be thanked.

Also from JOSEPH LEATHER, ESq., of Fairfield Mount, of the 14th July, transmitting 3111. 12s. to pay for the Holyhead new life-boat, *The Prin*cess of Wales, and her equipment.—To be thanked.

Reported the transmission to their stations of the Blackpool, New Brighton, and Sennen Cove life-boats. The London and North Western Railway Company had readily carried the two firstnamed boats over their line free of charge; and the Great Western, Bristol and Exeter, South Devon and Cornwall, and the West Cornwall Railway Companies had also given a free conveyance to the Sennen life-boat to her station. — To be thanked.

The Blackpool life-boat was publicly launched on the 20th July, under the superintendence of Capt. WARD, R.N., Inspector of Life-boats to the Institution. There were upwards of 20,000 persons present on the occasion, and everything passed off with great *éclat*.

Decided that a new life-boat be stationed at Alnmouth in lieu of the present boat, Miss WARDELL, of Tunbridge Wells, having liberally promised to defray the cost of a new boat and carriage.— To be thanked.

Read letter from Chevalier Torrie, Consul-General for Sweden and Norway, of the 13th July, forwarding, on behalf of the Seamen's Association at Drontheim, Christiansund, and Nalesund, 591. 13s., in aid of the funds of the Institution.— *To be thanked.*

Also from the Secretary of the LOYAL COUR-TENAY LODGE OF ODD FELLOWS at Kingsbridge, of the 6th July, remitting a draft for 28*l*, being the balance of funds arising from a fête given by them at Kingsbridge, on the 9th June, for this Institution.— To be thanked.

Reported that EDWARD SHEPPARD, Esq., of H.M. Custom House, London, had, during the current year, collected 2031. 9s. 6d. in aid of the funds of the Institution.— To be thanked.

Read letter from Capt. W. HUTCHISON, R.N., Honorary Secretary of the Kingstown Branch, of the 23rd July, stating that Capt. J. ROGERS, of the S.S. Leinster, had collected 19s. 10d. for the Institution, in a contribution box on board his vessel.— To be thanked.

Ordered a new life-boat house to be built at Valentia, county Kerry. Paid 9311. 3s. for sundry charges on various

Paid 9311. 3s. for sundry charges on various life-boat establishments.

Inte-boat establishments. The Secretary of the New Brighton Branch of the 27th July, forwarded a report of the services of the new iron life-boat, *Willie and Arthur*, just stationed at New Brighton, in putting off with the view of rendering assistance to the brigantine *Richard Cobden*, which was observed in a dangerous position in Liverpool Bay, on the 24th July. He reported that he went off himself in the life-boat, and that she gave the crew great satisfaction on the occasion.

Voted 231. 1s. to pay the expenses of the Arklow and Wicklow life-boats in putting off, on the 21st July, in reply to signals of distress, to the assistance of the emigrant ship *Constitution*, from Liverpool to New York, with a crew and passengers numbering 290 persons. The vessel had struck on Arklow Bank, but the weather not being veryboisterous, a steamer was enabled to approach the vessel and take off the passengers. The ship was subsequently got off. The Arklow life-boat accompanied her to Wicklow, she having lost all her boats.

Also a reward to 2 men for saving, at some risk of life, one out of 2 men whose boat was capsized during a strong wind and heavy sea off Inniskeragh, Arranmore, county Donegal, on the 17th June. One poor fellow unfortunately perished before assistance could reach him.

Also 41. to a boat's crew of 4 men for saving, at considerable risk of life, 2 men from the Cutter Yacht *Phantom*, of Preston, which had stranded on Taylor's Bank, Liverpool Bay, during squally weather on the 2nd July. The salvors were engaged with their own boat, getting spars from a wreck, when they observed the perilous position of the yacht. They immediately transferred the rigging, &c., from their boat to another, and hastened to the rescue of the two men.

LIFE-BOATS FOR THE FRENCH COAST.

WE have much pleasure in being able to report that the French Government have decided to place some life-boats on the coasts of France. Preparatory to doing so, it appears to have been decided to obtain every information on the subject, and to ascertain the results of experience in this country, where life-boats have been so much more extensively in use than in any other. Accordingly, after some preliminary inquiry, three life-boats, of different sizes, on the self-righting model of the NATIONAL LIFE-BOAT INSTITUTION, have been ordered by the French Government, complete, with transporting-carriages, and equipped in the same manner as that Society's boats. They are now being built by Messrs. FORRESTT and Son, the Institution's chief builders, and under its superintendence, at the request of the French Government.

A French naval officer of rank, Commodore DE LA ROCHE KERANDRAON, in command of a division of the north coast of France, has likewise visited this country by direction of his Government, to obtain a knowledge of the system of management of the life-boat establishments of this Institution, and of the working of the rocket and mortar life-saving apparatus on our coasts. He was accompanied by the Inspector of Life-boats of the Institution to its station at Walmer, where he witnessed the launching of the life-boat; and also to two coastguard stations, to examine the rocket and mortar life-saving apparatus.

The Commodore expressed himself as being much gratified with all he had seen, and as highly appreciating the attention he had received from the Institution.

THE LIFE-BOAT.

OUR NAUTICAL APTITUDES.

AT the dispersion of the children of Israel in the land of Canaan, it had been predicted by Moses that Zebulon would dwell upon the coast, and suck of the abundance of the seas. Thus the tribe of Zebulon became a purely mercantile and maritime one, and trading along the shores of the Mediterranean, it sucked, as it were, of the wealth of Greece and Rome and their tributaries, which was brought back to the land of Canaan, where it was interchanged for the commodities of the other tribes.

If there be one people on the face of the earth who have more than another inherited the predilections for the sea of the tribe of Zebulon for maritime and mercantile pursuits, it must be admitted that it is the British people, whose supremacy on the seas is unrivalled, as the following facts disclose :—

Last year, the ships of all classes which entered inwards and cleared outwards were 413,972, representing a tonnage of nearly sixty-two millions!

The estimated amount of imports and exports was four hundred millions sterling, collected and dispersed, not only along the shores of the Mediterranean, but in every clime where the foot of the civilized man has trodden.

These facts show clearly our national aptitudes, which are wisely subordinated in the providence of God for great and wise purposes.

We have made these few preliminary remarks on observing the following appropriate Article in a number of the *Examiner*, on the subject of our Nautical Aptitudes:—

"The New York correspondent of the *Times* observes of the nautical capabilities of America :----

"'The fact seems to be that the United States, on the conclusion of peace, may be a great military, but never can become a great naval nation. Their territory by its very vastness is inland, and must breed an inland, not a maritime, population. It requires the sea to beget a love of the sea. The boy that is to be a sailor when he is a man must sport upon the shore when he is a child, and this can be the destiny of but few Americans.'

"'It seems to us that something more than a coast is necessary to a turn for the sea. There are nations that take to water like ducks, and people with a repugnance to it which can never be thoroughly conquered. The necessity of getting a living, or a conscription, may make seamen of them, but it is against the grain, and they are never at home on shipboard, always yearning for the shore. We question the position of the writer in the Times, that "it requires the sea to beget a love of the sea, and that a boy to be a sailor must sport on the shore when a child." Inland, in the very heart of the country, as indeed all through the country, may be seen the propensities which, favoured by opportunity, make the sailor. Wherever there is a pond, urchins will be found dabbling in it. To get into water, even though it may happen not to be clean, is as natural to them as to get into mischief. If there be no pond within reach, they will amuse themselves with the gutter, and send walnut-shell boats over the rapids. But the love of water so displayed does not extend to its uses for purification. and it is evident that the washing is quite incidental, and the delight confined to mimic nautical appliances, swimming boats, or constructing moles and docks. Now nothing of this sort is to be seen in the neighbouring country. The French boy would as soon put his hands in the fire as his feet in water for sport. His first amusement is to play at soldiers. He shoulders a broomstick, goes through his facings, and performs the manual and platoon exercise with his comrades. The type of the nation is most appropriately the cock, and the cock is very shy of water. We, on the contrary, are a web-footed people, and all aquatics come naturally to us. It is so, too, with the Dutch, the Swedes, the Norwegians, and perhaps the Danes. To most other people the sea is always irksome."

THE LIFE-BOAT.

"Man the life-boat! man the life-boat! Hearts of oak, the tempest brave; See, the shatter'd vessel staggers; Round her billows foam and rave.

See the ark of refuge launching : See her hardy crew prepare For the dangerous work of mercy; Gallant British hearts are there.

Now the fragile boat is hanging On the billow's feathery height; Now 'midst fearful depths descending, While we shudder at the sight.

Courage ! courage, she's in safety ! See again her buoyant form, By His gracious hand uplifted Who controls the raging storm.

With her precious cargo freighted, Now the life-boat nears the shore; Parents, brethren, friends embracing Those they thought to see no more.

Blessings on the dauntless spirits, Dangers thus who nobly brave, Ocean's terrors, death defying, So they may a brother save.

Christian ! pause, and deeply ponder : Is there nothing you can do? Sinking ship, and storm, and life-boat,

Have they not a voice for you?" AN OLD SAILOR.

Canada.

Royal National Life-Boat Institution.

For the Preservation of Life from Shipwreck.

(Incorporated by Royal Charter.)

FOUNDED IN 1824 .- SUPPORTED BY VOLUNTARY CONTRIBUTIONS.

Patroness-HER MOST GRACIOUS MAJESTY THE QUEEN. President-Admiral HIS GRACE THE DUKE OF NORTHUMBERLAND, K.G., F.R.S. Chairman-THOMAS BARING, ESQ., M.P., F.R.S., V.P., Chairman of Lloyd's. Deputy-Chairman-THOMAS CHAPMAN, Esq., F.R.S., V.P.

APPEAL.

THE COMMPTEE OF MANAGEMENT have to state that, during the past year, the ROYAL NATIONAL LIFE-BOAT INSTITUTION has expended 13,8194, on various Life-boat Establishments on the Coasts of England, Scotland, and Ireland. During the same period the Life-boats of the Institution have also been instrumental in rescuing the Crews of the follow-ing Wrecked Vessels:--

Schooner Sir Colin Campbell, of Whitby-Saved vessel and crew . Ketch Snip, of Amsterdam—Assisted Ship Louisa, of Bristol Schooner Economy, of Portmadoc-Saved vessel and crew 5 Lugger Vigilant, of Peel-Saved vessel and crew Smack St. Patrick, of Bangor vessel and crew Schooner Maria, of Amlwch Schooner L'Espérance, of Nantes Schooner Harry Russell, of Glasgow --Saved vessel and crew Barque Bonnie Dundee, of Hundee . 13 Schooner Guilia, of Palermo-Saved 2 Sanck Elizabeth, of North Berwick, Schooner Kezia, of Sunderland Schooner Handena, of New Quay. Schooner Handena, of Plymouth ... Schooner Handena, of Plymouth ... Brig Regalia, of Whitby Brig Levant, of Bristol Smack Ericargia, of Parssate vessel and crew 10 Schooner Northern Lights, of Preston Smack Gipsy, of Drogheda Italian Brig Camoglino - Assisted to save vessel and crew Schooner Elizabeth, of Whitehaven 4 Б Barque Tamworth, of Skien, Norway 17 Barque Trovidence, of Dantzic 7 Smack Saucy Jack, of Inverness ... 1 Pilot Boat, of St. Ives—Saved boat and 7 .. 10 Smack Britannia, of Ramsgate Ketch Neuha, of Berwick Brig Florence Nightingale, of London Schooner Azores Packet, of Falmouth FIGUE BOAL, OF SLIVES—Saved Boat And Brig Theophilus, of Aberdeen Barque Ina, of North Shields Ship David White Clinton, of New 6 4 Saved vessel . 14 Schooner Fame, of Maryport-Saved Schooner Vulcan, of Lyme Regis-8 Saved vessel Schooner Vigilant, of Kirkcaldy в з Barque Diadem, of St. John's 4 Ship Conflict, of Plymouth 1 Barque Wm. Bromham, of Gloucester 6 Assisted to save vessel and crew . Fishing-boat of Aldborough-Saved 27 Schooner Cestrian, of Chester boat and crew..... 5 3 Barque St. Lawrence, of Liverpool-Saved vessel and 14 417 Brig Marietta, of Lisbon 1 a collision.

During the year the Society has granted rewards to the Crews of Shore-boats, &c., for saving the following Shipwrecked Persons :---

For these joint numerous services in saving 714 lives from shipwreck, the Institution has granted rewards amounting to £1,297, in addition to 15 Silver Medals.

21,293, in addition to 15 Street networks. The number of lives saved either by the Life-boats of the Society, or by special exertions, for which it has granted rewards, since its formation, is 13,920; for which services 82 Gold Medals, 739 Silver Medals, and £18,510 in cash, have been paid in rewards. The Institution has also expended £120,000 on Life-boats, Life-boat Transporting-carriages, and Boat-houses.

Bost-houses. The committee desire to express their grateful sense of the generous support which they have received from the British Public during the past few years, a support which has enabled them to establish their present magnificent fleet of 137 life-boats on the shores of the United Kingdom. Deeply sensible, however, of the great responsibility that rests on them to maintain their fleet in a thoroughly efficient state, and its crews practised in the management of their boats, which can only be effected by a large and permanent annual income, they earnestly appeal to all classes of their country-ment to site them in wholding any dependence and their pational successful appeal to all classes of their countrymen to aid them in upholding and perpetuating so great and truly national a work.

Donations and Annual Subscriptions will be thankfully received by the Bankers of the Institution, Messrs. WILLER, PERCIVAL, and Co., 76 Lombard Street; Messrs. COUTES and Co., 59 Strand; Messrs. HEIRIES, FARQUARE, and Co., 16 St. James's Street, London; by all the Bankers in the United Kingdom; and by the Secretary, RICHARD LEWIS, Esq., at the Office of the Institution, 14 JOHN STREET, ADELFH, LONDON.-W. C.

October, 1864.