

THE LIFE-BOAT,

OR

JOURNAL OF THE NATIONAL LIFE-BOAT INSTITUTION.

(ISSUED QUARTERLY.)

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WITH ILLUSTRATIONS.

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

FOURTEEN years since a movement commenced of an altogether novel character in the life-boat work, and which is without precedent in this or in any other country. At that period a benevolent lady presented the NATIONAL LIFE-BOAT INSTITUTION with the cost of a new life-boat, to be stationed at a part of the coast where one was needed. Another life-boat soon followed from a gentleman. A third was presented by a Yacht Club; and a fourth was given by a lady, as a thankoffering after a providential preservation from drowning. Rapidly the generous spark was fanned into a flame, and new boats, as fast as they were required on the various coasts of the United Kingdom, were presented to the Society.

Many of these noble gifts assumed the shape of memorials to departed relatives or friends, the first of which was given by two surviving sisters, in memory of a third to whom they had bid a last farewell, and which boat bears the affecting and affectionate name of *The Sisters' Memorial*. Next came inland towns—Ipswich being the first—some of the inhabitants of which, feeling a desire that their own communities should be represented on the coast as performing their share of the national duty of affording protection to shipwrecked persons, in the only manner in which they could do so, appealed to their fellow-townsmen, and soon many of such inland places were represented by their own boats. Our chief manufactur-

ing towns and cities being conspicuous amongst the number.

Again, various public bodies of men, such as the great Mutual Benefit Societies, the Civil Service, the Universities, Yacht Clubs, Commercial Travellers, Sunday Schools, and the subscribers to Public Journals, the Society of Friends, &c.; and lastly, standing by itself in kind, the noble gift of 2,000*l.* for the provision and endowment of a Life-boat Station, by a firm of Parsee Merchants, Messrs. CAMA and Co., on retiring from business in London, as an acknowledgment of, or thankoffering for their success, and in testimony of their appreciation of the kind reception they had uniformly met with from the inhabitants of London.

In this manner it has come to pass that, as a great and enduring monument of the benevolent feeling and voluntary duty, if we may use the term, of the people of this country, the grand fleet of splendid and perfectly-equipped Life-boats which belongs to the Life-boat Institution now encircles our coasts. That fleet, at the present time, consists of no less than 220 boats; and of that large number 212 have been special gifts, or, as in the case of a very few of them, have been adopted by payment of their existing value.

Through the means of this splendid support, and more than generous appreciation of the usefulness of the Institution, and of the labours of its managing body, the Committee who conduct its affairs are now in that proud position that they can look on the work they had set themselves to do as

complete, so far as the placing life-boats at all or nearly all suitable and available positions on the coasts of the United Kingdom is concerned; and can feel that it will only, or at least chiefly, now devolve on them to maintain their existing Life-boat Establishments in a state of completeness and efficiency. To enable them to do which, however, they will still—considering that the NATIONAL LIFE-BOAT INSTITUTION is solely dependent on voluntary support—continually need the encouraging sympathy and interest, and the generous pecuniary aid of their fellow-countrymen, who have so generously supported them during the past.

THE BRANCHES OF THE NATIONAL LIFE-BOAT INSTITUTION.

AT the request of the General Committee of the NATIONAL LIFE-BOAT INSTITUTION, HIS GRACE THE PRESIDENT has addressed the following important communication to its several Branches, inviting them anew to assist to carry on with unflinching energy the great and national work in which the Institution is now engaged. We feel assured that this appeal to aid in consolidating the important undertaking, in which the NATIONAL LIFE-BOAT INSTITUTION has been for so many years unceasingly employed throughout the British Isles, and whereby thousands upon thousands of our fellow-creatures have been saved from an appalling death from shipwreck, will on this, as on former occasions, be promptly and cordially responded to.

“14 John Street, Adelphi, London, W.C.
“16 May, 1870.

“SIR,

“I AM requested by the General Committee of Management to address the following remarks in their name to the several Local Committees in charge of the life-boats of this Institution.

“The Committee have, from time to time, in their Annual Report, thankfully acknowledged their indebtedness to the Local Committees for their invaluable voluntary aid in superintending the life-boat establishments intrusted to their care; but they feel that, after so many years of co-operation, a more direct expression of their

appreciation and of mutual congratulation is called for.

“It is now no less than nineteen years since the Institution seriously undertook the work of providing the whole coast of the United Kingdom with life-boats, wherever needed, and reorganized its system of management.

“The question at that time had to be considered whether the Society should be represented on the coast by single individuals, as agents, to whose care the life-boats and all pertaining to them should be intrusted, and who would be held responsible for them and for all the necessary arrangements for working them; or whether the General Committee should appeal to the public spirit of their fellow-countrymen on the coast, and invite them to organize local voluntary Committees, each with its own *President, Chairman, and Honorary Secretary*, to constitute a distinct branch of the Institution; each gathering round it its own cluster of voluntary subscribers, and each therefore representing, on a smaller scale, the general managing body of the Society in London.

“Having faith in their countrymen and in the voluntary system, and believing that the Institution would appeal to the country with more dignity and force through such a representative organization than through individual and paid agency, the Committee happily selected the first of those systems. In the year 1851 the first Local Branch Committees were formed, and the work has gone on and prospered until now, when the Society has no less than 200 Branch Committees on the coast of the United Kingdom in charge of 220 life-boats, besides inland Committees for the collection of funds alone.

“The General Committee feel, however, that they have not merely to congratulate their local coadjutors on the magnitude of their operations, and on the important position which the Society now occupies, but, what is of more importance, on the practical results; on the many thousand human lives that have been saved by it; on the very small sacrifice of life amongst those brave men who have worked its boats; and on the almost unappreciably small number of failures on their part to effect the rescue of those they have endeavoured to save.

“In congratulating the Local Committees, however, on past results and present po-

sition, and feeling how much the successful working of the Institution must always depend on their cordial and active support, the General Committee desire to improve the occasion by a few remarks with regard to the future.

"It would be unreasonable to expect that amongst so large a number of voluntary local bodies all should be equally active, equally enthusiastic, equally efficient; even in the case of paid and disciplined bodies, such as the army and navy, such universal perfection is not attained; and in the case of Local Life-boat Committees, there are sometimes special causes tending to lessen the general local interest in their life-boat establishments, more especially when wrecks are not of very frequent occurrence.

"In order to maintain a general local interest, which the Committee conceive to be of the utmost importance, even apart from the great pecuniary advantage of the same, they think it indispensable that every Local Committee should meet at the expiration of each quarter of the year, to mutually consult as to the state and prospects of the Branch, to receive the Reports of the Honorary Secretary and the Coxswain as to the condition of the life-boat and its equipments, to audit the receipts and expenditure, to authorize payment of bills, or refer them to the General Committee, and to examine the Official Quarterly Report before its transmission to the Secretary in London.

"The Inspectors report that at some stations this periodical meeting of the Local Committee is neglected, and that practically therefore, in those cases, the whole responsibility of the life-boat work is thrown on the Honorary Secretary, who is then virtually only a representative agent of the Institution.

"Even if only two or three members of a Local Committee should be present, besides the Honorary Secretary, it is still considered that their punctually holding such meetings is highly necessary, and the General Committee would recommend that a fixed day for each meeting should be specified; such as, for instance, the first Monday or first Wednesday in January, April, July, and October, when the Reports of the previous quarters just concluded will be ready for examination.

"Secondly, the Committee would also

suggest that, at any stations where such is not already the rule, a qualifying subscription be required of each member of a Local Committee, as is the practice in London; since, apart from the influence of example, without some subscription no person can be properly considered to be a member of the Institution at all.

"If the above two recommendations be acted on, and if each member of a Local Committee will kindly use his own personal influence amongst his friends and neighbours in favour of their local life-boat establishment, the General Committee have no apprehension that there will be any falling off either in interest or in pecuniary support; but, on the contrary, that the future in each of their localities will more than rival the past.

"In consequence of the spontaneous relinquishment by the Institution of the annual subsidy received for some years past from the Mercantile Marine Fund, the Board of Trade have, as you are probably aware, intimated to the Officers of Coastguard and Customs, as Receivers of Wreck, who have hitherto by virtue of that subsidy represented the Board of Trade on our Local Committees, that they will now cease to do so. The General Committee, however, trust that the co-operation of those officers will be continued, and that they will remain on the several Local Committees.

"The Committee desire to conclude this communication with their cordial and hearty thanks to the several Local Committees for their hitherto kind support, and especially to the Local Honorary Secretaries on whose zealous co-operation the effectual working of the several Branches must always much depend.

"Will you have the goodness to acknowledge the receipt of this letter to Mr. LEWIS, and inform him which day in the first week of each quarter will be selected by your Committee to hold their Quarterly Meetings?

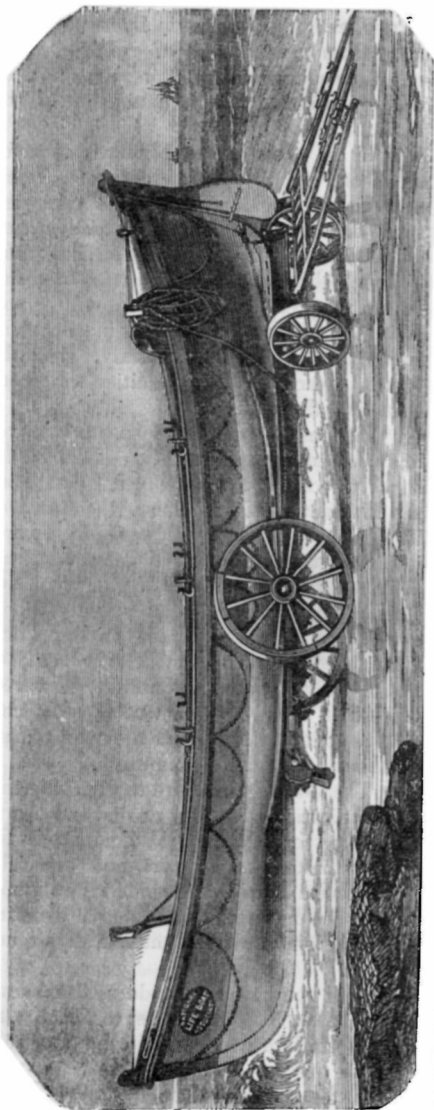
"I am, &c.,

"NORTHUMBERLAND,
President.

"TO THE HONORARY SECRETARY OF THE

"Branch of the Royal National Life-boat Institution."

ADDITIONAL STATIONS AND NEW LIFE-BOATS.



ABERSOCH, NORTH WALES.—The NATIONAL LIFE-BOAT INSTITUTION has formed a life-boat station at Abersoch, near Pwllheli. A large number of vessels are often at anchor in St. Tudwell's Roads off that place, which are liable to accident or sudden changes of wind, and the local residents were therefore desirous to have a life-boat in readiness for any such emergency. The boat sent is a 33-feet 10-oared one, and is provided with a transporting-carriage, for

which a substantial and commodious boat-house has been provided on a suitable site near the creek and village of Abersoch, where the majority of the men who are to form the crew reside. It is also close to the road, along which the boat can be conveyed to Hell Mouth and other small bays to the southward, in the event of its being necessary to launch in that direction. The expense of the life-boat establishment has been munificently defrayed—through ROBERT WHITWORTH, Esq., and the Rev. E. HEWLETT, M.A., the Treasurer and Hon. Secretary of the Manchester Branch of the Institution—by ROBERT BARNES, Esq., of that city—the boat, at the request of the benevolent donor, being named the *Mabel Louisa*, after his daughter. On the 15th October last the life-boat was publicly inaugurated at the station under the superintendence of Capt. J. R. WARD, R.N., the Inspector of Life-boats to the Institution. Mr. WHITWORTH, who attended on the occasion as the representative of Mr. BARNES and the Manchester Branch, presented the boat to R. LLOYD EDWARDS, Esq., the President of the Branch, who accepted it on behalf of the locality. After a prayer had been offered for the success of the boat by the Rev. T. JONES, rector of the parish, the ceremony of naming was performed by Mrs. F. LLOYD EDWARDS in the usual manner, and the boat was launched successfully, amidst the loud cheers of those present on the occasion, and was then tried by the crew, who demonstrated its self-righting and other properties.

It is gratifying to record that before the life-boat had been three months on its station, it was the means of saving 14 men, belonging to the wrecked ship *Kenilworth*, of Liverpool, from an inevitable death. It was a gallant service; and the Rev. OWEN LLOYD WILLIAMS, who is the zealous Hon. Secretary to the Abersoch and Porthdenllaen Branch, and who had been indefatigable in his exertions in forming this life-boat station, went out in the life-boat on the occasion, and for that and other services in assisting to save life from shipwreck, he has received the Silver Medal of the Institution. It should be added, that this makes the fourteenth life-boat the Manchester Branch has been enabled to present to the parent Institution. Their stations are as follows:—Berwick and Blyth, Northumberland; Bridlington, Yorkshire;

Lyme Regis, Dorset; Carmarthen Bay, Cardigan, Portmadoc, Abersoch, Llanddwyn, and Llandulas, Wales; Maryport, Cumberland; Douglas and Ramsey, Isle of Man; and Courtown, Ireland.

CORTON, SUFFOLK.—On the application of the local residents a life-boat station has been formed by the Institution at the village of Corton, near Lowestoft,—it being considered that such a boat would be of service in that place, as there is an open passage through the Corton Sand Bank immediately opposite the village, and numerous vessels get ashore there, and often break up very quickly after doing so, before, perhaps, the Lowestoft life-boats could get to the assistance of the unfortunate crews. As the boatmen here are prejudiced against the Society's self-righting boats, this new life-boat has been built on the Norfolk plan, and is 36 feet long, 10½ feet wide, and pulls 14 oars, double banked. It is large enough to go off to the Sands under sail, and yet is manageable under oars for inshore work. Capt. FOWLER, a Member of the Local Committee, obligingly granted a site for the erection of the very substantial house, which has been erected for the boat. The entire cost of the Life-boat establishment is the gift to the Institution of Mrs. GEORGE DAVIS, of Clapham; and the boat, in accordance with her desire, is named the *Husband*. On the 19th Oct. last, the boat was conveyed to Corton, and, on the following day, it was formally presented to the Society by Mrs. DAVIS, who also named it. It was then launched from the beach under the supervision of the Inspector of Life-boats, and tried with sails and oars, everything in connection with the demonstration passing off very well, Mrs. DAVIS herself taking an active part in the proceedings. She stated at the time, that she had named her life-boat the *Husband*, in memory of him who was one of the best of husbands and kindest of men, and that she trusted that God's blessing would rest on the boat and all connected with the NATIONAL LIFE-BOAT INSTITUTION.

LOWESTOFT.—The Institution has placed an additional life-boat on this station to be used for inshore-work, as the other sailing life-boat is too large for management under oars. The new boat is 32 feet in length, 10 feet in width, and rows 12 oars double-banked. Like the Corton life-boat, and for the same reason, this boat is not one of the self-righting life-boats, but is built on the

Norfolk plan. It was the gift to the Society of Miss LEICESTER, of London, who had previously presented to the Institution the boat stationed at Whitehaven, which is named the *Elizabeth*, after her late mother. The Lowestoft surf life-boat, which is named the *George*, after her late brother, who was a liberal supporter of the Institution, was placed on its station last February by Capt. D. ROBERTSON, R.N., the Assistant-Inspector of Life-boats, without waiting for the completion of the boat-house, which is now finished. The boat was sailed round from Yarmouth to its station, and behaved very well.

ALDERNEY.—A Life-boat establishment has been founded by the Institution on the Island of Alderney. As shipwrecks have occasionally taken place there with a lamentable loss of life, and as there was no difficulty in procuring a good crew, it was considered highly desirable that there should be a life-boat stationed on the Island, and the local residents had made application to the Society accordingly. A convenient site was chosen for the boat-house, which will enable the boat to be conveyed on its carriage along the roads affording access to the beaches which occur at intervals on the otherwise iron-bound coast, where the boat can be launched when needed. The Earl of STRAFFORD, P.C., who had presented the Weymouth Life-boat to the Society, also defrayed the expense of this boat—a 33-feet 10-oared one—which, at his request, is named the *Mary and Victoria*. It was conveyed to its station in October last; being taken to Weymouth by railway; it was thence, by the kind permission of the Lords Commissioners of the Admiralty, towed to its station by H.M.'s Steamer *Seamew*, the carriage and gear of the boat being carried on board that vessel. The life-boat, with the drogue out astern, towed very steadily in a considerable sea. The following day after it reached Alderney the boat, mounted on its carriage, was taken through the principal streets of St. Ann's in a procession, which comprised the Local Committee, sailors from the *Seamew*, soldiers of the Royal Artillery, and 17th Regiment in garrison, Members of the Independent Order of Odd Fellows and other Societies, and the Band of the Royal Alderney Militia Artillery. On arriving at the pier, Capt. D. ROBERTSON, R.N., the Assistant-Inspector of Life-boats to the Institution, who had taken charge of the

boat to its station, presented it to the Local Committee, the gift being acknowledged by their President, THOMAS CLUCAS, Esq., Judge of Alderney, who expressed their high appreciation of the liberality of Lord STRAFFORD, and stated that he felt sure the local boatmen would always do their duty when the services of the life-boat were called into requisition. Mrs. CLUCAS then, in the customary manner, broke a bottle of wine on the boat, and named it, and after the Rev. W. ROSS had offered a

prayer it was launched amidst the utmost enthusiasm, and the men put through various evolutions by Capt. ROBERTSON. Amongst the experiments the Life-boat was capsized alongside the *Seamew*, with the crew on board, speedily righting itself, however. Nearly all the inhabitants of the island had assembled to show their appreciation of the gift, and were much pleased with the proceedings and with the behaviour of the life-boat.

THE RESCUE.*



I WAS hastening up from the beach, where the life-boat men had rendered good service that night.

* * * * *

The work was nobly done! JOHN FURBY, the coxswain, with a sturdy crew of volunteers—twelve in all—were ready for action, with cork life-belts on, when the team of four stout horses came tearing along the sands dragging the life-boat after them, assisted and cheered on by a large crowd of men and boys. No unnecessary delay occurred. When opposite the first wreck, the carriage was wheeled round, so that the bow of the boat pointed to the sea. The crew

sprang into their seats, and, shipping the oars, sat ready and resolute.

Immense breakers thundered on the beach, and rushed inland in fields of gurgling foam, that looked like phosphoric light in

* We reprint this account from "Shifting Winds—A Tough Yarn," by Mr. R. M. BALLANTYNE, whose works on "The Life-boat; or, A Tale of our Coast Heroes," and on other interesting subjects, have deservedly attracted much attention. We can safely commend "Shifting Winds"—which, like all Mr. BALLANTYNE'S stories, is founded on actual facts—as a work full of interest and instruction, and as maintaining in every way the reputation of the author. We may add that all his works can be obtained, by order, from MESSRS. JAMES NISBET and Co., Berners Street, W., and all other Booksellers.

the darkness. Into this the carriage was thrust as far as it could be with safety by many strong and willing hands. Then the men in the surf seized the launching lines, by means of which the boat could be propelled off its carriage. A peculiar adaptation of the mechanism enabled them, by *pulling backward*, to force the boat *forward*. For a moment they stood inactive, as a towering wave rolled in like a great black scroll coming out of the blacker background, where the sound of the raging storm could be heard, but where nothing could be seen, save the pale red light which proved that the wreck still held together.

The sea flew up, almost overwhelming the carriage. JOHN FURBY, standing at his post by the steering oar, gave the word in a clear, strong voice.

"Hurrah!" shouted the men on shore, as they ran up the beach with the ends of the launching ropes.

The boat sprang into the surf, the crew bent to their oars with all their might, and kept pace with the rush of the retreating billow, while the sea drew them out, as if it were hungry to swallow them.

The life-boat met the next breaker end-on; the men, pulling vigorously, cleft it, and passing beyond, gained the deep water, and disappeared from view.

The minutes that followed appeared like hours; but our patience was not long tried. The boat soon reappeared, coming in on the crest of a towering wave, with six saved seamen in her. As she struck the beach she was seized by the crowd on shore, and dragged out of danger by main force.

Thus far all was well. But there was stern work still to be done. Having ascertained that the vessel was a collier, and that none of her crew were lost, I sent the six men with an escort to the Sailors' Home, and followed the life-boat, which was already on its way to the second wreck, not more than five hundred yards from the first.

Here they were equally successful, three men and a boy being rescued from the vessel, which also proved to be a small collier. Then the boat was conveyed to the third wreck, which turned out to be a brig, and was nearly a mile removed from the harbour, just opposite the fishing village of Cove.

The crew of the life-boat, being now much exhausted, were obliged to give up their oars and life-belts to fresh men, who volunteered for the service in scores. Nothing, however,

would persuade JOHN FURBY to resign his position, although he was nearly worn out with fatigue and exposure.

Once more the life-boat dashed into the sea, and once again returned with a crew of rescued men, who were immediately led up to the nearest hut, which chanced to be that of STEPHEN GAFF. One of the saved men, being insensible, was carried up and laid in STEPHEN'S bed.

There was still some uncertainty as to whether all those on board the wreck had been rescued, so the boat put off again, but soon returned, having found no one. As she struck the shore a larger wave than usual overwhelmed her, and washed the coxswain overboard. A loud cry burst from those who witnessed this, and one or two daring fellows running into the surf up to their waists, nearly perished in their brave but vain efforts to grasp the drowning man.

FURBY did not struggle. He had been rendered insensible by the shock, and, although several ropes were thrown to him, and one actually fell over him, he could make no effort to save himself, as the waves rolled him inshore and sucked him back again.

At this moment the sound of horses' hoofs was heard on the sands, and my young friend, KENNETH STUART, dashed past us at full gallop into the sea!

KENNETH was a splendid and a fearless rider. He kept the finest horses in the neighbourhood. On this occasion he was mounted on a large strong chestnut, which he had trained to gallop into a foaming surf.

Checking his pace suddenly, when about knee-deep in the foam, he took up such a position that the next billow would wash the drowning man within his reach.

The wave came on. When about a hundred yards from the spot where the young horseman stood, it fell with a prolonged roar, and the foam came sweeping in like a white wall, with the dark form of FURBY tossing in the midst. The sea rushed furiously upon horse and rider, and the terrified horse, rearing almost perpendicular, wheeled round towards the land. At the same instant the coxswain was hurled against them. KENNETH seized the mane of his steed with one hand, and grasping FURBY with the other, held on. The noble charger, swept irresistibly landward, made frantic efforts to regain his footing, and partially succeeded before the full force of the retreating water bore back upon him.

For one moment he stood quivering with the strength of his effort. KENNETH was very strong, else he had never maintained his grasp on the collar of the coxswain.

A moment more, and the horse made a plunge forward; then a dozen hands caught him by bridle and saddle-girth, and almost dragged the trio out of the sea, while a loud cheer greeted their deliverance.

Few writers have rendered more important service to the life-boat cause than Mr. BALLANTYNE, and we now reprint a letter which he addressed to a contemporary a few weeks ago, detailing his experience on the Gull Light-ship which is moored off the Goodwin Sands. His communication is as follows:—

"Ramsgate, March 26, 1870.

"SIR,—The eye-witness of a battle from an unusual point of view may, without presumption, believe that he has something interesting to tell. I therefore send you an account of what I saw in the Gull light-ship, off the Goodwin Sands, on the night of Thursday last, when the *Germania*, of Bremen, was wrecked on the South-sand-Head. Having been an inhabitant of the Gull light-ship for a week, and cut off from communication with the shore for several days, I have been unable to write sooner.

"Our never-ending warfare with the storm is well known. Here is one specimen of the manner in which it is carried on.

"A little before midnight on Thursday last (the 24th), while I was rolling uneasily in my 'bunk,' contending with sleep and sea-sickness, and moralising on the madness of those who choose 'the sea' for a profession, I was roused—and sickness instantly cured—by the watch on deck suddenly shouting down the hatchway to the mate, 'South-sand-Head light is firing, sir, and sending up rockets.' The mate sprang from his 'bunk,' and was on the cabin floor before the sentence was well finished. I followed suit, and pulled on coat, nether garments, and shoes, as if my life depended on my own speed. There was unusual need for clothing, for the night was bitterly cold. A coat of ice had formed even on the salt-water spray which had blown into the boats. On gaining the deck, we found the two men on duty actively at work—the one loading the lee gun, the other adjusting a rocket to its stick. A few hurried questions from the mate elicited all that it was needful to know. The flash of a gun from the South-sand-Head light-ship, about six miles distant, had been seen, followed by a rocket, indicating that a vessel had got upon the fatal Goodwins. While the men spoke, I saw the bright flash of another gun, but heard no report, owing to the gale carrying the sound to leeward. A rocket followed, and at the same moment we observed the light of the vessel in distress just on the southern tail of the Sands. By this time our gun was charged, and the rocket in position. 'Look alive, Jack, get the poker,' cried the mate, as he primed the gun. Jack dived down the companion hatch, and, in another moment, returned with a red-hot poker, which the mate had thrust into the cabin fire at the first alarm. Jack applied it in quick succession to the gun and the rocket. A blinding flash and deafening crash were followed by the whiz of the rocket as it sprang with a magnificent curve far away

into the surrounding darkness. This was our answer to the South-sand-Head light, which, having fired three guns and three rockets to attract our attention, now ceased firing. It was also our note of warning to the look-out on the pier of Ramsgate Harbour. 'That's a beauty,' said our mate, referring to the rocket; 'get up another, Jack; sponge her well out, Jacobs, we'll give 'em another shot in a few minutes.' Loud and clear were both our signals, but four and a half miles of distance and a fresh gale neutralised their influence. The look-out did not see them. In less than five minutes, the gun and rocket were fired again. Still no answering signal came from Ramsgate. 'Load the weather gun,' said the mate. Jacobs obeyed, and I sought shelter under the lee of the weather bulwarks, for the wind appeared to be composed of penknives and needles. Our third gun thundered forth, and shook the lightship from stem to stern; but the rocket struck the rigging and made a low wavering flight. Another was therefore sent up, but it had scarcely cut its bright line across the sky, when we observed the answering signal—a rocket from Ramsgate Pier.

"That's all right now; sir, our work is done," said the mate, as he went below, and, divesting himself of his outer garments, quietly turned in, while the watch, having sponged out and recovered the gun, resumed their active perambulation of the deck. I confess that I felt somewhat disappointed at this sudden termination of the noise and excitement! I was told that the Ramsgate life-boat could not well be out in less than an hour. It seemed to my excited spirit a terrible thing that human lives should be kept so long in jeopardy, and, of course, I began to think, 'Is it not possible to prevent this delay?' But excited spirits are not always the best judges of such matters—although they have an irresistible tendency to judge. There was nothing for it, however, but patience, so I turned in, 'all standing,' as sailors have it, with orders that I should be called when the lights of the tug should come in sight. It seemed but a few minutes after, when the voice of the watch was again heard shouting hastily, 'Life-boat close alongside, sir. Didn't see it till this moment. She carries no lights.' I bounced out, and, minus coat, hat, and shoes, scrambled on deck just in time to see the Broadstairs life-boat rush past us before the gale. She was close under our stern, and rendered spectrally visible by the light of our lantern. 'What are you firing for?' shouted the coxswain of the boat. 'Ship on the sands, bearing south,' replied Jack, at the full pitch of his stentorian voice. The boat did not pause. It passed with a magnificent rush into darkness. The reply had been heard, and the life-boat shot straight as an arrow to the rescue. We often hear and read of such scenes, but vision is necessary to enable one to realise the full import of all that goes on. A strange thrill ran through me as I saw the familiar blue-and-white boat leaping over the foaming billows. Often had I seen it in model, and in quiescence in its boat-house—ponderous and ungainly—but now I saw it, for the first time, endued with life. So, I fancy, warriors might speak of our heavy cavalry as we see them in barracks, and as they saw them at Alma. Again all was silent and unexciting on board of the *Gull*. I went shivering below, with exalted notions of the courage and endurance of life-boat men. Soon after, the watch once more shouted, 'Tug's in sight, sir,' and once again the mate and I went on deck. On this occasion, the tug *Aid* had made a mistake. Some one on shore had reported that the guns and rockets had been seen flashing from the *Gull* and North-sand-Head light-ships, whereas the report

should have been from the *Gull* and South-sand-Head vessels. The single word was all important. It involved an unnecessary run of about twelve miles, and an hour and a-half loss of time. But we mention this merely as a fact, not as a complaint. Accidents will happen. The Ramsgate life-boat service is admirably regulated, and for once that an error of this kind can be pointed out, we can point to dozens—ay, hundreds—of cases in which the steamer and life-boat have gone straight as the crow flies to the rescue, and have done good service on occasions when life-boats unassisted would have failed,—so great is the value of steam in such matters. On this occasion, however, the tug appeared late on the scene, and hailed us. When the true state of the case was ascertained, the course was directed aright, and full steam let on. The Ramsgate life-boat *Bradford* was in tow far astern. As she passed us, the brief questions and answers were repeated for the benefit of JARMAN, the coxswain of the boat. I observed that every man in the boat appeared to lie flat on the thwarts except the coxswain. No wonder. It is not an easy matter to sit up in a gale of wind, with freezing spray, and sometimes green seas, sweeping over one. They were, doubtless, wide awake and listening; but, as far as vision went, that boat was manned by ten oilskin coats and sou'-westers. A few seconds took them out of sight; and thus, as far as the *Gull* light-ship was concerned, the drama ended. There was no possibility of our ascertaining more, at least during that night, for whatever might be the result of these efforts, the floating lights had no chance of hearing of them until the next visit of their tender. I was therefore obliged to turn in once more, at three A.M. Next forenoon we saw the wreck, apparently bottom up, high on the Goodwin Sands.

"On Friday morning the *Alert*—tender to the light-ships of this district, under command of the Trinity Superintendent, Captain Vaile—came off to us, and we learned the name of the vessel; that she was a total wreck, and that the crew, 7 men, had taken to their boat, and succeeded in reaching the South-sand-Head light-ship, whence they were almost immediately after taken by the Deal life-boat, and safely landed at Deal.

"It is to be carefully observed here that, although in this case much energy was expended unnecessarily, it does not follow that it is often so expended. Often—too often—all the force of life-boat service on this coast is insufficient to meet the demands on it. The crews of the various boats in the vicinity of the Goodwin Sands have even been called out more than once in a night, and they are sometimes out all night, visiting various wrecks in succession. In all this work the value of the steam-tug is very conspicuous; for it can tow its boat again and again to windward, and renew the effort to save life in cases where, unaided, life-boats would be compelled to give in. Embarking in the *Alert*, I sailed round the wreck at low-water, and observed that the Deal luggers were swarming round her like flies—the crews stripping her bottom of copper, and saving her stores, while, apparently, hundreds of men were busy upon her deck, dismantling her shattered hull.

"This, after all, is but an insignificant episode of wreck on the Goodwins. Many wrecks there are, every year, much more worthy of record, but this is sufficient to give a general idea of the manner in which our great war with the storm is conducted—the promptitude with which relief is rendered, and the energy with which our brave seamen are ready to imperil their lives almost every night, all round the coast, and all the year round.—I am, &c.,

"R. M. BALLANTYNE."

THE LATE MR. CHARLES CLIFFORD.

THE gentle CHARLES CLIFFORD, who, after years of severe suffering, passed away a short time since, deserves a few words in the pages of *The Life-boat Journal*, where the great value of his invention for Lowering Ships' Boats had first been prominently brought under public attention, and where it had subsequently been repeatedly noticed in terms of deserved commendation. Since then some hundreds, if not thousands, of lives have been saved from an inevitable death by his plan.

He was a man who possessed considerable talent, and his assiduity was ceaseless. He was also a remarkable illustration of what could be accomplished by a single individual in perfecting an apparently intricate, if not dangerous apparatus, and rendering it ultimately so simple in its operation that even a cabinboy could work it with as much ease as the most stalwart sailor on board ship. Thus he resolved to devote his whole energies to improving the old system of lowering boats, by which so many lives were sacrificed.

In maturing his invention he soon found that his great difficulty was to control at will a large descending weight, and after a course of laborious experiments, extending over many years, in which every known appliance of mechanical power was ineffectually tried, he perfected an invention so complete and simple that at any moment, and under any circumstances, an ordinary sailor, by means of a single rope, could with ease and rapidity lower and release a boat, fully manned and weighing three or four tons, in a few seconds.

The great feature in his plan was the invention of a new block, by means of which the resistance to the descending weight was measured by the weight itself; and the whole mechanical arrangement was considered so valuable in science, that the Institution of Civil Engineers and the Society of Arts requested him to read papers on the subject at their Meetings, for which he received the thanks of these important Societies.

The NATIONAL LIFE-BOAT INSTITUTION, by a special vote of thanks dated 5th Jan., 1860, inscribed on vellum and signed by Admiral ALGERNON, Duke of NORTHUMBERLAND, its President, acknowledged the great value of his invention in the following terms :—

“ That the thanks of the ROYAL NATIONAL LIFE-BOAT INSTITUTION be presented to CHARLES CLIFFORD, Esq., in acknowledgment of his able and indefatigable exertions in inventing and bringing to a state of perfection an improved plan for safely lowering boats at sea, which is now being brought into general use, and through the instrumentality of which a large number of lives have already been saved from drowning.”

Long previously and subsequently his interest in the welfare of the Institution never ceased; and he often rendered it substantial support.

Several of the maritime Powers of Europe also recognised the importance and utility of his invention; and the late Captain Sir WM. PEEL, R.N., K.C.B., never failed to speak of it, from practical experience, in high terms of eulogy. Before the screw steamer frigate *Shannon* sailed from Plymouth, Sir WILLIAM made a special application to the Admiralty that two of her boats might be fitted with CLIFFORD'S apparatus. On the *Shannon's* way to the Cape two fatal accidents on board occurred. Mr. COAKER, master's assistant, fell from aloft, struck the fore-chains, and fell dead into the water; and the other, GEORGE BROWN, a boy of the first class, who fell from aloft inboard, and was killed. But for the admirable facility afforded by “CLIFFORD'S Plan of Lowering Boats,” with which the frigate was fitted, the body of the unfortunate young officer could not have been recovered, nor the life of another boy, who fell overboard, have been saved. On both occasions the vessel was going at from eleven to twelve knots under all sail; notwithstanding which the boat was manned and lowered in little more than a minute. The boats were 30-feet cutters; the largest hung from man-of-war davits, and carrying each from 12 to 14 men, with a weight of from two to three tons.

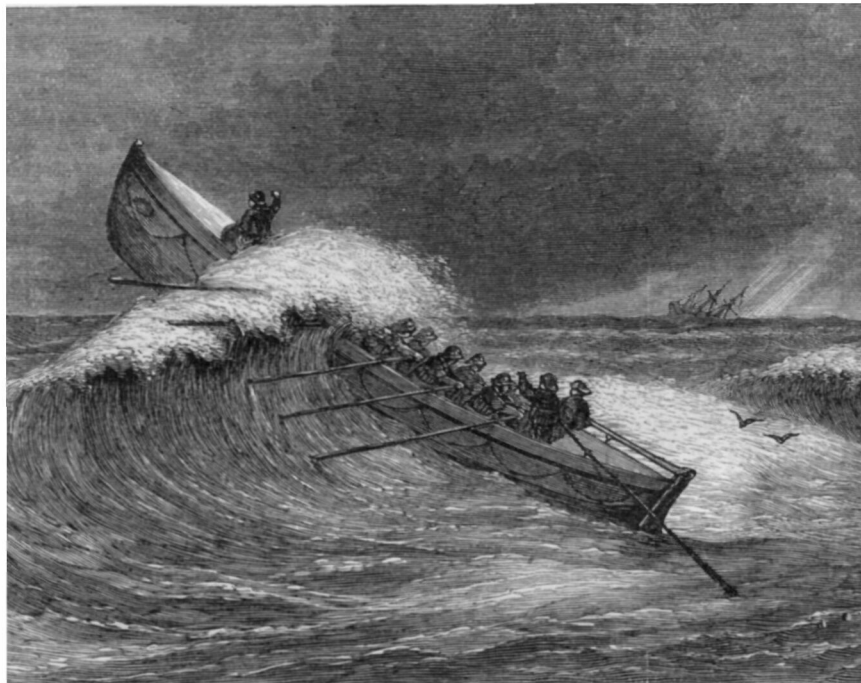
Thus instances might be multiplied of the

successful results of the plan, whether with a boat-load of women and children from the burning wreck of the *Sarah Sands*, collisions in the dead of night, men overboard in a gale, or snatched from the jaws of a shark (as with the *Archer*). In short, wherever a boat could live, it might be launched with his plan in ten seconds, without rounding-to, as in the old plan.

Mr. CLIFFORD often risked his life where no sailor would go, in order to show the marvellous simplicity and safety of his plan; and though he lived to see his invention used in most of the navies of the world, and to hear recorded instances of the saving of hundreds of lives, yet the coldness he received from the Government, and quarters that ought to have afforded him every encouragement, was more at last than his frame could bear. He was struck down by paralysis a few years ago, from which he never rallied, his great services, extending unceasingly over sixteen years, to the cause of humanity, which had cost him thousands of pounds, remaining to this day unrewarded by his country; but, happily, the name of CLIFFORD in the Royal and mercantile navies has become a household word, and to be thus cherished and remembered by those who know the practical value of his invention is, perhaps, after all, the best memorial to his name.

As a promoter of aquatic sports, and an authority on training, he was no less popular on the Thames than in the navy. He could hold his own as a sculler, and show many silver cups when the veteran Coombes was champion and Playford held the silver sculls. Coombes would sometimes ask him to strip his arms, that professional trainers might see what temperance and strict diet could do. His courage and readiness were remarkable. Returning on one occasion through Chelsea Reach in the dusk after a pull, a steamer, crossing to her moorings, without light or signal, suddenly came on him. Escape seemed impossible; but CLIFFORD dived under the steamer unhurt, whilst his outrigger was cut in half as with a knife. His brave and generous nature made him a great favourite with men of every rank; and many will long cherish the memory of the gentle and benevolent CHARLES CLIFFORD, the inventor of the “Ship's boat Lowering Apparatus,” and the promoter of aquatic sports on the Thames.

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



PADSTOW, CORNWALL.—On the night of the 24th October, 1868, during a whole gale from the W.N.W., the steamer *Augusta*, of Bristol, went on the Doom Bar Sand. When her signals of distress were seen from the shore, the "City of Bristol" life-boat, *Albert Edward*, was quickly taken to the spot, and with her assistance, and the aid of a line sent on board the vessel by means of the Rocket Apparatus, hawsers from two capstans on shore were got out to her, and she was prevented from falling to leeward on the sand. The hawsers parted several times, but, with the prompt assistance of the life-boat and other means, they were quickly connected again, and ultimately the steamer was got off and taken up to the quay in safety, without having sustained much damage.

Again, on the 15th Jan., 1869, this life-boat put off, during a W.N.W. gale, and in a very heavy sea, to the brigantine *Thomas*, of Poole, which was near Stepper Point in imminent danger. On arriving alongside, it was found she had on board, in addition to her own crew, eight men belonging to a shore-boat which had gone off to the vessel

and been capsized by the tremendous seas. Without delay the life-boat took off the fourteen men from the brigantine, which went on the Doom Bar, and became a total wreck. The poor fellows had only just been landed, when the services of the life-boat were again called into requisition, the schooner *Alexandrine*, of Pornic, having also gone on the same fatal sandbank, and becoming a total wreck. The determined life-boat men promptly responded to this further call, and were the means of saving the schooner's crew of 6 men—only just in time, for they were scarcely taken off before a huge wave broke over the vessel almost half-mast high. The Inspecting Officer of Coast Guard, who was an eye-witness of these services, reported that the life-boat was managed most admirably, and that the greatest credit was due to the coxswain and the whole of the boat's crew. WILLIAM CORKHILL, one of them, jumped overboard from the life-boat, and cleared a floating rope from the shore, which, having got foul of the rudder, and getting fastened there, endangered the safety of the boat.

PORTHDINLLAEN, NORTH WALES.—On the 29th Oct., 1868, during a hard gale, a smack, which was riding heavily in a dangerous position outside the roadstead, hoisted a signal of distress. The *Cotton Sheppard* life-boat was launched, and proceeded out, when it was found that the vessel was the flat *William*, of Carnarvon, and that she was short handed. Four of the life-boat men then went on board, got the vessel under weigh, and navigated her, with her crew of 2 men, safely into harbour. But for this help the vessel would probably have become a total wreck, with the loss of those on board.

NEW BRIGHTON.—During a strong gale, on the night of the 3rd November, the ship *Grand Bonny*, of Liverpool, went ashore opposite the Waterloo Coast Guard Station. She exhibited blue-lights and other signals of distress, and on their being observed, the *Willie and Arthur* tubular life-boat promptly went off to her through a heavy sea, and, at the earnest request of the Master, remained alongside all night in readiness to save the crew should the ship go to pieces, which, however, was fortunately not the case, and at low water the vessel was left high and dry.

WEXFORD, IRELAND.—A ship was observed in distress on the Long Bank, during a southerly gale, on the 25th November. The *St. Patrick* life-boat went off to her, and found she was abandoned. Afterwards she floated off the sands, but capsized as she was about to be boarded by the life-boat men. However, the steam-tug *Ruby*, of Wexford, coming to their assistance, they were enabled to tow the wreck into the South Bay at Wexford. It proved to be the barque *Mauda*, of Liverpool, bound to that port from Lagos with a valuable cargo of palm oil, &c.

CULLERCOATS, NORTHUMBERLAND.—Thirty-one fishing-cobles belonging to this village were out on the 30th Sept., 1868, when the sea rose, causing them to run for Cullercoats; but, on approaching the bar, it was found they could not attempt to take it without great risk. The inhabitants, both men and women, being alarmed, urged the coxswain of the *Palmerston* life-boat to launch her to the assistance of the cobles, which was done; and her presence on the bar, ready for any emergency, enabled the cobles to run in, in safety. Again, on

the 20th October, the life-boat was taken out to the help of a fishing-coble, which was the only one that had ventured out, on account of the weather, and which was prevented from returning by the heavy seas breaking over the bar. The crew being nerved by the presence of the life-boat, however, the attempt was made, and the bar crossed in safety. It was considered a very daring action, even when the life-boat was on the spot.

THORPENESS, SUFFOLK.—During a gale of wind from S.W., on the 2nd January, 1869, the brig *Belle*, of Sunderland, was totally wrecked on Sizewell Bank. The life-boat *Ipswich*, which is stationed at Thorpeness, was launched with all practical speed, and happily saved the crew of 9 men, the boat behaving very well in the broken water on the sand. Again on the 8th February, the same valuable boat saved the crew of 8 men from the barque *Selina*, of Falmouth, which was wrecked near the Misner Haven Coast-guard Station, during a strong S.W. gale, and in a heavy sea. Attempts had previously been made to rescue the crew by means of the Rocket Apparatus, but without success. Since the *Ipswich* was placed here in 1862, she has saved the crews of the following wrecks:—Barge *Henry Everest*, of Rochester, 4 men saved; S.S. *Osprey*, of Hartlepool, 6; brig *Florence Nightingale*, 6; smack *Leader*, of Harwich, 1; brig *Belle*, of Sunderland, 9; and barque *Selina*, of Falmouth, 8; total lives saved, 34.

CAISTER, near GREAT YARMOUTH.—A foreign ship was observed in a perilous position off this place, during a heavy S.S.W. gale, on the 3rd January, 1869, and on her hoisting signals of distress, the life-boat *Birmingham* put off with the promptitude and skill which invariably characterise the movements of the Caister beachmen. The foreigners seeing the vessel of mercy approaching, renewed their exertions to save their ship, and ultimately worked her off the sands.

As the Caister life-boat was returning to the shore, the brig *Elizabeth*, of Blyth, was seen on the south part of the Cross Sand with a signal of distress flying. Approaching her, they saw the ship's boat in the midst of the breakers on the sand, and, making all speed, they found the crew of the vessel in her, and saved them, 8 in

number, from their imminent peril. Some of the poor fellows were only half clothed, and their boat was almost swamped, for it had nearly filled and must soon have sunk.

On the 15th February, the same life-boat was taken to the assistance of the barque *Eliza Caroline*, of London, bound from Sunderland to Carthage, with a cargo of guns, ammunition, and coke, which went ashore on the West Scroby Sands during blowing weather. With the aid of the Scratby life-boat the vessel, which was very leaky, was got off the sands, and by working hard at the pumps she was kept afloat and taken to Yarmouth. The crew, with the exception of the master and mate, had previously gone ashore in a yawl.

On the 22nd February, this noble life-boat was again out on service, and saved the crew of 20 men from the ship *Hannah Patterson*, of Bergen, which parted from her cables, and drove on shore on Yarmouth Beach during a strong N.E. wind.

The small life-boat—the *Boys*—at Caister, also did good service on the 29th April. The iron screw-steamer *Lady Flora*, of Hull, went ashore amidst the heavy breakers whilst the wind was blowing strong from the E.N.E. On her showing a signal the life-boat went off to her, and remained by her till the following day, when she returned to her station. The men had some dangerous work to get to the steamer amidst the breakers, and one of them was seriously bruised by the oar which he held being violently driven against him and broken by a tremendous wave which dashed over the bow of the boat.

GREAT YARMOUTH.—During a southerly gale and in a heavy sea, on the 3rd Jan., 1869, the Yarmouth beachmen observed a vessel apparently on the Scroby Sands. The large life-boat, the *Mark Lane*, was at once launched and taken in that direction, but when near the ship it was seen that she was clear of the sands, and did not require the services of the life-boat. A mast was then noticed above water on the Cross Sands, and the life-boat proceeded towards it, and found that it belonged to a sunken smack, but no persons were observed on the rigging or near the spot. The brig *Elizabeth*, of Blyth, was also seen on the same sand with a signal flying; but while the life-boat was on her way to her the crew left in their small boat, and were

picked up by the Caister life-boat, as already stated. The life-boat was then returning to the shore, when a barque in the roads was observed to have a signal displayed. On boarding her she was found to be in a sinking state. Her anchors and chains were then slipped, and to save the vessel she was run on the beach. The life-boat then took off part of the crew, and after some of the cargo had been thrown overboard, and the pumps had been worked, she was got off and taken into Lowestoft Harbour, with the life-boat in attendance. She was the barque *Fieremosca*, of Genoa, bound from Grimsby to Alexandria, with a cargo of coals.

The same life-boat also went off on Sunday, the 31st of January, to the assistance of the barque *Liebertas*, of Genoa, which was bringing up in the roadstead during very heavy squalls from the S.W., when her cables parted, and she went on the Scroby Sand, and at once hoisted a signal of distress. On reaching the vessel part of the crew at once jumped on board the life-boat, which remained alongside until the evening, when the remainder of the crew, numbering altogether 13 men and a pilot, were taken into the boat and brought safely ashore. The surf life-boat at Yarmouth, named the *Duff*, was also launched on the 20th March during a heavy N.E. gale, and was instrumental in saving the crew of 4 men from the brigantine *Cherub*, of that port. When first seen, the vessel was running through the roads with a signal of distress flying in the rigging. She was evidently in a sinking state, and was being steered for the shore. Before the life-boat could be got to her she took the beach near the old jetty, and quickly sank when the heavy seas broke completely over her. It was not without much difficulty the boat was able to rescue the shipwrecked crew, who were taken off in a very exhausted state.

RAMSGATE.—The schooner *Gaspard*, of St. Malo, was wrecked on the Goodwin Sands on the 3rd Jan., 1869. The Ramsgate life-boat *Bradford* went off, in tow of the harbour steam-tug *Aid*, on signals being fired from one of the light-ships, and on arriving at the Goodwin they perceived the schooner lying on the sands. The sea was very rough, a violent gale blowing at the time, and to get at the schooner the life-boat was run on to the

sands. Six of the boat's crew then got on to the sand and walked to the vessel with great difficulty, in many places passing through deep water. They found only the master on board, whom they rescued. He stated that the crew, 5 in number, had taken to their own boat, which drifted away. The life-boat men laboured for two hours before they could get their own boat off the sands. It is believed the schooner's crew were fortunately picked up by a passing vessel.

The life-boat and the steamer also went out on the evening of the 14th January, in reply to signals and rockets fired from the *Gull* light-ship, during very threatening weather. On speaking the light-vessel, the men were informed that the signals had been made in consequence of a large light having been seen in a south-easterly direction. After searching some time, the wind having increased to a fresh gale with a heavy sea on, which frequently broke over the steamer and boat, a vessel was discovered ashore. The life-boat having been cast off from the steamer, made her way across the sand, through the broken sea, to the ship. She was found lying athwart the tide, with her head to the eastward and all sails set, the sea making a complete breach over her. After some difficulty the boat got alongside, but the master declined the help of the life-boat's crew. Soon after, the vessel came afloat with the rising tide, and at the master's request a hawser was with much difficulty got on board her from the steamer, the sails were clewed up, 4 of the life-boat men were put on board, and her cable was made fast to the ship. She was then towed a short distance, but was found to be rapidly filling, and the life-boat was hailed to take out the hands as fast as possible. With very great difficulty and much risk, the vessel fast sinking, and the heavy seas breaking over her, all on board—7 in number—were saved by the life-boat. The cable of the boat had then to be cut, and the vessel soon after sank. She was the schooner *Chaften-winkel*, of Aalborg, and was bound from Hartlepool to Lisbon, with a cargo of coals. The steamer and life-boat, with the shipwrecked men, arrived safely in Ramsgate Harbour at about two o'clock the next morning.

Early on the morning of the 24th January, during blowing weather and in a very hard frost, this noble boat and her consort were again the means of rendering good service to a shipwrecked crew. They went out in

ready response to signal-guns and rockets fired from the *Gull* light-ship, and discovered the barque *Lady Westmoreland*, from Newcastle, ashore, but she did not require their assistance, being enabled, with the help of another steamer and some luggers, to get off the sands. They afterwards found the brig *Carl*, of Rostock, had stranded and was likely to become a total wreck; her crew of 7 men were accordingly taken into the life-boat and landed in Ramsgate Harbour.

Also, on the 12th February, the life-boat and steamer were again off in reply to signals of distress from ships in the neighbourhood of the Goodwin Sands. The wind had shifted from a southerly to a north-westerly direction, and in a few minutes a terrific gale sprang up, which eventually became a perfect hurricane. On reaching the Goodwin, the life-boat men found a large barque on shore on the North-West Spit. The sea was very rough, making a complete breach over the vessel, and the life-boat could not then get alongside of her. She accordingly cruised about for a while, and shortly after midnight repeated the attempt to get alongside the barque, but again without success. About three o'clock, the ship being nearly to pieces, she made a third attempt, and this time succeeded. The vessel proved to be the *Highland Chief*, of London, bound from Shields for Carthage, with a cargo of coals and cinders. Five of the crew had got into a boat and endeavoured to save themselves, but were supposed to have perished. The remainder of the crew (11 in number) and the pilot were taken on board the life-boat, which proceeded back to Ramsgate in tow of the steamer. As they were returning they fell in with an abandoned schooner, the *Tavistock*, of Plymouth, which they succeeded in bringing safely into harbour.

Another vessel—the schooner *Pride of the West*, of Penzance—on the 11th March, also went ashore on the North-West Spit, while the wind was blowing strong from the N.E. The life-boat and steamer went to the assistance of the crew, on their burning a tar-barrel as a signal of distress. The boat was towed to windward of the vessel and slipped, when sail was made, but when about fifty fathoms from the ship the life-boat struck the sand heavily and grounded, the sea breaking fearfully over her. Her noble crew, however, remained undaunted, and soon afterwards the falling tide caused the *Bradford* to become hard and fast on the sand, the crew of the stranded ship

meanwhile shouting for assistance. After some difficulty a line was got from the vessel to the life-boat, and a hawser hauled into the latter. A number of the life-boat men then plunged into the sea and waded through the heavy surf, with the assistance of the cable, and boarded the ship. The master at once requested them to do their best to save the lives of his crew, and the vessel if possible, the wind then blowing a gale from N.E., and much sea breaking on the sand. As the tide flowed the pumps were occasionally kept going, and sail was made to force the vessel over the sand, but without success. The anchor was then let go under foot to bring her head to the northward, the vessel striking very heavily and there being too much surf for the steamer to approach. After great labour and risk their efforts were rewarded, for she was taken in tow by the steamer and brought into Ramsgate harbour, the pumps going occasionally.

TEIGNMOUTH, DEVON.—On the 4th January, 1869, the trawler *Start*, of Brixham, was observed trying to beat to windward to obtain the shelter of Babbicombe Bay, a gale blowing at the time from the S.W., with a considerable sea. Just then she lost her mast in a squall, and thereupon the life-boat *China* was launched with the greatest promptitude, and proceeded to her assistance, being about two miles dead to leeward at the time. Shortly after the boat was launched, the men were observed to leave their vessel, and the life-boat made all speed towards them, and after a long and heavy pull rescued the crew of 4 men, who were much exhausted. The life-boat now started for home, but after nearly one hour's hard pulling the crew found they could make no headway against the gale and tide, so bore up for Dawlish, where they landed amidst the cheers of hundreds of people. A steamer had during this time proceeded to the wreck, placed men on board, and got a tow-line made fast; but hardly had she begun to tow her ahead, when the smack went down stern foremost, in consequence of the great damage she had sustained from the fall of her mast. The poor shipwrecked men, on reaching home, wrote to the Local Life-boat Committee to express their heartfelt gratitude for the valuable assistance thus afforded to them by the life-boat.

SOUTHWOLD, SUFFOLK.—On the morning of the 15th January, a man ran from Dunwich to Southwold to the house of the

coxswain of the life-boat of the National Institution, and informed him that a boat was driving down from Dunwich with men in her, and was fast approaching the breakers on the shoal. At the time a strong gale was blowing, and a heavy sea was running on the bank. The coxswain immediately collected a crew and proceeded to launch the large life-boat, and after the boat had twice been filled with water and driven back on the beach, they succeeded on the third attempt in getting her afloat, and proceeded towards the shipwrecked people, whose boat was then close to the breakers on the Dunwich side of Southwold Pier. The life-boat succeeded in taking off and safely landing the shipwrecked men, who proved to be the master and 3 men of the schooner *Lord Coke*, of Middlesborough, bound to London with a cargo of bricks, which vessel had struck and foundered on the Sizewell Bank. If the men had not been rescued when they were, every one of them would most probably have perished.

LOWESTOFT, SUFFOLK.—On the 29th January, during a south-westerly gale, the coal-laden brig *Queen of the Tyne*, of South Shields, went on the Corton Sand. The life-boat *Latitia* promptly proceeded off to the scene of the wreck, and on reaching the spot found the vessel on her beam ends, with the crew of 8 men in the weather main rigging. From the position in which the vessel lay, it was a work of great risk to board her, she being on the most dangerous part of the sand, and the seas being very heavy, making a complete breach over her. However, the rescue was safely and nobly accomplished, the men being taken into the boat from the maintop gallant yard, which at times it was feared would have gone through the boat, as she and the vessel rose and fell together. It was a most narrow escape for the poor shipwrecked men, for they would probably all have been lost as the flood tide made, had not the life-boat gone out to them so promptly.

Another vessel went ashore on the same sands during a gale from the S.W. on the 1st February. The *Latitia* went off to her, but on arriving alongside, it was discovered that she had been abandoned by her crew. The men, however, found a dog and a cat in the cabin, and they brought them ashore in the life-boat. The vessel's crew, it afterwards appeared, had fortunately succeeded in reaching Yarmouth safely in their own boat.

SIGNALS FOR LIFE-BOAT STATIONS.

THE want having been often felt of some general system of signals for intercommunication, on occasions of shipwreck, between life-boat stations when within signal distance of each other, the Committee have caused the following simple plan to be prepared, and have supplied the various stations of the Society with the necessary rockets, signal lights, flags, and flag-posts, for carrying the same into effect.

It will be readily conceived that the circumstances attending shipwrecks and life-boat service are such as to make any complicated or extended system of signals for use on such occasions altogether impracticable, and that the extremest brevity and simplicity are indispensable.

In preparing this sheet of signals that fact has been borne in mind, and no more has been attempted than is absolutely necessary, or than can be readily practised by an undisciplined body of men, such as the fishermen and other boatmen who, for the most part, form the life-boats' crews on our coasts.

A circular letter has been sent to each life-boat station, with the following description of the signals and the means for making them:—

"To enable the accompanying system of signals to be carried into effect, you will in a few days receive a Tin Box, containing 12 Red and 12 Green Meteor Rockets, 12 Red and 12 Green patent red hand Signal Lights (with 2 dischargers for igniting them by percussion), and 6 common fuseses or portfires.

"Also a bundle of staves for the rockets, a portable tripod stand from which to fire them, and two red flags, one for use ashore, the other for the boat, to be always kept in her.

"The Rockets burst with a red or green star, which remains alight for about 15 or 20 seconds. In discharging them, the thick-pointed end of the staff must be pushed hard into or through the socket at the side of the rocket to prevent the latter leaving the staff and spoiling its flight. They should be thrown up perpendicularly.

"The Hand-lights ignite by a blow at the end of the discharging handle, which drives a wire needle into them. They will burn for about three-quarters of a minute.

"The Port-fires have to be lit with a common match or fusee, and will burn about 15 minutes.

"The Rockets and Hand-lights will be painted the same colour as that which they exhibit when ignited, so that they may be readily distinguished when required for use.

"There are two dischargers sent, so that one can be used in the boat, and the other on the shore.

"The Tin Box should be kept in a dry spot, in the loft, and one of the keys might be hung up there, and the other at the Coxswain's house.

"To the Honorary Secretary of the

" _____ Branch."

With a view to give information to neighbouring life-boat stations when they are within short distances of each other, and also to vessels in distress, the Committee of the Institution have directed that the following Signals be in future adopted:—

PRELIMINARY—

RED to signify a danger seen requiring help.
GREEN to signify that help was about to be, or has been, afforded.

NIGHT SERVICE—

1. On a vessel being seen on shore or in danger, or signals of distress from any vessel being observed, or on Rockets being thrown up from any light-ship, two Rockets, bursting with a Red Star, to be thrown up at two or three minutes' interval at a life-boat station. To be answered by a Red-Star Rocket.

This signal would serve the double purpose of informing the adjoining life-boat stations that the danger was seen and the life-boat about to be launched, and of intimating to the crew of the endangered vessel that help was preparing for them.

2. As soon as the life-boat has been launched, a Rocket bursting with a Green Star to be thrown up.

This signal would inform the adjoining life-boat stations that the life-boat was on its way to the wreck.

3. On arriving near the distressed vessel, a Red Percussion Hand-light to be displayed by the life-boat.

This would show to the life-boat stations on shore that the life-boat had arrived at the vessel, and would likewise inform those in distress that help was close at hand.

4. If in consequence of there being a larger number of persons in the vessel than could be taken into the life-boat, or of any accident to the latter, further aid should be required, then the life-boat to continue to burn Red Hand-lights, at short intervals, until answered from the shore by a Red Hand-light or Red-star Rocket.

5. On the safe arrival of a life-boat with the whole or part of a wrecked crew on shore, a Green Hand-light, or Green-star Rocket, to be shown at the station, or at the place of landing.

This would inform the adjoining life-boat stations that the whole or part of the shipwrecked men had been safely landed.

DAY SERVICE—

A Red Flag to be substituted for the Red Lights and Red-star Rockets, and a Wheel for Green Lights and Green-star Rockets.

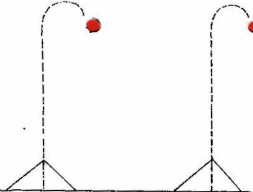

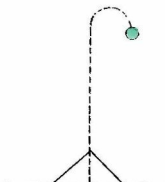
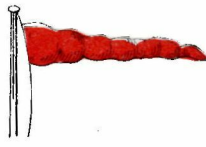




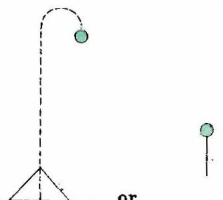
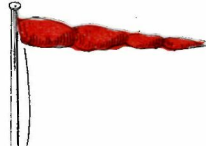
NOTE.—Rockets are not sent to all stations, but only to those where they are considered to be necessary.

JULY 1, 1870.]

THE LIFE-BOAT REGULATIONS.

ROYAL NATIONAL LIFE-BOAT INSTITUTION.

LIFE-BOAT SIGNALS.

SIGNIFICATION.	NIGHT.	DAY.
<p>1.—DANGER SEEN. <i>(To be answered from adjoining Stations as soon as observed.)</i></p>	 <p>Two Red-Star Rockets.</p>	 <p>A Red Flag.</p>
<p>2.—LIFE-BOAT LAUNCHED.</p>	 <p>One Green-Star Rocket.</p>	 <p>A Wheft.</p>
<p>3.—ARRIVED AT WRECK.</p>	 <p>One Red Hand-light.</p>	 <p>A Red Flag.</p>
<p>4.—MORE AID REQUIRED.</p>	 <p>A succession of Red Hand-lights.</p>	 <p>A Red Flag.</p>
<p>5.—SAFELY LANDED.</p>	 <p>A Green Star-Rocket, or Green Hand-light.</p>	 <p>A Wheft.</p>

Numbers 1, 2, and 5, to be exhibited on the Shore. Numbers 3 and 4, from the Boat.

RESCUE OF LIFE BY SWIMMING, AND EXPERIMENTS THEREON.

THE accompanying Paper is translated from some interesting remarks published, under authority, by M. FERRAND, druggist and Member of the Lyons Board of Health. He was deputed by the French Government to re-organize the system of life-buoys in that country, the insufficiency of which had too often been made palpable. With this view he procured, both in France and foreign countries, the most complete description of the different apparatus employed:—

“While looking” (says M. FERRAND) “at the great display of the resources of civilized nations, works in art, inventions, machinery, government grants, associations, and international congresses, my subject leads me to speak of a feat which, to my mind, has a peculiar magnificence,—I mean rescue by a single man, without life-belt or rope, but stripped for the emergency; the man who, with no aid but his own courage, throws himself into the waves to save the life of a fellow-creature at the risk of his own life. The difficulty of this operation is generally very great, but it appears to me to be increased to an enormous extent, so as to render abortive many attempts, through ignorance of the best method of accomplishing the rescue of a drowning person, and to bring him easily and safely to the shore, by swimming only.

“I have frequently questioned retired boatmen of the Rhone, Saône, and elsewhere, all tried men for courage and skill, and their unanimous reply has been: ‘A drowning man must be taken hold of as best possible: you are lucky if you can simply support him, if a boat or a rope is seen at hand; in the absence of these you must either push him on before you, or drag him, according to circumstances.’ But, I answered, what happens if you are unable to hold the head of the drowning man long enough out of water? ‘Suffocation takes place while he is in your hands.’

“The method which has most interested me is that performed by an Englishman named HODGSON, of Sunderland; and after having experimented on and developed it, I recommend it for its precision and efficacy. It consists in holding the drowning man by the hair, and turning him on his back. Then the salvor turns over rapidly with his face upwards, places the head of the man on his breast, and thus swims to land. This method is so simple and easy, that in an experiment which I had the pleasure of making this autumn with my friend Dr. BRON, I was able with ease to practise simultaneously the rescue of two persons more or less motionless. One of them did not know how to swim, and that was a great difficulty, for he grew stiff with fear, lost the floating-line, so important to aid us in advancing, and hindered me considerably by lying along my side like an immovable oar on the side of a boat.

“The drowning man, then, should be held with the left hand, his face, and his face only, being out of water. If he is bald, support him by the beard or chin, or even by the top of his coat collar (for generally the drowning are clothed). Keep your right hand free to help you in swimming, or to

take more secure hold of ropes or boats, if any be near, for if the shore cannot be gained, you can support yourself thus in the water for several hours, waiting for the assistance which the ebbing tide, the currents, or the neighbourhood of rocks render necessary.

“I have thus examined the easiest case, that of the fainting, or at least motionless drowned man; but I will next discuss the case which I have found full of anxiety, and not free from uncertainty—that of saving a drowning man who, without help, must certainly die, and who, in distraction, struggles with the energy of despair. All English and other rescuers invariably answer, ‘Don’t touch him; the sacrifice of your life will be useless: wait till he becomes calm; which happens after the first spasm.’ This waiting may be prudent up to a certain point, but it appears to me particularly cruel. If two hours of care and effort are sometimes necessary to restore a drowned man to life, it often requires but a minute to make him a dead man. The desperate clutch of the dying man undoubtedly has its dangers, but only if you allow yourself to be seized first; and otherwise it is not really as insurmountable as is believed. As man loses consciousness, he gradually releases his hold of the object which he has seized with his clenched hand. Thus, then, from this first point of view there is an exaggerated fear which may cause the loss of a precious moment, as I have just remarked, and with it, the certainty of success; a moment so precious, that in a deep and agitated sea the shipwrecked man may disappear under your very eyes, almost within arms’ reach, without any possibility of his being found again. I object, then, to that excessive prudence which is recommended, as it may be attended with serious consequences. How agreeable would it be to me to blot out from the vocabulary of rescuers the cruel ‘Don’t touch him.’

“But protesting is not everything: all life is precious; and if the difficulty is not absolute, according to my first statement, it is not the less continuous. How, then, can it be most wisely encountered?

“Don’t let yourself be seized, I said; but I must add, be ready to seize the drowning man rapidly from behind him, and at two points simultaneously, to render his body, as far as possible, motionless. Keeping the face out of water, seize him at the same time by the hair with the left hand, and by the right shoulder with the right hand. Thus keep him at a distance, your arms extended in front, and your body in an upright position; then take care of his right arm, and if he throws himself about, if he seeks a point of support which may prevent your turning him on his back, seize this arm below the wrist, because that is the part easiest to take firm hold of, and place it forcibly on your left hand behind his head. Very quickly, as will easily be conceived, the two hands of the dying man will fix themselves instinctively on the left hand of the rescuer. If the case is otherwise, if the hands of the man are fastened closely on the side of him who comes to snatch him from death, it does not matter. The rescuer is bound not to return alone. His head is kept free from all surprise, and his legs are out of reach. Really, it is in consequence of the formidable ardour of the drowning man in seizing on the trusting hand which first approached him, or the leg or sides which come within his reach (in order to throw himself finally on the neck of the rescuer, as if his head were a safety-buoy), that the measures and precautions which I have just described are all indispensable. Under these conditions the rescue will probably be no longer obstructed.

"When the drowning man has sunk to the bottom, he often reappears once or twice on the surface, and by that time, when he is reached, his exhausted strength renders him by no means dangerous; and in all cases, the muscular relaxation having destroyed all his tightness of grasp, the process of taking him to land has no longer the violent character of which I have just spoken. If the man you are saving is conscious, encourage him, sustain him a minute with your outstretched arm while taking hold of him by one of the arm-pits; tell him to keep his legs stretched out, as you are going to place his head on your breast, and carry him off in complete safety.

"But the third situation, which causes me most anxiety, is that of the man who dives, and who, by reason of the refracting medium in which he finds himself, distinguishes only with difficulty, that is from close quarters and like a cloud, the uncertain shape of the drowning man, who is moving about at the bottom of the water; he may then be surprised and seized at random, for the drowning one sees no better, and is, moreover, perfectly unconscious. The judicious boldness of the rescuer must then make him consider the time that passes away, for the danger exists only during the first moments; and in this most difficult case, if there is any resistance, the diver must confine his exertions to thrusting the man to the surface, in order to take hold of him with more certainty and strength after he has breathed.

"It is not, then, without reason that I persist in saying that, however perilous be the situation which has come about, the proceeding which consists in taking hold of a drowning man, who is unconscious, or who has not come to his full senses, or even of one who is in the last convulsions of death, is perfectly and readily practicable.

"To enforce my convictions on this point, I invite the reader to follow for a moment the narration of the experiences and calculations which I subjoin. It is well known that a body plunged into the water has its weight diminished by a quantity equal to the weight of the quantity of water displaced by the body; let us see what is the quantity of water displaced by the drowning man, and consequently what is the difference in the weight to be supported by the rescuer. According to my experience, an adult, weighing 75 kilogrammes,* displaces 73 litres, and therefore weighs no more than 2 kilos when it is entirely submerged. If the head is out of water, the volume of water displaced is necessarily less, and the total weight borne is augmented by from 4 to 6 kilos. In both cases this is a weight easily borne, undoubtedly varying with different persons; a weight that can be still further reduced, as I will proceed to show. I have found the weight of a human head of middling size to be $4\frac{1}{2}$ kilos; plunged into water, it displaces exactly 4 litres = 4 kilos in weight. So there was only this weight of $\frac{1}{2}$ kilo to keep the head at the bottom of the water; and consequently a force of $\frac{1}{2}$ kilo employed to support the head would keep it at the top of the water.

"I have said that this quantity, little at the most, was certainly a little variable according to the individuals and their ages; for with young subjects, or those who are lean and withered, the specific gravity is a little higher, but it may be diminished at will to some extent; it is sufficient for the swimmer to introduce into his chest a greater or less quantity of air to augment his volume, and so diminish his specific gravity. If, instead of 2 litres of air, the quantity which he has in his lungs, he takes a long breath and inspires 4 litres, the quantity which his lungs can

* The French "kilogramme" or "kilo" is equal to 2 lbs. avoirdupois, and the "litre" to $1\frac{1}{4}$ pints.

contain, he can support so much the greater weight. This explains not only how those who are less skilful can float on their back, and how also, by keeping nothing but the face of the drowning man out of the water, the weight can be reduced to 3 kilogrammes only.

"The trunk of the body has then very nearly the same specific gravity as water; but during life, and especially when long breaths are taken, it becomes lighter than water.

"If the question is raised as to whether the position of the rescuer lying on his back is quite necessary, I answer that I can recommend it only after thorough study, and that I can justify that recommendation. In considering their exact advantages, I have come to the following conclusions:—In swimming on the back, I easily practised the simultaneous rescue of two adults whose heads were placed on my breast; and in another experiment, I found it impracticable to save a single youth of fifteen years old resting on my shoulders, swimming in the ordinary way. To show how far the first-named experiment could be carried, I performed the following experiment: a weight of 12 or even 15 kilos placed on the chest of the swimmer was easily supported above the surface of the water; whilst the same weight attached to the nape of the neck or to the shoulders pressed so heavily on the supporter of it, that he was soon obliged to place himself in an upright position in order to get breath, and to demand, in a gasping tone, to be released from his load. In other words, it was simply like fastening a stone to the neck to drown one's self.

"One of these two positions then was defective, that of swimming on the stomach. Why is this? for it seems to be more natural and preferable, especially as offering the aid of the two arms to swimming, and of being able to see in front. I think the explanation is to be found in the estimate of weights which I have just given, proving that he who swims in the most customary manner on the stomach, is really heavier than he who swims on his back. The difference is in the man himself, for, in the ordinary way, he has to bear the weight of his own head (4 kilos) in addition to his burden (12 kilos), whilst in swimming on the back, the head is submerged all but the face, and the weight which the swimmer has to support becomes that much less. Other scientific estimates may also be called in to the support of this preference which I give to swimming on the back. Is it not a scientific fact, that a body plunged into a liquid undergoes from this liquid a vertical pressure equal to the volume of the liquid which it displaces? Now, in swimming on the stomach, this pressure compresses the chest, which is the dilatable part, and thus renders most painful the deep inspirations required after prolonged efforts.

"Is it not also certain that the stability of a floating body is so much the greater in proportion to the lowness of position of the centre of gravity? It is for this reason that in ships the heaviest bodies, together with the ballast, are placed in the hold.

"In swimming on the back, the rescuer thus has more stability, his chest is more dilatable, his respiration less difficult, his specific gravity lightened by the greatest possible introduction of exterior air; he is free from every obstacle, and his hands, being so much freer, easily sustain and protect him whose life he wishes to save.

"In such cases respiration is often rendered difficult, and the strength is diminished by the sudden impression of cold, by exaggerated efforts, and, above all, by emotion. In these circumstances the rescuer, in order to preserve all his power of action, must carefully manage his breathing, as in other spheres the singer and the

clever wrestler have to do: thus he will succeed, when he requires to call up the presence of mind of which he is capable.

"To discover the point where a drowned man is, who has disappeared in calm water, the bubbles of air which rise to the surface are a sure indication for the diver.

"Finally. Such is my confidence in the method above described that I desire to make it known by all possible means, and, above all, by the practice of my directions in all swimming schools. In effect, I propose to make as many men capable of saving their fellow-men as there are swimmers, and thus to augment the chances of safety for all who are in peril of drowning."

SHIPWRECKED FISHERMEN AND MARINERS' ROYAL BENEVOLENT SOCIETY.

THE Thirty-first Annual Meeting of this national charity, incorporated by Act of Parliament, and supported by voluntary contributions, to assist destitute persons cast away upon our coasts, was held on the 25th May last at Burdett Hall, Limehouse, Capt. the Hon. FRANCIS MAUDE, R.N. (in the unavoidable absence of His Grace the DUKE OF MARLBOROUGH, President of the Society), in the Chair.

We observed amongst those present:—G. A. BROGRAVE, Esq., *V.P.*, Vice-Admiral BUCKLE, C.B.; Captains Royal Navy, A. BOYLE, THOMAS OSMER, and W. H. SYMONS (Second Secretary); Revs. W. R. PAYNE and J. B. WHEELER; Capts. TRIVETT, BUDD, and TRIBE; Esquires, THOMAS BRADBERRY, JOSEPH GREAVES, CHAS. H. MALTBY, L. H. SAUNDERS, and many ladies.

The Chairman, after having enlarged upon the important and charitable nature of the operations of the Society, called on the Secretary, FRANCIS LEAN, Esq., R.N., to read the Report, wherein it was stated that during the past year the Society had relieved 7,517 shipwrecked persons, natives and foreigners of eleven different nations, and 4,283 widows and orphans of fishermen and mariners, making a total, since the formation of the Society in 1839, of 194,112; that 49,171 mariners voluntarily subscribe 3s. each per annum. The income of the Society during the past year had been 27,517*l.*, in connection with which certain large donors were mentioned, viz.:—HER MOST GRACIOUS MAJESTY THE QUEEN, 25*l.* (annual); Messrs. COURTS and Co., 25*l.*; The Marine Assurance Co., 52*l.* 10*s.*; Society for the Relief and Discharge of Persons Imprisoned for Small Debts, 100*l.*; Proportion awarded from Tyne Wrecked Mariners' Home (per JOHN FOSTER SPENCE, Esq.), 74*l.* 10*s.*; Miss HUNT, 21*l.*; R. DURANT, Esq., 20*l.*; JOSEPH GOFF, Esq., 20*l.*; Lady LAWLEY, 45*l.*; A Friend, 20*l.*; WILLIAM PHILLIPS, Esq., 100*l.*; Merchant Tailors' Company, 26*l.* 5*s.*; A. JAMIESON, Esq., 20*l.*; ROBERT WOODWARD, Esq., 20*l.*; Trustees of the late WILLIAM THORNGATE, Esq. (per HENRY COMPIEGNÉ, Esq.), 20*l.*; Ballast Board (Dublin), 25*l.*; The Western Clubs (Topsham), 30*l.*; WILLIAM RUSSELL, Esq. (Totnes), 25*l.*; Collected on board the S.S. *Moravian* (Liverpool), 22*l.* 10*s.*; Proceeds of Basket, per MRS. MAYNARD (Liverpool), 21*l.*; Balance of Proceeds of a Roman Catholic Ball (Lytham), 20*l.*; Collection after Sermon by Rev. W. H. REDRNAP (Ryde), 22*l.* 0*s.* 2*d.*; Anonymous (Bristol), 100*l.*; "E. B." (Bristol), A Thank Offering for mercies received, 100*l.*

Several large legacies had also been announced during the past year.

Reference was made to the efforts of the Society in granting rewards for saving life on the high seas and on the coasts of the British Colonies. The Report, after having called attention to the gradual progress of the Royal Alfred Aged Merchant Seamen's Institution established at Belvedere, and to the publication of the Society, concluded by drawing attention to the fact, that 11,800 persons suffering from the perils of the deep during the past year have, through the grace of God and the benevolence of the supporters of the Charity, had their sufferings materially alleviated.

Various resolutions having been moved and seconded, the Meeting separated after the usual vote of thanks to the Chairman.

RESTORATION OF THE APPARENTLY DROWNED.

THIS important subject, so intimately connected with the work of the NATIONAL LIFE BOAT INSTITUTION, has from time to time been treated of in our columns; but it is one of such general interest that any later information on the subject which may result from experience or scientific research will be certain to command attention.

Amongst those who have successfully made it their study is M. LABORDETTE, the Superintending Surgeon of the Hospital of Lisieux, in France, who has made numerous experiments on the lower animals, and has invented a very ingenious instrument, which he has named a "Speculum Laryngien," or "Laryngoscope," which promises to be of much service in the hands of medical practitioners, by facilitating the restoration of partially drowned or otherwise asphyxiated persons.

This instrument is designed to distend the throat and to facilitate the operation of examining and cleansing it, whilst it at the same time favours the free inspiration and expiration of atmospheric air, which in such cases is of vital importance.

Dr. LABORDETTE has published a treatise on the subject, having especial reference to the use of this instrument, which has appeared to us to be so interesting that we have translated it throughout, and inserted it in our present number. We also give a description and an engraving of the instrument itself.

In his treatise Dr. LABORDETTE especially calls attention to what he considers to be a serious mistake in the commonly received definition of the signs which indicate death in the cases of apparently drowned persons, and there appears to be much force in his statement.

In the Rules of the NATIONAL LIFE-BOAT INSTITUTION, and in those of the

ROYAL HUMANE SOCIETY, amongst the appearances which generally indicate death are enumerated the "clenching of the jaws" and the "semi-contraction of the fingers." Dr. LABORDETTE, however, states that after numerous experiments and much consideration he is convinced that both of those indications are, on the contrary, evidences of remaining vitality. And he quotes several cases of restoration, both of human beings and of animals, whose jaws were clenched on being taken out of the water. He particularly quotes experiments made by himself with rats, when nine out of twelve, whose jaws were clenched and limbs contracted, were restored to life, while of twelve others, who were left longer in the water and whose jaws were not fixed nor their limbs contracted, only three were restored.

He considers that in the first stage of suffocation by drowning, the spasmodic action usually takes place which occasions the clenched jaws and contracted hands, but which are again relaxed at the last stage before *rigor mortis*, or the stiffness of the dead corpse, ensues.

Dr. LABORDETTE, therefore, strongly urges that the mere clenching of the jaws and contracting of the hands should serve as a stimulant to prolonged efforts to save life on the part of the operator rather than as reasons for the discontinuance of the same. The evidence which he adduces in favour of his opinion on the subject is so convincing, and moreover the acting on it is so entirely on the *safe side*, that we think it highly deserving of the consideration of the medical profession, and that all persons who have the opportunity to assist in restoring the apparently drowned should bear it in mind.

ON THE EMPLOYMENT OF THE LARYNGOSCOPE IN THE TREATMENT OF ASPHYXIA BY SUBMERSION.¹

By A. DE LABORDETTE, Surgeon to the Hospital of Lisieux, Knight of the Legion of Honour.

The laryngoscope has been the subject of a favourable report made to the Imperial Academy of Medicine by Professor ROBIN,² on behalf of a commission on which MM. TROUSSEAU and GOSSELAN were appointed.

In this report the facts proved by us on the living and on the dead subject were set forth, and their exactitude was confirmed, not only by the members of the Commission, but by several hospital surgeons and students. The following are the results obtained:—

1. The instrument may be easily introduced,

¹ Extracted from the 'Journal of Public Health and Medical Jurisprudence.' Second series, vol. xxix., 1868.

² 'Robin, Report.' (Journal of the Academy of Medicine, 1865, vol. xxx., p. 721.)

and is supported without nausea by the majority of subjects, either in good health or asphyxiated.

2. It allows of the easy examination of the epiglottis, the aryteno-epiglottic folds, the superior opening of the larynx, the portions of the back of the throat placed at this level, and the condition of these parts, either directly, or in the mirror with which some laryngoscopes are furnished.

3. It consequently facilitates the introduction of instruments intended to act on these organs, or to free them from the mucus, the false membranes, &c., which may adhere to them.

4. It renders the catheterism of the trachea particularly certain and rapid, by allowing the eye to follow the extremity of the sound as far as the superior orifice of the larynx; and it may consequently be of use in this point of view in measures adopted for the recovery of drowned and asphyxiated persons.

The opinion given by the Commission of the Imperial Academy of Medicine encouraged us to urge upon the Prefect of Police the necessity of adding to the apparatus of recovery our laryngoscope.

Our request, submitted to the Council of Public Health of the Department of the Seine, was sent to Professor TARDIEU, who proposed to intrust to Dr. AUGUSTE VOISIN, director of the Humane Society, the performance of experiments which should be suitable for demonstrating the nature of the services which our instrument might afford in the recovery of drowned and asphyxiated persons.

Dr. VOISIN handed in his report to the Prefect of Police on the 11th September, 1865, and the following passage is an extract from it:

"I have just employed the laryngoscope of M. DE LABORDETTE on a drowned man at Issy. The man had his teeth very tightly compressed, in consequence of a trismus of the jaws. The instrument could not be introduced into the mouth without the aid of a box-wood lever; but when once introduced, it was of great service to me in the cleansing of the back of the throat, and was of great advantage in assisting the entrance of air into the air passages and the recovery of life."

In default of drowned persons on whom the experiment might be repeated, M. AUGUSTE VOISIN tried it while in attendance on epileptics at Bicêtre. From these experiments it was found that during the first period of the fit certain persons have their teeth very firmly compressed, and are almost in the same condition as drowning persons. With them also the introduction can only be effected by the use of a boxwood lever; but when once in its place, the laryngoscope maintains the mouth open and the tongue depressed, perfectly and painlessly, so as to permit the easy penetration of air into the air passages.

The facts observed by M. VOISIN, although they were few in number, appeared sufficiently conclusive to M. TARDIEU to enable him to declare his authoritative conclusion that "the laryngoscope easily maintains the tongue depressed and the respiratory passages open." "This double condition is so important in all cases where it is necessary to revive persons threatened with death through having been submerged, hanged, or visited by any other description of asphyxia, that nothing but advantage can accrue by adding this speculum to the different instruments for restoring life.

The Board of Public Health approved of the opinion given by its learned referee, and the Prefect of Police, by a decree, dated Feb. 28th, 1867, ordered that the laryngoscope should be

adopted among the apparatus for drowned persons.

I have recorded, in reference to the drowned man recovered by M. AUGUSTE VOISIN, the coincidence of a violent contraction of the jaws and the recovery of life. This is a very important detail, to which it is well to call the attention of the reader. Among authors who have made a special study of asphyxia by submersion, I have only found BEAU¹ giving special attention to the contraction of the jaws.

There is already provided in the "boites de secours" a boxwood lever for the purpose of separating the jaws of drowned persons. Several instruments have been invented calculated to facilitate the separation of the jaws. In the "Practical Instruction in the Treatment of the Drowned," edited by FODRÉ, we read: "If the mouth be found closed by the tonic contraction of the muscles of the lower jaw, which sometimes takes place, we must seek to open it with a spatula or the handle of a spoon used as a lever. It will be kept half opened by a piece of cork placed between the teeth, which will also prevent the convulsive closing of the jaws which often happens at the commencement of recovery, and which may cut through the tongue if it be protruding."²

More or less precise recommendations of the same kind are found in the Instructions published lately by the Board of Health of the Department of the Seine, and of other departments, &c.

These instructions insist, and with reason, upon the means of recovering persons, upon the employment of heat, friction, inspiration of air, suitable movements for causing the entrance of air into the chest, &c., upon the probable causes of death, the incidents, and the complications which accompany asphyxia; in none of them is any weight attached to the fact, so important in my eyes, of the contraction of the jaws.

I shall rapidly relate the principal symptoms regarded as inseparable from asphyxia by submersion, and I shall connect them with the three circumstances noted in the experiment of M. AUGUSTE VOISIN, that is, 1. the constriction of the jaws, 2. the necessity of opening the entrance to the air passages to facilitate the penetration of air into them, and consequently, 3. the recovery of the sufferer to life.

When a person falls into the water he either remains at the bottom, or rises to the surface by swimming. What takes place in these two cases as far as the respiratory organs are concerned? If the body remains under the water does the subject attempt to breathe? Several authors assert that he does, and some of them have attempted to support this assertion by experimental proofs. Thus VIBORG says: "Persons in the act of drowning, when they have plunged under water, preserve for a longer or shorter time the faculty of contracting the thoracic cavity, and in inspiration fill the trachea, the bronchi and the lungs with water."³ ALBERT gives the same opinion, and adds that he does not see why an animal which can only live in the midst of atmospheric air should not try to breathe under water, since nothing opposes the mechanical execution of this function, the water is drawn in by the efforts at respiration.⁴ The observations recorded by this clever experimenter, who drowned a large

number of animals of various species in pure or coloured water, leave no doubt about the penetration during submersion of a portion of these liquids into the tracheal artery and the lungs.¹ M. PRORRY, in his experiments on submersion, arrived at the same result.²

Finally, we owe to BLUMHARDT the knowledge of a fact of the same description, but altogether exceptional. It has reference to a man subject to attacks of epilepsy, who was found drowned in a brook about a foot deep, with his face turned towards the ground. The trachea and the two large bronchi contained gray and schistous sand and gravels of different sizes; some particles were even extracted from the pulmonary vesicles.³

All the authors who have just been quoted admit, as we have seen, the presence of a certain quantity of water in the air passages of the drowned man. Nevertheless, they remark this fact, that the quantity of water introduced into the lungs is less when the subject has not come to breathe at the surface. There are even cases, but these form exceptions, in which no trace of liquid is found in the air passages. These cases constitute the variety of asphyxia by submersion, which is called nervous or immaterial, due to a syncope produced at the moment of the fall into water. This form DESGRANGES was the first to distinguish from ordinary or material asphyxia.⁴

After discussing at length this fact of the introduction of water into the bronchi, the same authors pass in review different methods, having for their object the recovery of drowned or asphyxiated persons. Among these methods, inspiration and insufflation of air are placed in the first rank. ALBERT⁵ speaks highly in favour of inspiration, and in support of his opinion adduces his successes obtained with animals which he had drowned. He relates fifteen observations on animals submerged for five or ten minutes and recovered by means of inspiration. MARC⁶ says that his experiments have not given him such brilliant results as those of ALBERT: nevertheless, in some cases inspiration has been proved to be evidently useful, but so much cannot be said of insufflation. This latter method also has its proselytes and detractors. MARC and LEROY D'ETIOILLES have made numerous experiments tending to show the dangers of rough and violent insufflation through the mouth. Quite recently, M. MARCHANT has extolled insufflation; but he practises it with the aid of a sound introduced into the nostrils, as MARC,⁷ PORTAL, RIGAL, &c., had previously advised or acted on.

In reference to what is said about the contraction of the jaws with drowned persons, M. MARCHANT attaches no importance to it; and consequently he repels in the following words attempts calculated to overcome it before the apparatus intended for the re-establishment of respiration has been duly employed: "At the third period of asphyxia, every trace of external life has disappeared, and authors who speak of it all agree in comparing individuals who have arrived at this stage to corpses, and in considering the return of life to them like a resurrection. . . . All parts of the body except the heart are asphyxiated ;

¹ MARC, as above, p. 152.

² MARC, as above, p. 153.

³ MARC, as above, p. 154.

⁴ DESGRANGES, "Treatise on the Means of Perfecting the Treatment of the Drowned." Lyons, 1790.

⁵ MARC, as above, p. 191.

⁶ MARC, as above, p. 223.

⁷ This is how MARC expresses himself in relation to insufflation:—"Of different methods of aspiring or insufflating air, the best is that in which they are performed by one of the nostrils; the other, as well as the mouth, being kept closed."—MARC, as above, p. 220.

¹ BEAU's 'Experimental Researches on Deaths by Submersion.' (Archives of Medicine, 1860, Fifth series, vol. xvi., p. 76.)

² FODRÉ, 'Dictionary of Medical Sciences,' vol. xxxvi. (1819), p. 442, article Noyé.

³ MARC's 'Fresh Researches into the Recovery of Asphyxiated and Drowned Persons.' Paris, 1835, p. 147.

⁴ MARC, as above, p. 148.

the muscles which play an active part in respiration are indifferent alike to contraction as well as to relaxation. This passive state of the muscles as soon as death becomes complete, will be replaced by the *rigor mortis*, which, according to LOUIS and NYSTRÉN, is of great value as a certain sign of death. It is then clear that it is useless to seek to open violently a mouth which offers no resistance, and the boxwood lever supplied for the means of rescue serves to give no sign.¹

The assertions which conclude the passage just quoted are in diametrical opposition to the facts observed by the most careful and creditable experimenters. We have quoted several of them in the course of this notice. We think we ought to add to it the opinion expressed by BEAU on the subject which we are now considering, deduced from his own experiments: "In the state of submersion," says this learned and skilful observer, "the stoppage of the respiratory motions depends on an instinctive and irresistible horror for the inspiration of water. The animal convulsively closes his mouth and nostrils with the view of preventing the penetration of water."² BEAU relates that a medical student who was drawn out of the water at the moment of impending death told him that in the state of submersion he performed no respiratory motion in the fear of inspiring water.

These differences of opinion among learned men of repute prove that facts obtained experimentally are frequently complex, and that in submersion particularly, the circumstances which lead to death are not always identically the same.

BEAU,³ in the experiments which he performed, made this important remark: that with submerged animals he has found the lips closed and fixed one against another, and the glottis closed so as to close the passage of air. Much more, these same conditions of closing of the mouth and glottis existed equally with a dog into whose trachea a canula had been fitted; although this canula afforded a free entrance for the water into the air-passages during the immersion of the animal, it abstained after the first respiration from any respiratory movement, and then there was no more liquid inspired. At the post-mortem examination, no more frothy water was found in the lower part of the bronchi than in cases where the submersion had taken place without the previous introduction into the trachea of a canula communicating freely with the outer air. On the contrary, a dog prepared in the same manner as the preceding was plunged into water, with the exception of the head, which was kept above the surface of the liquid. After a first inspiration, followed by coughing, and the vomiting of water and air bubbles through the canula, respiratory movements ceased and afterwards reappeared. The submerged animal made inspirations and expirations alternating in the most regular manner, and without coughing. At each expiration bubbles of air proceeded from the canula, and the quantity of them went on diminishing more and more, in proportion as the quantity of water inspired increased. At the end of five minutes, the animal was taken out of the water. "It was found that the trachea and the bronchi were literally filled with water; the water was not frothy; the lips and the glottis were not closed convulsively as they had been in the preceding experiments."

¹ MARCHANT, 'Asphyxia and Pulmonary Insufflation.' (Archives of Medicine, Sixth series, vol. ix., 1867, p. 530.)

² BEAU, 'Experimental Researches on Death by Submersion.' (Archives of Medicine, Fifth series, vol. xvi., 1860, p. 76.)

³ BEAU, as above, p. 74.

From this experiment BEAU draws the conclusion "that immersion of the natural orifices of respiration is an imperative warning to the animal that respiration will cause the water to penetrate into the air-passages, and that consequently it ought to be stopped." He admits, finally, as a result of his experiments, that "in ordinary and complete submersion the occlusion of the respiratory openings and the forcible stoppage of the movements of respiration are the cause of death, and establish a great analogy between this kind of death and that which supervenes in the case of lock-jaw." Professor TARDIEU, in the careful analysis which he has made of the researches and experiments undertaken in England by some of the members of the Medico-Chirurgical Society of London, gives, on the contrary, his opinion that among drowned persons death is the consequence of the entrance of the water into the lungs and the formation of froth by means of this water, of the air, and of the bronchial mucus, under the influence of violent efforts at inspiration during the first minutes of submersion. "It is," says the learned professor, "the penetration of the water into the respiratory passages and into the lungs which is the essential if not the exclusive element in death by submersion, and which accounts for the rapidity with which it takes place, as well as the excessive difficulties which are experienced in restoring drowned persons to life; difficulties which neither simple privation of air, strangulation, hanging, not asphyxia by carbon vapour present in the same degree" (p. 360).¹

I cannot pretend to set myself up as a judge between the contradictory opinions asserted by the eminent men whose works I have just been quoting. But I must confess that the theory of BEAU seems to me to correspond more completely than the other with the facts which I have had occasion to observe myself. Besides, those who share the opinion which, in death by submersion, makes the water and the frothy and bloody mucus play the principal part in the obstruction of the air-passages, appear to me to have lost sight of the refutation addressed by Goodwyn to Haller, who held the same opinion. Goodwyn introduced directly, through an opening made in the trachea of a cat, which was kept in an upright position, a quantity of water estimated at two ounces. "Immediately the animal experienced a difficulty of breathing, and its pulse became feeble. But in a short time these symptoms subsided; it lived several hours without perceptible suffering. Finally it was killed, and I found 2½ ounces of water in its lungs."² The same experiment repeated on two other cats gave identical results. "From this we may conclude," says Goodwyn, "that even if a greater quantity of water were to be introduced into the lungs than that which was found there, in these last experiments, that quantity would not still produce effects similar to those which result from submersion."

In the experiments which I have myself performed, and of which I am now going to give some account, I particularly applied myself to follow step by step the progress of the asphyxial symptoms, and specially to observe the production of the contraction of the jaws.

An animal plunged under water and prevented

¹ TARDIEU, 'New Medico-Legal Investigation upon Submersion and Suffocation,' &c., in reference to the experiments of the Medico-Chirurgical Society of London. (Journal of Public Hygiene and Medical Jurisprudence, vol. xix., Second series, 1863, p. 312.)

² EDMUND GOODWYN, 'The Connexion of Life with Respiration.' London, 1789; translated by J. N. HALLER. Paris, 1793, p. 17.

from coming to breathe at the surface executes respiratory movements which cause bubbles of air to rise to the surface of the liquid. While keeping the mouth closed, it swims, goes to the bottom, and attempts to rise to the surface again; at the end of about a minute the limbs cease to move and seem to contract. It falls again to the bottom, afresh attempts to swim, half opens its mouth, and again shuts it in an instant; its limbs stiffen, it falls, to rise only once more at the end of about a minute and a-half.

In spite of the greatest attention, I have not seen the slightest dilatation of the chest produced. The animal, drawn out of water under the circumstances just related, presented a very firm contraction of the jaws. It was with difficulty that I kept them open with the aid of pincers; the limbs were stiff and the eyes starting out of the sockets. By keeping the mouth open and causing movements to be executed simulating those which are produced in the act of respiration, I saw the subject recover life in proportion as the air penetrated into the lungs.

This experiment, repeated upon twelve animals of the same age and the same species (namely, rats), gave me the following results: nine were restored to life, only three died.

By prolonging the stay of the animal under water to two or three minutes, the limbs by degrees spread out and the jaws were no longer contracted. In the case of twelve animals taken out of the water after remaining in it two or three minutes, I found the jaws not fixed together and the limbs not contracted. After having tried for a long time to recall them to life with the methods which had succeeded so well in the preceding cases, I was only able to restore to life three, and that not without difficulty; the other nine were dead.¹

The dead animals in the preceding experiments, having been left in the open air or placed under water for twelve hours, I found that their jaws and limbs had become rigid. I executed on them attempts at resuscitation, but they were in vain. The stiffness which follows death cannot be confounded with that which is produced in the subject whose stay under water has lasted only for some moments. In the latter case, with subjects restored to life, the rigidity was the result of the contraction of the muscles; in the other case, it was due to the *rigor mortis*. The section of the medulla oblongata immediately caused the first species of contraction to give way; but it remained without any effect on the second—that is to say, on the *rigor mortis*. Eight animals (two rats, two dogs, and four rabbits), presenting, after a short immersion in water, a strong contraction of the jaws, were submitted by M. LEGROS and myself to section of the medulla oblongata, and immediately the contraction disappeared.

It is well-known that it is possible to oppose the entrance of air into the bronchi by contracting the muscles of the jaws, the pharynx, and the roof of the palate. By the use of this contraction we can very well plunge into water without the liquid penetrating into the air-passages. But can these muscles which protect the respiratory passages contract equally without our will? We shall arrive at an affirmative answer, if we consider the part which the nerves proceeding from the tenth pair play in the act of respiration. The mucous membrane of the larynx, the trachea, the bronchi, &c., is traversed by numerous ramifications of the pneumo-gastric nerve—a nerve ex-

clusively one of sensation. The spinal nerve on its part presides over the movements of the glottis, animates the muscles of the larynx, the contractile tissue of the trachea and the bronchi, the constrictors of the pharynx, &c. "There is not," says M. LONGER, "in the animal economy a single motor nerve on which depend movements as directly necessary to the support of life as are those which are influenced by the spinal nerve." Struck with the exceptional peculiarity which the medullary origins of this nerve present, the length of which is out of proportion to the other nervous pairs, this learned physiologist adds: "Convinced that nature, always foreseeing and faithful to the aim of conservation which predominates in her works, has multiplied in proportion to the importance of the functions the resources and means suited to ensure the free and easy exercise of them, I thought that if the spinal nerve takes insertions in so great an extent of the medullary axis, it must be in order that its functional integrity may be better preserved, and that the sudden interruption to the influence of the nerve may be less easy."¹

Let any cause or agent intervene to threaten the respiratory function in its physiological conditions, the sensitive disturbance which the pneumo-gastric nerve receives from it immediately causes the motor nerves, the spinal, hypoglossal, the laryngeal nerves to enter into action, and immediately the muscles of the mouth, of the back of the throat, and of the larynx, &c., in contracting shut out the access of any other agent than the atmospheric air; and this air must be in a normal quantity and arrive in a regular manner. We see, in fact, that a large quantity of air arriving too quickly produces symptoms analogous to those which result from the introduction into the bronchi of a deleterious gas or a liquid.

When we are thoroughly convinced of the reality of this protecting function entrusted to the organs anterior to the air-passages, it is easy to survey their exercise when chloroform is breathed, in view of a surgical operation. The patient has to make an effort to overcome what is called spasm; his will is sometimes incapable of acting, and when he is already subject to the effect of the anaesthetic, the operator must bring all his energy to bear, in order that he may continue to keep up his respiration by raising his sides.

If we analyse the sensation which is experienced when we fall into water, we remember that we suffered for some time a violent constraint in the throat. We may swallow, but not breathe, and when we come out of the water, we still preserve for a long time the sensation of contraction and constriction of the throat.

I believe I have established, in my experiments on animals, that the contraction of the jaws, far from being a sign of death, established rather the continuance of life. Let us see if, in reference to drowned men restored to life, this contraction of the jaws has been made out. Independently of my personal observations, I have gained information among many Humane Society men and persons who have rescued and restored drowned persons to life. All of them agreed in declaring to me the existence, among drowned persons, of the contraction of the jaws.

1. "On board the *Citizen*, a whaler, two men were taken out of the water after having been immersed several minutes, their boat having been destroyed by a whale; I was compelled to unclose their jaws with a bar, and I afterwards restored them to life."

¹ These experiments, which I made together with Dr. Legros, were made in the laboratory of Professor ROBIN, at the Practical School, on the 15th, 21st, 25th, 26th, and 28th October, 1867.

¹ LONGER, 'Anatomy and Physiology of the Nervous System of Man and the Vertebrated Animals,' vol. ii., p. 267.

2. "On board the *Vermont*, an American whaler, I restored a sailor who had remained several minutes under water, and whose teeth I had unclosed with a knife."

3. M. CORDIER (of Trouville) told me that he had resuscitated three drowned men, who all had their teeth contracted.

4. L—, a child five years of age, had been under water about three minutes; his teeth were closely fastened; he was a long time unconscious, and it was only after having opened his mouth that his uncle succeeded in reviving him.

5. Dr. BIDAULT (of Evreux) being called to see

an asphyxiated person, had to unclose his teeth with the handle of a steel fork, before being able to make him breathe and restore him to life.

6. Dr. POTTIER (of Rouen) had occasion to resuscitate a drowned man; his jaws were contracted.

7. M. LECŒUR, president of the Humane Society, Rouen, took the trouble to inquire of a large number of his men, and he told me that he recollected perfectly, as well as his colleagues, that the drowned men who had been resuscitated under their efforts all had their teeth closed.

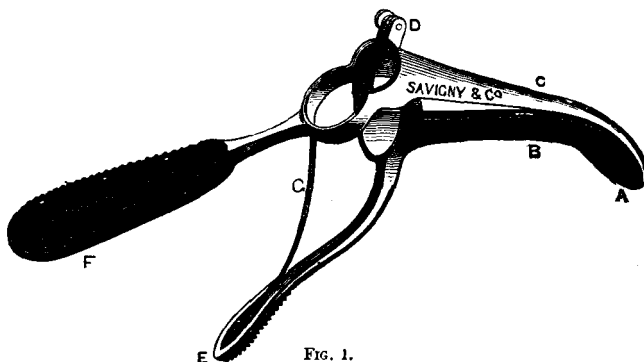


FIG. 1.

Fig. 1. Laryngoscope closed. A, mirror; B, the lower valve; C, the upper valve; D, joint between the parts of the instrument; E, handle of the lower valve; F, handle of the upper valve; G, spring, closing the instrument.

Fig. 2. Laryngoscope open. A, mirror in which the larynx is reflected; B, lower valve keeping the tongue depressed; C, valve fixed along the curvature of the pharynx.

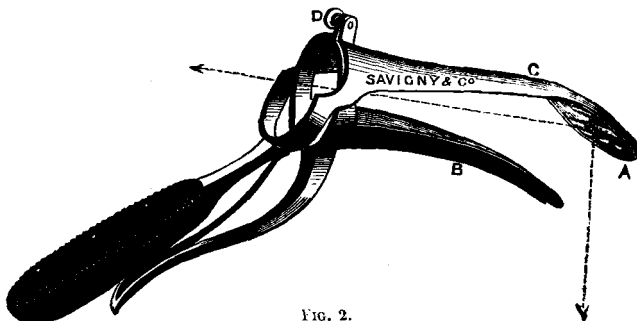


FIG. 2.

When we have a drowned man to deal with, after having properly placed and covered him to keep him from the influence of the cold, and after having freed him from every constricting bandage, we ought at once to take measures to overcome the obstacles which the contraction of the jaws opposes to the entrance of air into the air passages and to secure the opening of the mouth and the back of the throat. We then proceed with the administration of other means; as insufflation, exterior application of heat, friction, &c. Would a subject taken out of the water, and left to himself, return to life if he were not stimulated, and his back throat cleared? The thing is not absolutely impossible, and perhaps some example of it might be found in the records of science. "It is certain," says FODÉRE, "that several drowned persons owe their restoration to life to simple exposure to the rays of the sun."¹ But we must

¹ 'Dictionary of Medical Science,' vol. xxxvi. (1819), article Noyés, p. 411.

make allowance for heat: this agent, whatever source it come from, is, as is well known, one of the most powerful in accomplishing the restoration of drowned persons. Besides, those are exceptional cases, by which it would be imprudent to regulate one's conduct. I even believe that one of the causes of want of success in the use of such simple and such really good measures as those of MARSHALL HALL and SYLVESTER¹ results from the fact that in making exclusive application of them without any other aid, too little attention is paid to the contraction of the jaws, to overcome which immediate attempts ought to be made, in order to permit the air to penetrate through the larynx into the lungs. This contraction is so much the more precious an indication to rescuers, as it is, as we have said, an almost certain sign of the persistence of life. I confidently and emphatically express

¹ See th: 'Journal of Public Health,' Second series, Paris, 1835, vol. xxiv., p. 209.

this opinion, resting upon the fact, that the attention given to shipwrecked or drowned persons by their rescuers is usually sufficiently near to the moment of the accident to prevent the spasmodic contraction from being confounded with the *rigor mortis*, which only manifests itself a considerable time after death. The attempts to recover a drowned man from the state of apparent death ought to be so much the more persevering, I repeat, as the fact of the persistence of the contraction of the jaws is almost tantamount to a certainty of seeing them crowned with success. If unfortunately life should prove to be extinct, we should have a sure sign of the inutilty of any attempt at resuscitation in the spontaneous unclosing of the teeth and the reopening of the mouth.

Mode of using the laryngoscope :

The asphyxia of persons who have been drowned or hanged is occasioned by the suspension of respiration. The introduction of air into the lungs being stopped, the blood is not revived, and death ensues in a very short time. The end to be kept in view is, therefore, the re-establishment, as quickly as possible, of respiration.

By mentioning some of the difficulties which have to be overcome, the method of employment of the laryngoscope will be better understood.

With asphyxiated or drowned persons :

1. The mouth is closed and often very much contracted.
2. The tongue adheres to the back of the throat, and this adherence is complicated by the presence of a greater or smaller amount of mucus.
3. The mouth is with difficulty kept open, and the epiglottis, which covers the superior portion of the larynx, can only be raised at the cost of great trouble.

It will be seen how the laryngoscope surmounts these obstacles.

The body of the subject is placed on the back, a little turned on the right side, and the head a little raised.

After having unclosed the teeth with the lever, the laryngoscope, held in the right hand by the handle F, is introduced into the mouth by the rounded extremity of its posterior or superior valve C. It is pushed in so that this valve C may follow the course of the roof of the palate, along which its curvature makes it glide without effort, and without any danger of injuring any of the parts by which it passes. The instrument is introduced till the joint D almost touches the upper lip. When this first stage of the proceeding has been performed, the handle E of the lower valve is raised with a finger, towards the one already held. The two handles, E and F, now held together, are then taken in the left hand. Great care will be necessary to keep the instrument well back in the throat. Its lower valve B reaches the base of the tongue, which it depresses from above downwards, and from behind forwards; and thus the back of the throat is completely opened, the epiglottis which was covering the larynx is raised, the superior part of the air passages is by this single movement entirely cleared, and in direct contact with the air. There is then nothing to hinder the mucus from being cleared out by a piece of whalebone with a small sponge fixed at the end. The operator has one hand free, with which, if he be a doctor, he can afterwards use

such an instrument as may be suitable, whether a sound or insufflator; but it is well understood that only a doctor should use these means.

If the patient does not gasp immediately after the introduction of the laryngoscope, the instrument should be kept in its place, whilst the thoracic movements used in such cases to induce respiration are employed. I particularly recommend pressure exercised by the hand placed flat on the surface of the epigastrium, and sharply drawn away. The effect of this action ought to be so much the more efficacious now that the superior part of the larynx has become more completely free from every obstacle.

The application of the laryngoscope in cases of asphyxia excludes none of the methods recommended in such cases.

NOTE.—The laryngoscope can be purchased from Messrs. L. BLAISE and Co., 67, St. James's Street, London, S.W.

SUMMARY OF THE MEETINGS OF THE COMMITTEE.

THURSDAY, 6th January, 1870: 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 and approved the report of Capt. DAVID ROBERTSON, R.N., the Assistant-Inspector of Life-boats to the Institution, on his recent visits to Seaton Carew, West Hartlepool, Whitburn, Sunderland, Cullercoats, Tynemouth, Whitehaven, Manchester, Blyth, Newbiggin, Hauxley, and Alnmouth.

Reported the receipt of 700*l.* from Mrs. MARIA HOUNSFIELD, of Sheffield, to defray the entire cost of the Aldborough Life-boat Establishment, on the coast of Suffolk; the boat being named at her request *The George Hounsfeld*, after her husband—who has unfortunately since died.—*To be thanked.*

Read letter from Messrs. THYNNE AND THYNNE, of Great George Street, of the 3rd Jan., forwarding 360*l.* 4s. 3d. from the EARL OF DARTMOUTH and his tenantry, being the balance of the sum raised by exhibitions on his Lordship's estate in aid of the future support of the *Augusta* life-boat at St. David's, Pembrokeshire.—*To be thanked.*

Decided, on the application of the local residents, to place an additional life-boat at Appledore, on the north coast of Devon—it being thought desirable to have a small handy boat there in addition to the present larger one.

Also that the boat be named the *Mary Ann*, after the late Mrs. WALKER, of South Kensington, the mother of Colonel BEAUCHAMP WALKER, who had left the Institution a legacy of 500*l.* to defray the cost of a life-boat.

WILLIAM YEO, Esq., banker, of Bideford, a Member of the Local Committee, had also given the Society 100*l.* in aid of the expense of the future maintenance of this life-boat.—*To be thanked.*

Decided, that the Thanks of the Society, inscribed on Vellum, be presented to R. G. CREESMAN, Esq., and A. GOSSET, Esq., late Collectors of Her Majesty's Customs at Weymouth and Bideford, in acknowledgment of their valuable services while they severally occupied the office of

Honorary Secretary of the Branches of the Institution at those places.

Reported the transmission to its station of a second life-boat for Lowestoft, presented to the Institution by Miss MARY ANN LEICESTER, of Bayswater.

The Great Eastern Railway Company had liberally granted a free conveyance from London to Yarmouth to the stores for the life-boat, the boat having been built at the latter place.—*To be thanked.*

Ordered, that life-boat houses be erected at Salcombe, Devon, and at Lowestoft, at an expense of 426*l.*

Also that the slipway for the use of the Tyne-mouth No. 2 Life-boat be extended at a cost of about 80*l.*

Reported that one of the Institution's Pillar Contribution Boxes had been sent to Southampton, the Corporation having kindly granted permission for the same to be placed in a conspicuous part of the town.—*To be thanked.*

Read letter from Mr. BENJAMIN BROOKS, publisher, of the 3rd Jan., stating that he was about to exhibit in different towns two fine life-boat pictures, by Mr. THOMAS BROOKS, the well-known artist; and that he wished to do so under the patronage of the Institution.—*Decided that this request be complied with.*

Read letter from M. BARDIN, of Blankenberghe, of the 13th Jan., transmitting a few copies of his Pamphlet on Shipwrecks on the Coast of Belgium, in which attention was called to the great work of the NATIONAL LIFE-BOAT INSTITUTION—a work which, he said, had elicited the admiration of the world at large.—*To be thanked.*

Read letter from Mr. FREDERICK VOLLAMY, of Carisbrooke, Isle of Wight, forwarding a letter from M. F. C. DE MAY, of Achern, regarding his invention for propelling life-boats and large vessels.—*To be acknowledged.*

Also read letter from Messrs. PEACOCK BROTHERS, of Sunderland, of the 17th Dec., calling attention to M. RODOLPHE's plan of Steam Life-boat.—*To be acknowledged.*

Paid 2,265*l.* 8*s.* 6*d.* for sundry charges on various Life-boat Establishments.

[Various Special Contributions and Legacies given to the Society during the past month will be found in the last Annual Report of the Institution, published on the 1st April, 1870.]

Voted 28*l.* 6*s.* 9*d.* to pay the expenses of various life-boats of the Institution, in going off, during heavy gales of wind, and saving the crews, consisting of 139 persons, of the following wrecked vessels:—

Schooner <i>Columbine</i> , of Wexford.....	5	men saved.
Schooner <i>Vigilant</i> , of Hayle.....	5	"
Schooner <i>Adina</i> , of London.....	8	"
Schooner <i>Agathe Sibelbert</i> , of Stettin.....	10	"
Schooner <i>Loretta</i> , of Bilbao.....	13	"
Austrian barque <i>Suez</i>	10	"
Brig <i>Mary Young</i> , of West Hartlepool.....	8	"
Schooner <i>Jessie</i> , of Liverpool.....	3	"
Brig <i>Englishman</i> , of Workington..	6	"
Steamer <i>M. E. Clarke</i> , of London.	12	"
Schooner <i>Viscount Macduff</i> , of Macduff.....	4	"
Brigantine <i>Lutha</i> , of Leith.....	6	"
Brig <i>Edwardino</i> , of Genoa.....	10	"
Brig <i>Delegate</i> , of London.....	9	"
Schooner <i>Brenton</i> , of Fowey.....	5	"
Brig <i>Schiedam</i> , of Middlesboro'...	5	"
Brig <i>Echo</i> , of London.....	2	"
Three N. Sunderland fishing cobles	12	"
French brigantine <i>Girardin</i>	6	"

[The particulars of these various life-boat services, and of the rewards granted in each case, will be found detailed in the Annual Report of the Institution, published on the 1st April last.]

Voted 233*l.* 12*s.* to pay the expenses of the life-boats stationed at Tynemouth, North Deal, Filey, Broadstairs, Holyhead, Dover, Margate, Caister, Pakefield, Fraserburgh, Wexford, West Wittering, Yarmouth, Falmouth, St. David's, Ballycotton, and Swansea, in either assembling the crews, or in putting off in reply to signals of distress from various vessels, which subsequently got out of their dangerous positions without the assistance of the life-boats.

Voted the Second Service Clasp of the Institution, and a Copy of the Vote inscribed on Vellum, to Mr. ISAAC JARMAN, the coxswain of the Ramsgate life-boat; the Silver Medal, and Vote on Vellum, to Mr. CHARLES FISH, the bowman; and the Thanks, inscribed on Vellum, to Mr. DANIEL READING, the master of the steam-tug *Aid*, in acknowledgment of their continued gallant services in the life-boat and steam-tug in saving life from shipwreck.

Also the Silver Medal, and a Copy of the Vote, inscribed on Vellum, to Mr. RICHARD J. THOMAS, the coxswain of the New Brighton life-boat, in acknowledgment of his laudable services in ascending the mast of the schooner *Elephant*, of Ulverstone, and gallantly attempting to save the master who was lashed there, when the life-boat went off to that vessel on the 19th Oct. last.

Also the Silver Medal, and vote on Vellum, to Mr. JAMES BANYARD, Chief Officer of Her Majesty's Coastguard at Hornsea, Yorkshire, and 2*l.* to two other men for putting off in a small boat, during a strong gale, to the wreck of the brig *Guiseppeina*, of Naples, on the 28th Oct. last, with the view of rescuing the master. The boat, however, failed to accomplish that object, and had to return to the shore, when Mr. BANYARD waded into the surf, swam out with a line, and fortunately brought the captain safely to shore.

Voted 8*l.* to the Coxswain of the Cromer life-boat and seven other men; and 1*l.* 10*s.* to the persons who assisted to launch the shore-boat in which they put off and saved the crews, consisting of 13 men, of the brigs *Margaret*, of Portsmouth, and *Mary Ann*, of London, which had been in collision and had sunk, on the 7th Dec. last.

Also 1*l.* each to seven fishermen for going off in their boat, at much risk, and rescuing the crew of 5 men of the schooner *Paragon*, of Wick, which was wrecked at Cairnbulg Briggs, during a gale on the 14th Dec.

Also 5*l.* to ten fishermen, for putting off in their boat and saving one out of seven persons, whose boat had capsized off North Mavin, in the Shetland Isles, during squally weather, on the 1st Sept. last.

Thursday, 3rd February: 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 and approved the Report of Capt. J. R. WARD, R.N., the Inspector of Life-boats, on his recent visits to Aldborough, Yarmouth, Hasborough, and Palling.

Also the Report of the Assistant-Inspector of Life-boats on his visits to Cleethorpe, Donna Nook, Theddlethorpe, Sutton, and Skegness.

Also a Draft of the Annual Report and Financial

Statement of the Institution to the 31st Dec.; and ordered that the Account Books be sent to the Auditor for the usual yearly audit.

Reported that the Horse Guards had sanctioned the Medal of the Society, presented to officers of the army, non-commissioned officers, and soldiers, being worn in uniform on the right breast, a record of the recipients being kept at head-quarters.

Decided, on the application of the local boatmen, and on the recommendation of the Inspector of Life-boats to the Institution, to place a large sailing life-boat at Palling, on the coast of Norfolk, in addition to the fine self-righting boat at present on that station.

Also that the boat be appropriated to the "British Workman" Life-boat Fund, which had been raised through the indefatigable exertions of Mr. T. B. SMITHIES and other friends.

Decided, that the thanks of the Institution, inscribed on Vellum, be presented to C. G. GREENFELL, Esq., in acknowledgment of his valuable co-operation during the period he occupied the office of Honorary Secretary of the St. Ives (Cornwall) Branch of the Institution.

Reported also that the Rev. W. M. H. CHURCH had accepted the Honorary Secretaryship of the Hunstanton Branch, in succession to Mr. J. DE COURCY HAMILTON, who had retired. — *To be thanked.*

Also that the thanks of the Society be presented to R. B. HESKETH, Esq., of Abergele, in acknowledgment of his liberality in defraying the entire cost of the Llanddulas Life-boat House.

Also that the thanks of the Institution be given to Mr. THOMAS DAVIS, of Chippenham, for his valuable services in assisting to collect the cost of the *Western Commercial Traveller* life-boat, stationed at Cadgwith, on the Cornish coast.

Reported that the French Shipwreck Society had presented its Gold Medal to Capt. J. R. WARD, R.N., Inspector of Life-boats to the NATIONAL LIFE-BOAT INSTITUTION, in acknowledgment of his services as inventor of the cork life-belt, used by the life-boat crews of both countries, and of his co-operation with the French Society, which had now forty-five life-boats, all being on the plan of the English Life-boat Society, and which had already saved upwards of five hundred lives.

Decided, that a letter, conveying the Committee's sense of the great honour conferred on Capt. WARD, and, through him, on the NATIONAL LIFE-BOAT INSTITUTION, be addressed to the President of the French Shipwreck Society.

Reported that the Council of the Society of Arts had decided to offer a Gold Medal for a Ship's Life-boat.

Read letter from Mr. W. F. CLARE, of Southampton Buildings, of the 20th Jan., calling attention to a life-buoy which had been invented by a working man. — *To be acknowledged.*

Also read letter from Mr. J. B. RODGERS, of the 2nd Feb., calling the attention of the Committee to his plan for hauling out life-boats through a surf. — *To be acknowledged.*

Paid 2641l. 14s. 2d. for sundry charges on various life-boat establishments.

[The Special Contributions and Legacies received during the month of January will be found in the Annual Report, published on the 1st April last.]

Voted 7l. 9s., to pay the expenses of the Padstow life-boat in putting off, during a heavy gale on the 8th Jan., and saving the crew of 10 men of the Austrian barque *Suez*, which had stranded on the Doom Bar Sand.

Also 8l. 8s., to pay the expenses of the Porthdinllaen life-boat, in going off, during squally weather, on the 14th Jan., and rescuing the crew of 3 men of the schooner *Gronant*, of Carnarvon,

which was in a distressed condition about three miles east of Porthdinllaen.

Also the Silver Medal of the Institution, and a copy of the Vote inscribed on Vellum, to the Rev. OWEN LLOYD WILLIAMS, the Honorary Secretary of the Abersoch Branch; and 43l. 19s. to pay the expenses of that life-boat in going off twice during a N.W. gale and in a heavy sea, on the 14th and 15th January, and after considerable difficulty saving 13 men belonging to the ship *Kenilworth*, of Liverpool, which was wrecked on St. Patrick's Causeway, in Cardigan Bay. Mr. WILLIAMS went out in the life-boat on the second trip; he had been instrumental altogether in assisting to save 52 lives from different wrecks.

Also 39l. to pay the expenses of the Barmouth life-boat in going off, on the 14th and 15th January, to the same vessel, and saving 8 of the crew.

Also 6l. 10s. to pay the expenses of the Buddonness life-boat in putting off, on the 19th January, and rescuing 3 of the crew of the schooner *John Howard*, of Goole, which, during thick weather, had stranded on the Gaa Sands.

Subsequently the Broughty Ferry life-boat went off, and assisted in bringing the vessel safely into harbour.

Reported the services of the Ramsgate life-boat in putting off on the 19th Jan., and saving 2 men belonging to the smack *Whiff*, of that port, which, during a strong gale, was totally wrecked on the Quern Shoal. After striking, a heavy breaker swept the deck, carrying away and drowning 2 of the crew long before the life-boat could possibly have got to their assistance.

Voted 183l. 9s. to pay the expenses of the life-boats at Montrose, Abersoch, Rye, Peterhead, Tynemouth, Plymouth, North Deal, Walmer, Portmadoc, Cullercoats, Margate, Carnsore, Penzance, and Castletown, in either assembling the crews, or in putting off in reply to signals of distress from various vessels, which subsequently got out of their dangerous positions without the assistance of the life-boats.

Also the Silver Medal of the Institution, a copy of the Vote inscribed on Vellum, and 5l. to Mr. EDWARD AMIS, the late coxswain of the Palling life-boat, in testimony of his long and gallant services—extending over many years—in assisting in the life-boat to save the lives of a large number of shipwrecked men.

Also 18l. to the crew of the Winterton beachmen's life-boat for putting off and bringing ashore from the Newarp lightship 6 men belonging to the brig *Jones Brothers*, of Middlesboro', and the barque *Lavissa*, of Blyth, which vessels had been in collision, and had sunk near the lightship, on the 23rd Jan.

Also 1l. to 2 men for going off in a small boat, and rescuing 6 men from the fishing lugger *Sarah Jane*, of Ardglass, which was in distress near Balbriggan Harbour, in a fresh gale, and considerable surf, on the 16th Oct. last.

Thursday, 3rd March: His Grace The Duke of NORTHUMBRELAND, P.C., President 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.

Read and approved the report of the Inspector of Life-boats, on his recent visits to Broadstairs, Ramsgate, Deal, Walmer, Rye, and Winchelsea.

Also the report of the Assistant-Inspector of Life-boats, on his visits to Wells, Blakeney, Sher-

ingham, Cromer, Mundesley, Bacton, Hasborough, Palling, Winterton, Caister, Yarmouth, Gorleston, Corton, Lowestoft, Pakefield, Kessingland, Southwold, Thorpeness, and Aldborough.

Decided, that arrangements be made to hold the Annual Meeting of the Institution, on Tuesday the 15th March, His Grace the President having kindly promised to take the Chair on that day.

Reported the receipt of a Contribution of 400*l.* from H. DAVIES GRIFFITH, Esq., of Caer Rhyu, through Major HENRY SCOTT, to defray the cost of a Life-boat.— *To be thanked.*

[The other special contributions and Legacies received during the month of February are given in the last Annual Report of the Institution, published on the 1st April.]

Reported that WILLIAM SMITH, Esq., of Bowden, near Manchester, had placed the sum of 300*l.* in the hands of the Corporation of that City, to be invested in its four per cent. perpetual annuities, the interest to be given annually to the Institution, and particularly in aid of the support of the Manchester life-boats under the management of the Institution.— *To be thanked.*

Reported the transmission to its station of the new life-boat for Appledore.

The boat had met with a warm reception from the local residents.

Read letter from the Science and Art Department, South Kensington Museum, of the 24th February, offering to place in the Museum, for exhibition, specimens of the Society's Gold and Silver Medals.— *Ordered that the Medals be forwarded accordingly.*

Also that a new life-boat house and slipway be built at Fishguard, Pembrokeshire, at an expense of 345*l.*

Paid 1,150*l.* 8*s.* 7*d.* for sundry charges on various Life-boat Establishments.

Voted the Silver Medal, and a copy of the Vote inscribed on Vellum, to Capt. DAVID ROBERTSON, R.N., the Assistant-Inspector of Life-boats to the Institution, in acknowledgment of his gallant services in going off in the Yarmouth and Gorleston life-boats, on the 13th and 14th Feb., during an easterly gale, and saving 12 persons from the brig *Giovannina A.*, of Venice, and the schooner *Favorite*, of Arbroath, which were respectively wrecked off Gorleston, and near the Wellington Pier, Yarmouth.

Also 32*l.* 5*s.* to pay the expenses of the two life-boats on these occasions.

Also 14*l.* to pay the expenses of the Yarmouth surf life-boat, in going off on the 13th Feb., during a heavy gale from E.N.E., and rescuing the crew of 9 men of the schooner *St. Cyran*, of Hull, which was totally wrecked near the Britannia Pier.

Also 14*l.* to pay the expenses of the same life-boat in putting off, on the 18th Feb., and bringing ashore the crew of 5 men from the smack *Admiral*, of Yarmouth, which, during a heavy S.E. gale, had stranded about a mile north of the life-boat station.

Also 9*l.* 9*s.* to pay the expenses of the Theddlethorpe life-boat, in putting off, on the 31st Jan., and saving 14 men from a boat belonging to the barque *Rosetto*, of Genoa, which, during a strong wind from the S.W., and in squally weather, had become a total wreck off Mablethorpe.

Also 6*l.* 16*s.* to pay the expenses of the Newcastle (Dundrum Bay) life-boat, in going off on the 6th Feb., and rescuing the crew of 8 men from the brigantine *Elizabeth A. Bird*, of Liverpool, which, during a hard gale from the south, had stranded on Back Shore, Newcastle.

Reported also the services of the same life-boat on the 1st Feb., in putting off and rendering important assistance to the brigantine *Kelpie*, of

Liverpool, which, during a gale from S.S.W., was in distress off Newcastle.

Also 8*l.* 10*s.* to pay the expenses of the Hauxley life-boat, in putting off on the 2nd Feb., and saving the crew of 4 men from the schooner *Mary Jane*, of Aberdeen, which, during a very strong wind, was totally wrecked on Hauxley Head Rocks.

Also 15*l.* 8*s.* to pay the expenses of the same life-boat in putting off, on the 7th Feb., and rescuing the crew of 7 men from the brig *Sundew*, of North Shields, which, during stormy weather, was in distress in the Coquet Roads.

Also 16*l.* 14*s.* to defray the expenses of the Girvan life-boat, in going off, on the 6th Feb., and saving the crew of 5 men from the schooner *Forth*, of Wexford, which, during a hurricane from the south, with squalls and rain, was in distress off Girvan.

Also 17*l.* 5*s.* to pay the expenses of the Ramsey life-boat, in going out, on the 6th Feb., and rescuing the crew of 6 men, and the captain's wife and child, from the schooner *John Bell*, of Barrow-in-Furness, which, during a strong gale from the S.E., was in distress in Ramsey Bay.

Also 5*l.* 13*s.* to pay the expenses of the Llandwyn life-boat, in putting off, on the 14th Feb., and saving the crew of 3 men of the schooner *Scotia*, of Carnarvon, and a female passenger from the schooner *Lewis*, of the same place. The crew of the first-named vessel had abandoned her during the previous night, and had taken refuge on board the *Lewis*.

Also 8*l.* 10*s.* to pay the expenses of the Kessingland life-boat, in putting off, on the 2nd Feb., and bringing ashore 6 French sailors from the brigantine *Flora*, of Swansea, which was totally wrecked on the Barnard Sand.

Also 47*l.* to pay the expenses of the Kingsdowne life-boat, in going off five times, and after much difficulty rescuing 28 persons, including the captain's wife and infant child, from the ship *Glendura*, of Batavia, which, during a fearful gale of wind, had stranded off Kingsdowne.

Also 13*l.* to pay the expenses of the Middleborough life-boat, in putting off, on the 28th Feb., and saving the crew of 6 men from the schooner *Johns*, of Sunderland, which was wrecked on the North Gare Rocks.

Reported the services of the Ramsgate life-boat and steam-tug *Aid*, in going off on the 13th Feb., and bringing safely into harbour the smack *Mary*, of Ramsgate, and her crew of 5 men, which vessel, during a very heavy gale, was in distress on the Goodwin Sands.

Also the services of the same life-boat and steamer on the following day, in rescuing the crew of 5 men from the smack *Bethel*, of Ramsgate, which, during a strong gale from the east, and in a heavy sea, was wrecked near Quern Heads.

Also the services of the Newquay (Cardigan) life-boat, in going out on the 14th Feb., and bringing safely into harbour a barge, which, during a strong N.N.E. gale had been abandoned off that place.

Also the services of the Porthdinllaen life-boat, in putting off on the 14th February, during a strong gale, and bringing into harbour the derelict schooner *Scotia*, of Carnarvon.

Voted 142*l.* 12*s.* 6*d.* to pay the expenses of the life-boats at Arklow, Howth, West Hartlepool, Courtmacsherry, Greencastle, Great Yarmouth, Tynemouth, Bridlington, Dungeness, Moelfre, Bull Bay, Sutton, Gorleston, Theddlethorpe, Tyrella, and Aberystwith, in either assembling the crews, or in putting off in reply to signals of distress from different vessels, which subsequently got out of their dangerous positions without the aid of the life-boats.

Voted 17l. to some Walmer beachmen for assisting to save a large number of lives from four vessels, which, during a heavy gale from the E., were wrecked off that place on the 12th and 13th February.

Also 5l. to some Yarmouth beachmen for saving the crew of 3 men from the schooner *Star*, of Lynn, which, during a strong gale from the E., and in a heavy sea, had gone ashore near the Britannia Pier on the 7th February.

Also 3l. to 5 men for going off in a boat and saving the crew of 3 men and a pilot from the schooner *Mary* of Bangor, which, during a strong gale from the N.E., went ashore two miles south of Rosslare Point, on the 22nd December.

Also 3l. to a Portrush boat's crew for putting off and saving 4 pilots whose boat had capsized off that place, during a fresh gale, on the 21st January.

Also 4l. to some fishermen for going off in their boat and rescuing 3 persons who were in great danger in a small boat, near the Skerries Rocks, during a gale from the S., on the 1st February.

Also 1l. to ANDREW BENT and his Wife for putting off in a small boat and rescuing 2 out of 3 men, whose boat had capsized near Rosslare, during a N.E. gale and severe frost, on the 22nd December.

Tuesday, 15th March.—The Annual General Meeting of the friends and supporters of the ROYAL NATIONAL LIFE-BOAT INSTITUTION was held this day at the London Tavern, His GRACE THE DUKE OF NORTHUMBERLAND, P.C., President of the Institution, in the Chair.

HIS GRACE having opened the Meeting with some appropriate remarks on the important and national character of the operations of the Institution, its Officers for the current year were chosen.

The Secretary then read the Annual Report.

The Meeting was then addressed by GEORGE LYALL, Esq., Deputy Governor of the Bank of England; Capt the Hon. F. MAUDE, R.N.; R. M. BALLANTYNE, Esq.; CHARLES SEMON, Esq., late Mayor of Bradford; Vice-Admiral Sir W. H. HALL, K.C.B.; EUGENE F. NOEL, Esq.; Captain MONTAGUE PASCO, R.N.; The Rev. OWEN LLOYD WILLIAMS, Honorary Secretary of the Abersoch Branch of the Institution; THOMAS CHAPMAN, Esq., F.R.S., V.P.; THOMAS BARING, Esq., M.P., F.R.S., V.P.; and Sir EDWARD G. L. FERROTT, Bart., V.P.

Various Resolutions were afterwards moved, seconded, and carried unanimously, pledging the Meeting to renewed exertions on behalf of the benevolent and national objects of the Institution.

The Report and Resolutions will be found in the April number of the *Life-boat Journal*.

Thursday, 7th April: THOMAS CHAPMAN, Esq., F.R.S., V.P., in the Chair.

Mr. CHAPMAN, before taking the Chair, expressed to Mr. LEWIS, the Secretary of the Institution, on behalf of the Committee, their individual and united sympathy and deep regret on the occasion of the decease of his Wife, who, after many years of suffering, died on the 8th March.

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

Elected the Members of the Sub-Committees for the ensuing year.

Read and approved the Report of the Assistant-Inspector of Life-boats, on his recent visits to Seaham, Hogsthorpe, Chapel, and Leicester.

Decided, on the application of the local residents, and on the recommendation of the Assistant-Inspector of Life-boats, to form a Life-boat Station at Chapel, on the coast of Lincolnshire, where a wreck had recently taken place, and where it was considered that a life-boat was likely to be of service.

Lady B. had promised to give the Institution 500l. towards the cost of the Station, in memory of her late Husband.

Decided, also, to place a life-boat at Seaham, on the coast of Durham. Wrecks had not been very frequent in that neighbourhood; but it was thought that a life-boat might be of use there, particularly in rendering assistance to the fishing cobles when in distress.

Also that the station be appropriated to the Misses CARTER, of Harrogate, who by sales of their needle and other kinds of work, at their residence, had succeeded within thirteen months in raising the cost of a life-boat.

Ordered, that new life-boat houses be built at Ardrossan, N. B., and at Clovelly, North Devon, at an expense of 408l.

Also accepted an estimate, amounting to 99l. 10s., for constructing a slipway for the use of the Broadstairs life-boat.

Reported that THOMAS BROADWOOD, Esq., of Kensington, had presented to the Institution five debentures of the Royal Victoria Yacht Club, bearing interest at five per cent.—*To be thanked.*

Reported the receipt of the following contributions: ROBERT LEAMON, Esq., in aid of the Wells Branch, per THOS. GARWOOD, Esq., Honorary Secretary, 5l.; JOHN ELLIS, Esq., annual subscription to the Eastbourne Branch, 10s.—*To be thanked.*

[The special contributions and legacies received during the month of March are given in the last Annual Report of the Institution, published on the 1st April.]

Reported that a branch of the society had been formed at Bolton, Lancashire. ROBERT WHITWORTH, Esq., the Treasurer, and the Rev. E. HEWLETT, the Honorary Secretary of the Manchester Branch, had both attended a public meeting at Bolton, with the view to the organization of the branch.—*To be thanked.*

Decided, that the thanks of the Society, inscribed on Vellum, be presented to Mr. JAMES BARRETT, late Chief Officer of H.M. Coastguard at Carnsore, Ireland, in acknowledgment of his valuable co-operation during the period he occupied the office of Honorary Secretary of that branch of the Institution.

Decided, that the Safety Fishing Boat of the Institution, built by the Messrs. FORRESTER, of Limehouse, be altered in its fittings so as to be used as a Trawling Boat; and that the boat be placed in the charge of some Ramsgate Fishermen, who were prepared to undertake its management on the usual terms.

Read letter from Mr. T. H. BENNETT, of the 14th March, calling attention to his plan of life-boat.—*To be acknowledged.*

Read letters from Dr. LABORDETTE, Surgeon of the Hospital at Lisieux, in France, stating that he was decidedly of opinion that the "clenching of the jaws, and the semi-contraction of the fingers" in cases of persons apparently drowned, as stated in the instructions of the Institution for use in such cases, was not a sign of death; but that they rather, after short immersion, indicated remaining vitality.

Dr. LABORDETTE gave the result of a variety of

experiments made by him on animals, in support of his opinion; and stated that Dr. Brown SEQUARD entirely agreed with him in this matter. (See p. 523.)

Decided, that the words above referred to be omitted from the Institution's instructions for the restoration of the apparently drowned.

Paid 1,655*l.* 7*s.* 3*d.* for sundry charges on various life-boat establishments.

Voted 16*l.* to pay the expenses of the Pakefield life-boat in putting off on the 4th March, and rescuing the crew, consisting of 5 persons, from the brigantine *Adelia Ann*, of Swansea, which, during a strong gale from E.N.E., was totally wrecked near Pakefield.

Also 19*l.* 5*s.* to pay the expenses of the Drogheda life-boat, in going off on the 4th March, and saving, in two trips, 16 men belonging to the barque *Richard Cobden*, of Liverpool, which, during an E.N.E. gale, had stranded on the North Bull.

Also 16*l.* 10*s.* to pay the expenses of the Cromer life-boat, in going out on the 4th March, and saving 5 men from the brig *Emulous*, of Middlesborough, which, during a gale from the E., was in distress off Cromer.

Also 18*l.* to pay the expenses of the North Deal life-boat, in putting off on the 23rd March, and bringing ashore from the South Sand Head Lightship, the crew of 7 men of the brigantine *Germania*, of Bremen, which, during a gale from the N.N.W., was totally wrecked on the South Caliper Sands. The crew had put off in the ship's boat, and had taken refuge on the lightship.

Reported the services of the Ramsgate life-boat in putting off, on the 7th March, in tow of the steam-tug *Aid*, to assist the brig *Volunteer*, of Shoreham, which, during a gale from N.N.E., was in distress on the Goodwin Sands. Subsequently the steamer was the means of bringing the vessel safely into harbour.

The Broadstairs life-boat also put off and assisted the same vessel.

Also the services of the Wexford large life-boat, in putting off, on the 31st March, and rendering assistance to the steamer *Danube*, of Leith, which, during thick weather, had gone on the Long Bank.

Voted 150*l.* 13*s.* to pay the expenses of the life-boats stationed at North Sunderland, Sutton, Great Yarmouth, Margate, Caister, Cleethorpes, Dungeness, Banff, and Broadstairs, in either assembling the crews, or in putting off in reply to signals of distress from various vessels, which subsequently got out of their dangerous positions without the aid of the life-boats.

Also 13*l.* to some Scratchy beachmen for putting off in their large life-boat, and after great difficulty, saving 5 men from the schooner *Mary*, of Goole, which became a total wreck near Scratchy, during a gale from the E.N.E., on the 4th March.

The Institution subsequently also granted 5*l.* to the beachmen to assist them to repair their haul-off warp, which had been seriously damaged in this service.

Also 5*l.* to eight men belonging to Donna Nook, Lincolnshire, for wading into the surf, and rescuing the crew of 5 men from the smack *James Evans*, of Hull, which became a wreck near the Slate Run, during a N.E. gale, and in very severe weather, on the 12th Feb.

Also the Thanks of the Institution and 1*l.*, to Mr. WILLIAM McFAUL, Chief Officer of Coast-guard at Branksea, near Poole, and 10*s.* each to four other men, for putting off in two small boats, and saving 2 men from a Poole yawl, which had sunk off Branksea, while it was blowing hard from the S.W., on the 1st March.

Also 2*l.* to four men for wading into the surf, and rescuing 2 men belonging to the barque *Mira*, of Nova Scotia, which was wrecked off Hogsthorpe, on the Lincolnshire coast, on the 14th Feb.

Also 2*l.* to eight men for putting off, in a small boat, and saving 4 men from a fishing-boat, which had capsized off Dunrossness, Shetland, during squally weather, on the 19th Feb.

Also 3*l.* to four of the crew of the Penmon life-boat for putting off, in a shore-boat, at much risk, and rescuing the crew of 2 men of the smack *Penrhyn*, of Bangor, which had gone ashore at Puffin Island, during a strong wind and heavy sea, on the 6th Feb.

Also 2*l.* to four men for going off, in a shore-boat, and saving 2 men from a boat belonging to the brig *Florence Pope*, of Newport, which had been abandoned off Innistoe, Ireland, on the 4th Feb.

Also 2*l.* to seven men for putting off, in a small boat, and rescuing 4 men from the schooner *Jill*, of St. Mary's, Isle of Man, which had stranded on Caerhayes Beach, on the coast of Cornwall, during a gale from the E., on the 14th Feb.

Also 1*l.* to two men for their services, on the occasion of the wreck of the brig *Blossom*, of Whitby, near Boscastle, on the Cornish coast, on the 13th Sept. last.

Thursday, 5th May: 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 and approved the Report of the Inspector of Life-boats to the Institution, on his recent visits to Kingsgate, Margate, Broadstairs, Weymouth, Poole, and Lyme Regis.

Also the Report of the Assistant-Inspector of Life-boats, on his recent visits to Llandulas, Whitehaven, Seaham, North Sunderland, Holy Island, Ross Links, and Berwick-on-Tweed.

Reported the receipt of 200*l.* from Lady B., being the first instalment of her gift to the Institution—in memory of her late Husband—of the cost of the life-boat to be stationed at Chapel, on the Lincolnshire coast.—*To be thanked.*

Reported the receipt of the following special contributions since the last meeting:—Hull Branch, per W. DYSON, Jun., Esq., 120*l.* 2*s.*; King's Lynn Branch, per F. J. CRESSWELL, Esq., and Mr. WM. HITCHCOCK, 89*l.* 8*s.* 3*d.*; Ilfracombe Branch, per NATHANIEL VYE, Esq., 50*l.*; Proceeds of a Concert at the Duke's School, Alnwick, per Mr. THOMAS COLLINSON, 7*l.* 7*s.*; Proceeds of an Entertainment at Sandwich, per G. COLEMAN, Esq., 4*l.* 4*s.*; Collected by Capt. N. MARQUAND, of the barque *Matchless*, of Guernsey, on his last visit to the West Indies, additional, 2*l.* 5*s.*; Collected on board H.M.S. *Crocodile*, after an amateur dramatic entertainment, per ALFRED POSTANCE, Esq., R.N., 1*l.* 2*s.*—*To be severally thanked.*

Produced extracts from the following wills containing legacies to the Institution:—The late JOHN ROBERTS, Esq., of Jermyn Street, 200*l.*, duty free; and the late Mrs. MARY GREAVES, of New Brighton, 19*l.* 19*s.*

Ordered that life-boat houses be built at Palling, Norfolk, and at Ballantrae, in Scotland, at an expense of 352*l.*

Reported the transmission to its station of the new life-boat for Kingsgate, the South Eastern Railway Company having readily granted a free conveyance to the boat.—*To be thanked.*

Read letter from Dr. LABOURETTE, of Lisieux,

France, of the 18th April, expressing his satisfaction that the Institution had adopted his suggestion regarding the clenching of the jaws, &c., in its new instructions for the restoration of the apparently drowned.

Read letter from the Admiralty, of the 29th ult., thanking the Society for the copies of these new instructions.

Reported that the Boulogne Shipwreck and Humane Society was about to have, through Colonel Sir JAMES E. ALEXANDER, a life-boat built, on the plan of the Institution, by the Messrs. FORRESTER, of Limehouse, and that the Society wished to have the building of the boat conducted under the superintendence of the NATIONAL LIFE-BOAT INSTITUTION.—*To be complied with.*

Read letters from Mr. R. E. BARKER, of Clifton, and Mr. W. SLEEMAN, of Helston, calling attention to their respective plans for saving life from shipwreck.—*To be acknowledged.*

Paid 2,200*l.* 12*s.* 7*d.* for sundry charges on various life-boat establishments.

Voted 9*l.* 9*s.* to pay the expenses of the Blackpool life-boat in putting off on the 22nd April, and rescuing the crew of 2 men from the sloop *Sprightly*, of Preston, which, during a gale from the S.W., had stranded on the Crusader Bank.

Also 16*l.* 1*s.* to pay the expenses of the Berwick-on-Tweed life-boat in going off on the 23rd March and saving 5 men from the schooner *Margaret*, of Whithorn, which, during a gale from the N., was wrecked on Spittal Point.

Also 13*l.* 7*s.* to pay the expenses of the Valentia life-boat in going out on the 10th Feb. to the assistance of 4 of the crew of the barque *Ansell*, of St. John's, New Brunswick, who had taken refuge on the Skellig Rock. Owing to the violence of the sea, however, the life-boat was unable to effect a landing at the rock, and the men had to await another opportunity of reaching the shore.

Also 8*l.* 19*s.* 6*d.* to pay the expenses of the Arklow life-boat in putting off on the 13th April with the view of rendering assistance to a brigantine which had been seen on the Arklow Bank. On the life-boat arriving at the bank, the vessel was however found to be completely submerged and abandoned.

Also 12*l.* to pay the expenses of the Barmouth life-boat in going off on the 21st April to the assistance of the crew of the smack *Mary*, of Carnarvon, which, during a strong wind from the S.W., had grounded on Barmouth Bar. The crew, however, refused to leave, and their vessel subsequently got out of danger.

Also 2*l.* 10*s.* 6*d.* to pay the expenses of the Rhyl life-boat crew in assembling on the 28th April with the view of launching the boat to assist a schooner which had gone on the West Hoyle Bank. The life-boat, however, was not required to be launched, the vessel having got out of her dangerous position.

Reported the services of the Palling life-boat, in going out, on the 28th April, in reply to signals of distress from the ketch *Shoreham*, of Shoreham. The vessel was taken in tow by another ketch, and the life-boat accompanied them to Yarmouth.

Also the services of the Newbiggin life-boat, in putting off, on the 25th March, to the assistance of six distressed fishing cobs, during a strong wind from the E.N.E.

Voted 3*l.* to six men for going off, in a boat, and saving 3 men belonging to the lugger *Ocean Pride*, of Peel, which, during a fresh gale from the N., had sunk near Rhosneigr, on the Anglesey Coast, on the 11th March.

THE LIFE-BOAT.

STORM on the waters; and the cruel wind
Howls like a savage beast whose riven chain
Hath loosed to slaughter; on the shore the grind,
The rush, the hiss of the vexed waves complain,
Sounding like solemn dirge, 'mid plash of driving
rain.

Darkness upon the deep! No pale moonbeam
Pierces the awful blackness; not a ray
Of flickering starlight sheds its cheerful gleam,
Shining like Hope upon the sailor's way,
Where the lone barque ploughs on 'mid clouds of
blinding spray.

Peril at sea! The huge waves seem to seethe
In awful wrath: their summits curl in foam,
Like snow-crowned mountains; and brave men
will breathe
A prayer for safety, as they think of home
And those for whose dear sake they on the
waters roam.

Death on the ocean!—for the close-reefed sails
Rend into tatters, and stout spars are sprung
And shivered, while the helm no more avails
To guide the helpless ship which drifts along
To where 'gainst the dark rocks the whitening
waves are flung.

Death on the ocean! for a wave lifts high
The hapless wreck; then with a shock descending,
She strikes: the seas sweep o'er her, and the cry
Of drowning men with crash of masts is blending,
As o'er the side they fall, bulwarks and timbers
rending.

Help on the cruel sea!—and help is near,
Help ever ready round Old England's shore!
For keen eyes watch, and hearts that know no
fear

Are waiting, and strong hands to grasp the oar,
The Life-boat speeds to save, or to return no more.

Dawn on the waters!—see the blue and white*
Of the stout oars gleam at each lusty sweep
With clearer radiance in the pale grey light,
As o'er the heaving waves the day-beams creep,
Casting through lurid clouds strange lustre o'er
the deep.

Help for the helpless!—from the breaking ship
They see her, and the gun its signal booms
To haste their coming; and the bright oars' drip
And flash and sparkle, seem like angels' plumes
To the despairing eyes which Hope once more
illumes.

Joy on the sea!—Swiftly the good boat bears
Homeward her rescued freight before the gale:
And wives will cease to weep, and mothers'
prayers

Are changed to blessings, and the children's wail
Is hushed, as on the beach the Life-boat lowers
her sail.

Brave English hearts!—no page in Britain's story
Shines brighter than the one wherein we see
Your deeds recorded. While the warrior's glory
Is dimmed by tears and blood, stainless shall be
Your wreath who stake FOR LIFE your lives
against the sea.

S. CASWELL, Hon. Sec.,
Fleetwood Branch of the
Royal National Life-boat Institution.

June, 1870.

* The oars of the boats of the NATIONAL LIFE-BOAT INSTITUTION are painted of two colours—those rowed on one side of a boat being blue, and on the other side white; and in all words of command applying to them, the colour is named instead of the terms starboard and larboard, which is found to prevent confusion.

