## THE LIFE-BOAT.

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OF THE

## Royal Hational Life=Boat Institution.

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#### SKETCH OF THE PROGRESS MADE IN THE CONSTRUCTION OF COAST LIFE-BOATS.

1785-1900.

No. 8.

THERE remains but one type of Life-boat to which reference is necessary to complete the description of those boats which are propelled either by sail or The Cromer type bears so strong a resemblance to the Liverpool Lifeboats that only a short account of it is desirable. The Cromer men from 1858 to 1884 had been supplied with selfrighting life-boats; in the latter year it became necessary to build a new Lifeboat for the station. The Cromer fishermen resolutely refused to have another of this type and requested the Committee to build them a boat very similar to one which they used prior to 1858, and to which they were very much attached; the boat in question was 32 ft. 3 in. long, 10 ft. 6 in. beam, 3 ft. 7 in. deep, pulled twelve oars, and was not self-righting.

The boat which was built in 1884 at the crew's request was of very much the same description, but was 35 ft. long, 10 ft. beam, and pulled fourteen oars. This boat gave the name to the type;

been asked for and built, and these are stationed Blakeney and Wells The general features of in Norfolk. these Life-boats can be seen from the accompanying diagrams, and further description is unnecessary. One of these Life-boats competed in the Life-boat trials held at Montrose in 1893, but found little favour-in fact was placed last by the coxswain judges, out of the seven competitors. The Liverpool type, which has been very much improved, and which is so very similar to the Cromer type, finds many adherents on the coast and consequently it is improbable that any more Life-boats of this latter type will be built.

Steam Life-boats are of such comparatively recent introduction, and have been so fully described in the Life-boat Journal from time to time that it is not proposed to enter exhaustively into their details on the present occasion.

The problem of designing a mechanically propelled Life-boat had engaged the thoughts of the Committee of Manageonly two others have, up to the present, ment and Officers of the Institution for a great number of years. Reference has been made in No. 4 of this series of articles to the model of a steam Life-boat submitted for competition for the Northumberland Prize by Mr. G. Remington, C.E., of Warkworth, and between that period (1850) and 1886 the subject of steam

the Liverpool Exhibition, and were examined by this sub-Committee, but they were unable to recommend the adoption of any of them. The coxswains of various Life-boats were interrogated, chiefly those accustomed to work their boats in conjunction with a tug, and Life-boats occasionally cropped up, but they were unanimous in their opinion

# CROMER TYPE. Fig. I. PROFILE. Fig. 2. DECK PLAN. Fig. 3. Fig.4.

- A.—The deck.
- B.—Relieving valves for automatic discharge of water off the deck.
- C.—Side air-cases above deck.
- E.—Wale or fender.
- G.—Water-ballast tanks.

BODY PLAN.

it was not until 1886 that any attempt was really made to grapple with it in earnest. The Committee of Management then appointed a sub-Committee to enquire into the practicability of applying steam to Life-boats. Various

that the system then in vogue was much better than having steam applied to the Life-boat itself. In 1887 the Committee resolved to offer a gold and a silver medal for drawings or models of a mechanically propelled Life-boat best models and drawings were shown at adapted to meet the conditions under

MIDSHIP SECTION.

THE FIRST STEAM LIFE-BOAT OF THE ROYAL NATIONAL LIFE-BOAT INSTITUTION.

which Life-boats are called upon to do their work. Also a gold and a silver medal for models or drawings of a propelling power suitable for self-righting Competitors were given five months to prepare their designs, and at the end of that time the drawings and models were submitted to three judges chosen outside the Life-boat Institution, viz.: Sir Digby Murray, Bart., Sir Frederick Bramwell, and Mr. John I. Thornycroft. These gentlemen reported they had carefully considered all that was submitted to them and were of the opinion that none of the designs was suited to the requirements of the ROYAL NATIONAL LIFE-BOAT Institution, and that therefore they were unable to award the medals.

It was not until June 1888 that the Committee of the ROYAL NATIONAL LIFE-BOAT INSTITUTION were in a position to take practical action with regard to the subject which had received so much earnest thought and had been under discussion for so many years. early part of the year a model of a steam Life-boat was submitted to the Institution by Messrs. R. & H. Green, the well-known shipbuilders at Black-To thoroughly adapt the proposed vessel to the requirements of a Life-boat it was necessary to modify the original model, and after consultations with the Committee and their professional officers a satisfactory settlement as to details was arrived at, and on the 14th June Messrs. R. and H. Green were instructed to build the first steam Life-boat.

The principal dimensions of this boat are: length, 50 ft.; extreme breadth, 14·3 ft.; and depth, 3 ft. 6 in. The material of which she is constructed is the very best steel that could be procured, and one-third more rivets were used than is customary in torpedoboats; that is to say, a seam that would have been double riveted in a torpedoboat was treble riveted in the Life-

The vessel is divided into fifteen boat. compartments, and although not a selfrighting boat she has modified end-boxes, and in fact it is not until she has reached an angle of 110° from the perpendicular that her stability vanishes. The chief feature of the Life-boat is of course her method of propulsion, viz., a turbine wheel driven by engines developing 170 horse-power, the steam being supplied by a water-tube boiler of Messrs. Thornveroft's design. The vessel was put through very exhaustive trials, and it was not until September 1890 that she was sent to her station at Harwich. A full description of the Duke of Northumberland, for such is her name, is to be found in the Life-boat Journal, November 1890. The accompanying illustration (page 523) will however serve as a reminder of her general appearance.

After two years' service at Harwich the Duke of Northumberland was transferred, first to Holyhead and then to New Brighton, and it is interesting to note that when at Cowes on her way round, His Majesty the King (then Prince of Wales) and also H.I.M. the German Emperor visited the Life-boat and went for a run in her. In 1897 a new steam Life-boat was sent to New Brighton and the Duke of Northumberland was transferred back to Holyhead. where she is at present, and is very much appreciated. Since her first being stationed at Harwich she is credited with having saved 127 lives, and saved or assisted to save eight vessels.

A second steam Life-boat was ordered in June 1893, to take the place of the Duke of Northumberland at Harwich. Some departures in the original design were made in this boat, the length was 52 ft. and beam 15 ft., and her designer (Mr. Watson) gave her a different form of bow. Her engines and boiler were likewise of a different type, and were designed by Messrs. Penn, the hull was built by Messrs. R. & H. Green. Instead of a single horizontal turbine for pro-

pelling the boat two vertical ones were fitted, and driven by engines indicating 200 horse-power, but the result did not come up to expectations. A description of this boat will be found in the Life-

given in the Life-boat is for February, 1898. In this boat the horizontal turbine was reverted to, and her lines considerably improved, so as to get a better speed than had been boat Journal for February 1894. She attained by the City of Glasgow.

#### STEAM LIFE-BOAT.

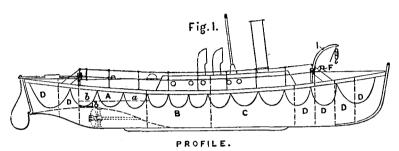
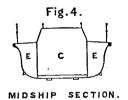


Fig.2. O E O 0000 DECK PLAN.

Fig. 3. BODY PLAN



A.—Cockpit.

a.—Deck.

b.—Propeller hatch.

c.—Relief valves.

B.—Engine room.

C.—Boiler room.

D.—Water-tight compartments.

E.—Coal bunkers.

F.—Capstan.

G.—Hatches to engine and boiler rooms.

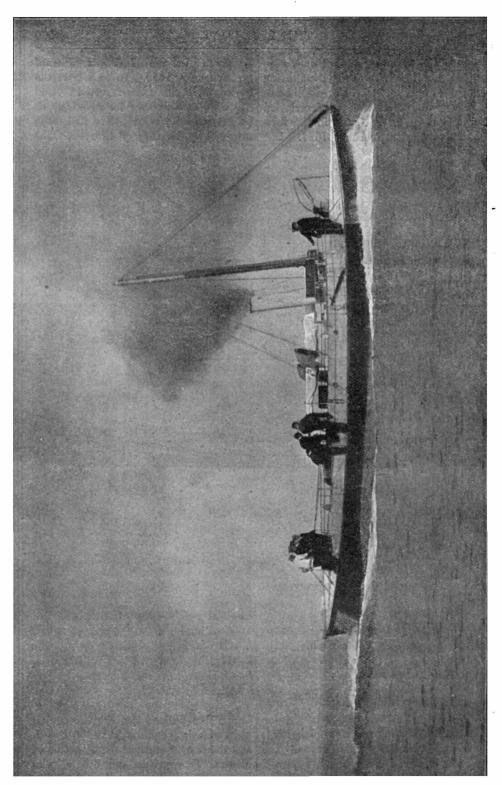
H.—Cable reel.

I .- Anchor davit.

was named the City of Glasgow, and was | placed at Harwich in November 1894, but was ultimately sold out of the service in 1901.

The next Steam Life-boat built was the Queen, a full description of which

Committee decided to make the experiment of using liquid fuel in the Queen, and the matter engaged the attention of Messrs. Thornycroft and others, who made exhaustive trials before the boiler was placed in the boat. Much difficulty



THE FIRST SCREW STEAM LIFE-BOAT OF THE ROYAL NATIONAL LIFE-BOAT INSTITUTION.

was however encountered in obtaining perfect combustion, but ultimately a fairly satisfactory system was adopted which entailed the introduction of an aircompressing engine for spraying the oil into the furnace. The results however could not be called successful, and after four years' experience it was decided to remove the liquid fuel arrangements from the Life-boat and revert to the use of coal only, the boat having been fitted so that either or both could be The Queen was stationed at New Brighton in October 1897, and is very popular there with her crew.

On it becoming necessary to build two more Steam Life-boats in 1898, the Committee and technical officers of the Institution decided to make a departure from the previously-employed method of propulsion. The turbine, although satisfactory in many respects, had not altogether fulfilled its promise (see description of the Steam Life-boats for

Grimsby and Padstow in the Life-boat Journal, February 1899), and it was decided that the new vessels should be propelled by a single screw fitted into a cavity formed in the vessel's structure under the cockpit, about half way between the after end of the engine room and the stern post. The position will be readily seen in the plans (page 525). The two boats, which were destined for Padstow and Grimsby, were built and engined by Messrs. J. S. White & Co., of East Cowes, and provided with watertube boilers of Messrs. White & Foster's They attained a speed of a little over  $9\frac{1}{4}$  knots with ease, or  $\frac{3}{4}$ knot faster than the Queen. The accompanying reproduction of a photograph shows the first of these Life-boats running a trial trip on the measured mile. A third boat of this description has been built and stationed at Harwich to take the place of the City of Glasgow, which name she also bears.

(To be continued.)

## BRAVE LIFE-BOAT MAN.

WHILE the King was affoat in April last off the Scilly Islands with Mr. Dorrien-Smith, the President of the Scilly Isles Branch of the ROYAL NATIONAL LIFE-BOAT INSTITUTION, in the latter's steamlaunch, Mr. Dorrien-Smith was telling him about the splendid work done by the coxswain of the St. Mary's Life-boat in taking the boat on a fearful night among some of the most dangerous rocks of the Isles, in the vain endeavour to save lives from the ill-fated Italian barque Lofaro. Just as Mr. Dorrien-Smith had finished telling this to the King, the very man, Eustace Thomas, passed in his own boat, and Mr. Dorrien-Smith pointed him out to his royal guest. The King immediately, with grave courtesy, doffed his cap and bowed to the man whom he considered worthy of this special mark of esteem.

#### THE KING'S COURTESY TO A THE TALE OF THE LIFE-BOAT MAN.\*

Don't you see the signal seaward? Can't you hear the rocket scream?

Men and women start and listen, children waken from a dream;

All the village wakes to action, all the storm is on the yell-

Buckle on your life-belts, brothers! Don't you hear the Life-boat bell?

Hark! the coxswain's voice is calling. All their noble faces scan;

In the roll of British heroes, who can beat the Life-boat man?

What is danger to a Briton? What is life with life to save?

Tear them from their wives' embraces! Launch the boat upon the wave!

When the ship is driving shoreward, who has turned a coward? When?

Men die daily for their duty, die to save like Englishmen!

Sailors, steady, strip for action! soldiers, cheer the trumpet's call! But the Life-boat men of England are the

bravest men of all! C. S.

\* From The Free Lance.

#### LIFE-BOAT SATURDAY FUND.

For the last four months the Life-boat Saturday Committees and Ladies' Auxiliaries have been busily endeavouring to maintain in 1902 the grand record of net receipts obtained by the Fund throughout the United Kingdom last year for the ROYAL NATIONAL LIFE-BOAT INSTITUTION. Notwithstanding the enormous cost to the empire of the South African War and its many concomitant evils - including an increased income-tax — and the special, but very proper, calls to liberality and benevolence directly connected with the coronation of our beloved Sovereign, the patron of the Life-boat Institution, the self-denying activity and earnest zeal of the Life-boat Saturday workers has been crowned with very fair success. Towns which had hitherto held aloof from the movement have in several instances joined the ranks of enthusiastic friends of the fund, and the interest excited throughout the country in the great and very important lifesaving work of the Institution would seem to be on the increase rather than otherwise. It is felt by all taking an interest in the Life-boat cause that, whatever happens—whether times are good or whether times are bad-the Life-boat Service must be properly and liberally supported, and that it is the duty of all true Britons to do their utmost to minimize the terrible loss of life from shipwreck which annually takes place on the rock-bound shores of Great Britain and Ireland. One very important object of the ROYAL NATIONAL

LIFE-BOAT INSTITUTION is—as indeed it has always been—to properly recognize the gallant men who man the Life-boats for their self-sacrificing services, and to let them feel not only that their heroic labour is appreciated by their fellowcountrymen, but that in the event of evil befalling them when engaged on their all-important duties, those they leave behind them will be succoured and comforted. This part of Institution's work is more particularly attractive to many of our Life-boat Saturday friends, and it is certainly a good object on which to base an urgent appeal for financial help. When it is considered how much depends on the safety of our men and ships who place us in possession of so many of the necessaries of life, the efforts made by any to raise funds to maintain an Institution which is endeavouring to prevent "sorrow on the sea" should receive a sympathetic and generous response.

On the 29th May last the London Life-boat Saturday Fund, under the chairmanship of Admiral Lord Charles Beresford, M.P., arranged a Special Matinée at the Alhambra, which was patronized and attended by T.R.H. the Prince and Princess of Wales, H.R.H. the Duke of Connaught also patronizing it, besides many leading members of the aristocracy and of London society. Such efforts to secure increased financial support for the Institution are most gratefully appreciated by the Committee of Management.

#### ADDITIONAL STATIONS AND NEW LIFE-BOATS.

Bembridge, Isle of Wight.—It will be remembered by our readers that on the occasion of the Jubilee of our late beloved Queen Victoria, in the year 1887, the Committee of Management, with the sanction of Her Most Gracious Majesty, who was the Patron of the

Institution, decided to place on the coast and maintain in perpetuity a Lifeboat to be named the *Queen Victoria*. The station selected by the Queen for the boat was Bembridge, on the northeastern shore of the Isle of Wight, and the ceremony of naming was performed

by H.R.H. the Duchess of Edinburgh, who came over from Osborne in the royal yacht Alberta, and was accompanied by H.R.H. the late PRINCE HENRY OF BATTENBERG and the late PRINCE ALFRED OF EDINBURGH. was of late found that the Life-boat was hardly powerful enough for the station, and accordingly she has been replaced by a new self-righting boat, 35 ft. long,  $8\frac{1}{2}$  ft. wide, and rowing ten oars double-banked. She is provided with masts and sails, and has a sliding or drop keel, two ballast tanks, and all the latest improvements. H.R.H. the PRINCESS BEATRICE has graciously con-

for providing buoyancy, but air-chambers were built in at both bow and stern, portable ones being fitted along each side under the thwarts, so as to keep the boat afloat in the event of shipping water to any considerable extent, sufficient buoyancy having been provided by these means. A very efficient form of double-throw pump has been fitted amidships at the request of the local Life-boat authorities. The boat rows six oars, and has that number of thwarts, giving the men plenty of room to work. On account of her lightness and sharp form under water she is very fast and easy to row. With good sented to perform the ceremony of handling, the chances of being swamped



naming this new Life-boat, the Queen Victoria, on Saturday, 23rd August.

POOLBEG, DUBLIN BAY.—The Lifeboat stationed by the ROYAL NATIONAL LIFE-BOAT INSTITUTION some years since at Poolbeg, near the entrance to the River Liffey, has been replaced by a new one, 29 ft. long, and 6 ft. 6 ins. wide, intended entirely for work under oars in comparatively smooth water. She is of the whale-boat type, built of two skins of thin mahogany with calico and white lead between. Care was taken to keep the weight of the boat down as much as possible, and when finished she weighed about 15 cwt., exclusive of crew and gear. It was not advisable in so small a boat to fit a deck and all the usual Life-boat arrangements

are remote, and even were she by chance swamped, the crew would be in no danger of sinking.

The building of the boat was entrusted to Mr. J. N. ATKINSON, of Bullock Harbour, near Kingstown, and great credit is due to him for the manner in which the work was carried out. Several modifications and improvements were introduced into the boat at the suggestion of those interested in Lifeboats in Dublin Bay. It is mainly due to them that so smart a little boat was The cost of the new boat turned out. and equipment has been defrayed from a legacy received by the Institution from the estate of the late Mrs. E. A. Cres-WELL, of Egham, Surrey, and in accordance with the wishes of the testatrix, the boat is named the Richard Creswell.

HAUXLEY, NORTHUMBERLAND; LOOE, CORNWALL: LLANDUDNO AND PORTH-CARNARVONSHIRE: DINLLAEN, SCAR-BOROUGH AND TORQUAY.—The Life-boats on these stations have also recently been superseded by new boats of the self-righting type, fitted with all the most modern improvements. With the exception of that for Scarborough, the boats were provided by bequests received by the Institution, and are named in accordance with the wishes of the donors, as follows:-Hauxley, the Mary Andrew, legacy of the late Miss Andrew, of Hale, Cheshire. Looe, his brothers and uncles.

the Ryder, the late Mr. WILLIAM RYDER. of Brixton. Llandudno, the Theodore Price, the late Miss A. G. G. ROLLESTON, of Hyde Park Terrace, London. Porthdinllaen, the Barbara Fleming, the late Miss JANE ISABELLA FLEMING. Rayrigg, Windermere, Torquay, the Wighton, the late Mrs. M. A. Wighton, of Hornsey. The late Scarborough Lifeboat was endowed, and the new boat, therefore, like her predecessor, is named the Queensbury; the original donor was HERBERT S. FOSTER, Esq., and the endowment was carried out by him and

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

THURSO, CAITHNESS-SHIRE.—While a whole gale from W.N.W. was raging, accompanied by a very heavy and rain, on the night of the 5th January, 1902, signals of distress were observed from the schooners Emma Louise and Elizabeth Miller, both of Wick and bound for Thurso River with coal, the former from Hull and the latter from Shields. The Life-boat Cooperator No. 3 was launched at 1.15 A.M., and landed the crews of the vessels, seven men in all. The force of the gale carried away the Life-boat's mizen-mast and sprung her foremast, so that her sails had to be lowered, and being unable to return to her station under oars she was compelled to put into Thurso River Harbour. The Elizabeth Miller parted one of her chains, but both vessels rode out the gale.

COVERACK, CORNWALL.—The first service at this Life-boat station, which was established in the year 1901, was performed on the 13th January last. The barque Glenbervie, of Glasgow, bound from London for Algoa Bay, with a general cargo, stranded at Lowland Point in a strong S.E. breeze, a rough sea and very thick and cold weather. She showed signals of distress and in less than ten minutes after they had been seen the Life-boat Constance Mélanie was launched. The time was

then 8.35 P.M., the night intensely dark, and the choppy seas running amongst the rocks rendered it impossible for the Life-boat to get alongside the vessel; she therefore anchored about fifty yards from her, got the vessel's crew, consisting of sixteen all told, safely on board and landed them at 10.45. When they left the barque there was every prospect of her becoming a total wreck. Life-boat behaved excellently and the service was highly creditable to her crew.

WINTERTON, NORFOLK.—The steam trawler Teal, of London, returning to Lowestoft from the fishing grounds, in thick weather, on the night of the 17th January, stranded about a mile N. of Winterton. At about 1 A.M. she was seen by the look-out man, who at once gave an alarm, whereupon the No. 1 Life-boat Edward Birkbeck was launched, and proceeded to the trawler. The Lifeboatmen were engaged by the master to assist to get the vessel afloat. At daybreak an anchor was laid out, to which was attached a wire hawser, and ultimately, on the 20th January, the steamer was re-floated.

Rockets and guns were fired by the Would Light-vessel on the 3rd February. A moderate breeze was blowing at the time from E. by S., there was a heavy

sea and the weather was thick, with rain and sleet, and very cold. At 6.53 P.M. the No. 2 Life-boat Margaret was launched and falling in with the s.s. Harlow, of London, was kindly taken in tow until a steam-tug came up. speaking the Light-vessel it was ascertained that flares had been seen about five miles E.N.E. The Life-boat was towed in the direction indicated, and eventually found the barque Chili, of Gefle, riding at anchor. She had lost her masts and rudder and was waterlogged. The Life-boatmen boarded her, remained by her during the night, and on the arrival of steam-tugs on the following day she was taken in tow and beached at Winterton, where her crew of fourteen men were safely landed by the Life-boat. The barque was bound from Christiania for East London, Cape Colony, with a cargo of timber.

JOHNSHAVEN, KINCARDINESHIRE.—A telephone message having been received from Gourdon, on the 25th January, intimating that a schooner was ashore at the Burn of Benholm, which is about a mile and a half eastward of Johnshaven, the Life-boat Sarah Ann Holden was blowing from N., the sea was moderate and the weather very cold, with snow showers. The stranded vessel proved to be the Lord Clyde, of Banff, homeward bound from Sunderland, with a cargo of coal. When the Life-boat reached her the Rocket Brigade had succeeded in throwing a line over her, but the crew did not wish to leave as she was not leaking. however, ultimately decided to avail themselves of the Life-boat and were taken safely ashore. It was arranged that the Life-boat should take them back to their vessel at the flood tide if the weather permitted. At 10.30 P.M. the Life-boat left the harbour for this purpose, but the wind increased to a gale, there was a heavy sea, and it was found utterly impossible to get near the vessel. The Life-boat laid by for about two hours and then returned. It proved fortunate for the crew that they had left the schooner, as at 2 o'clock her masts fell, and at daylight she was seen to be breaking up.

Moelfre, Anglesey.—On the 25th January a strong gale was experienced from N.N.E., accompanied by a heavy sea, very cold weather and snowstorms, and the crew of the Life-boat Star of Hope were on duty all night, as there were three vessels at anchor in the bay and in a perilous position. At 11 o'clock the barquentine Ethiopia, of Wicklow, laden with coal, signalled for assistance; having dragged her anchors for about two miles, she was in shoal water and on a lee shore. Her crew of six men were rescued by the Life-boat. Shortly after landing them, at 1.45 A.M., the Life-boat was called out by the schooner Lily Green, of Liverpool, also laden with coal, which had dragged her anchors for about three miles. Having taken off her crew of three men the Life-boat spoke the third vessel, but the crew said they could not leave her as she was leaking, meaning no doubt that if the pumps were abandoned she would They however asked that founder. the Life-boatmen would keep a sharp look-out and be ready to proceed to their assistance at once in the event of their making signals of distress. She was watched until day had broken and the gale had abated, but her crew did not need any help.

FLAMBOROUGH, YORKSHIRE.—The coastguard having reported that a vessel was burning flares S. of the Head, near the Smithic Sands, while a whole gale was blowing from N.W., with a heavy sea, on the 26th January, the Life-boat Matthew Middlewood was launched about 3.35 A.M., and rescued the crew of eight men from the vessel, the barquentine Aurora, of Guernsey. At about 9 A.M. the weather moderated, and the master and crew being anxious to return to the vessel, the Life-boat was again launched for this purpose, and put on board the crew and some boatmen, who were successful in taking the vessel to a safe anchorage about 5 P.M.

HAYLE, CORNWALL.—The s.s. Fleswick, of Whitehaven, coal laden from Neath for Hayle, stranded on the eastern spit of Hayle Bar, in a strong gale from N. and a very heavy sea, on the 28th January. At 7.55 p.m. the Life-boat

E. F. Harrison put off to her assistance and rescued her crew, consisting of eleven men and a pilot who was on board. The rescued men were safely landed at 9.35 p.m. The Life-boat sustained damage in effecting this rescue, the yoke of the rudder being broken and five oars were broken and lost. She was, however, admirably handled by the coxswain, and the service was altogether a trying one for the whole of the crew.

Gorleston, Norfolk. — The coastguard having informed the coxswain of the Life-boat Mark Lane that a vessel was burning flares in Yarmouth Roads, while a whole gale was blowing from the E., accompanied by a heavy sea, on the 31st January, the Life-boat was launched at 11 P.M., and found the brigantine Volant, of and from Limerick, bound for West Hartlepool, riding at one anchor, her other cable having parted. As she was driving towards the Outer Bank, the Life-boat stood by her during the night, and on the following morning the vessel was towed into the harbour.

CULLERCOATS, NORTHUMBERLAND.—Eight fishing-cobles were endeavouring to return home while a heavy sea was breaking on the bar on the 31st January. As they would incur considerable risk in crossing, the Life-boat Co-operator No. I was launched at 11 A.M., taking out spare life-belts, which were handed to the fishermen, and stood by the boats until they safely reached the shore.

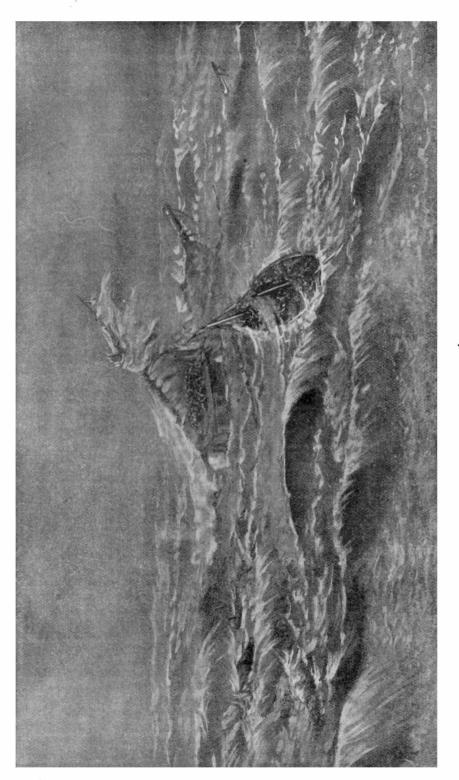
Wexford, Co. Wexford.—On the 31st January the s.s. Belle, lightship tender, while returning to Wexford from the Lucifer Shoal Light-vessel, in a moderate breeze, with a moderate sea and thick weather at times, grounded on the E. end of the Swanton Bank. In response to her signals of distress, the Life-boat James Stevens No. 1, proceeded to her assistance at 6.30 p.m., and stood by her until nearly high water, when she floated and was warped off the sand, an anchor having been laid out for that purpose.

RAMSGATE, KENT.—While endeavouring to return to the harbour, in a whole

gale from E. and a heavy sea, on the 1st February, the smack Lottie struck the West Pier, and was driven to the back of it. Her anchor was let go but it did not hold, and ultimately the cable parted, and an attempt to assist her by means of a line thrown from the pier was ineffectual. Three of the crew who took to their boat were got on to the pier, and one man, who was left on board the smack, which drifted into the surf on the rocky beach, was rescued by the Life-boat Bradford.

St. Mary's, Scilly Islands.—The Life-boat Henry Dundas put off at about 11 a.m. on the 1st February, and for some hours remained by the ketch Ada, of Gloucester, which had anchored in a bad position in St. Mary's Sound, and was leaking. A strong gale was blowing from E.N.E., the sea was rough, and the weather very cold.

CLACTON-ON-SEA, ESSEX.—The coastguard having informed the coxswain of the Life-boat Albert Edward, on the morning of the 2nd February, that signals had been fired by the Swin Middle Light-vessel, he summoned the crew, and at 5.30 the Life-boat was launched. On speaking the light-vessel the coxswain was informed that the signals had been fired in answer to those of the Mouse Lightship, and the boat at once proceeded in that direction and found the s.s. Dungonnell, of Glasgow, bound from Grangemouth for London, with coal, stranded on the Black Tail Spit. A whole gale was blowing from the E. and the sea was very heavy. The Life-boatmen were engaged to jettison the cargo, and they continued to do so until 5 p.m., when the sea increased to such an extent that it became necessary to batten down the hatches. At 7 o'clock the engines were put astern, but before high water they were choked with sand, and the ship did not move with that tide. At 9.30 the jettisoning was again commenced, and continued until 4.30 A.M., when one of the steamer's boats was launched and took a line to a steam-tug, by means of which a tow-line was brought to the vessel and made fast. At high



THE RESCUE OF THE CREW OF THE NORWEGIAN BARQUE "WINNIFRED" BY THE ALDEBURGH LIFE-BOAT.

water the tug succeeded in towing the vessel off the sand, and at once her anchor had to be let go so as to avoid collision with another vessel. The crew of the steamer, eleven in number, were so thoroughly exhausted that the Lifeboatmen were requested by the captain to get in the anchor and the sixty fathoms of chain attached; this they did by manual labour, no steam-power being available. The tug then towed the steamer in the direction of Gravesend, the coxswain of the Life-boat accompanying her, and the boat returning to her station, which was reached at 3.15 P.M. on the 3rd February, the s.s. Merlin, belonging to the General Steam Navigation Company, of London, kindly towing her part of the way.

FALMOUTH, CORNWALL.—At 8 P.M. on the 4th February the Life-boat Bob Newbon launched, was intelligence having been received from the coastguard that a vessel was aground on the Black Rock. A moderate wind was blowing from E.N.E., and there was a moderate sea. On reaching the vessel she was found to be the schooner Snaefell, of Ramsey, Isle of Man, bound from Portmadoc for Ipswich, with a cargo of slates. It appeared that in entering the harbour she had to alter her course in order to avoid collision with another vessel and ran on the When the tide served she was taken by a steam-tug to a safe anchorage, the Life-boat standing by her until all danger was over.

POOLE, DORSET.—While a fresh wind was blowing from E.S.E. on the 5th February, a telephone message was received from the coastguard at Sandbanks stating that a vessel was on the Hook Sand and burning flares. The Lifeboat City Masonic Club was launched at 7.15 P.M., and proceeding to the sand, on which a heavy sea was breaking, found the ketch Jessie, of Boston, bound for Poole, with potatoes, striking At the request of the master, the Life-boat stood by until the vessel floated off the sand and made for Poole. The boat regained her station at 10.30 P.M.

WHITBY, YORKSHIRE.—At about 10.30 A.M., on the 7th February, two cobles, the Thomas and Richard and the Lady Morris, which had left the harbour for the fishing ground some six hours previously, were seen returning. The first boat, when about one hundred and fifty yards outside the bar, was struck by a sea which nearly swamped her. She was partly filled, but her crew managed with their oars to get her head to sea, pulled her clear of the broken water, anchored, and baled the water out of the boat. The sea continued to increase. and as it was evident that no coble could cross the bar with safety, the Life-boat Robert and Mary Ellis was launched, took the crews, six men in all, out of them, and safely landed the men. The boats were towed into the broken water and allowed to wash up on the beach, when they were drawn out of the water and placed in safety.

RAMSEY, ISLE OF MAN.—The schooner Ellesmere, of Runcorn, bound for Liverpool, with potatoes, had her mainsail and top-gallant sail torn in a gale from E. by S., on the 8th February, and anchored about three-quarters of a mile E.N.E. of the harbour. She was in a dangerous position, being near a lee shore, and in response to her signals for assistance the Life-boat Mary Isabella was launched at 9.30 A.M., and rescued her crew of three men. A rough sea was running at the time, snow was falling and the weather was very cold.

STAITHES, YORKSHIRE.—While the fishing cobles were out on the 8th February, a strong breeze from the E.N.E. sprung up, the sea became very rough and the weather being thick it was feared that some casualty might happen. The Life-boat Jonathan Stott was launched at noon and assisted the boats to regain their port.

HOYLAKE, CHESHIRE.—On the 11th February a man and his wife, walking from the mainland to Hilbre Island, were overtaken by a very heavy snowstorm, and as they had not returned, and it was doubtful whether they would have reached the island before it was surrounded by the tide, the Life-boat

Coard William Squarey was launched and proceeded in search of them. When the snowstorm ceased they were seen on what is known as the beach mark, or little eye, a rock with a landmark on it, surrounded by the tide. The woman, who was greatly exhausted, was carried into the Life-boat, and she and her husband, both of whom were wet through up to the waist, were taken safely ashore.

CRESSWELL, NORTHUMBERLAND.—The Life-boat Ellen and Eliza was launched at 5.45 A.M. on the 16th February, and proceeded to the s.s. Minerva, of Sunderland, which had stranded on Quarry Point in a strong breeze from S. by E., a moderate sea, and very thick and cold weather. The vessel was bound from the fishing-grounds for the Tyne. The Life-boatmen laid out a kedge anchor and assisted to get the vessel afloat, returning to their station at 9 o'clock.

ALDEBURGH, SUFFOLK.—About 8 A.M. with a cargo of ice, had a aground on the Sizewell b message was received stating that a steamer was blowing a succession of and drove ashore full of water.

short blasts from a foghorn and immediately afterwards another message arrived stating that a barque was ashore. A moderate breeze was blowing from W., the sea was rough, with a heavy swell on the shoals, and the The Life-boat weather was thick. Bolton was launched, and, proceeding in a northerly direction, saw a barque ashore about four hundred yards from Misner coastguard station. Two boats were leaving her, but the sea being too heavy for them to land, they were making for a steamer which was aground on the Sizewell Bank. The Life-boat made for the steamer, the Lorne, of Hull. bound for London with grain. Just before the Life-boat arrived alongside. the steamer got off the sand. barque's crew, consisting of ten men, were taken into the Life-boat and safely landed at Aldeburgh. They reported that their vessel, the Loveid, of Porsgrund, bound from Norway for London with a cargo of ice, had also been aground on the Sizewell bank, but knocked over the sand, broke her back,

#### COAST FOG SIGNAL EXPERIMENTS.\*

THE general public, and especially those who live or have their business in the metropolis, have recently experienced the bewildering effects of fog on land, and will, perhaps, on that account have a sympathetic interest in what is being done to mitigate the perils and inconveniences to shipping traffic when fog settles down over the navigable waters adjacent to our coasts, when all warning sea-marks are hidden from view, when the beams of the most powerful electric light are quenched, and the seaman has only his chart, compass and lead to guide him through the devious channels leading to our ports and harbours. Owing to the enormous number of vessels continually passing and repassing our shores, the danger of collision is always present, even when it is fine and clear; but in thick weather this danger is largely increased, and the invisibility of light

\* From The Times, 29th November, 1901.

and beacons renders the perils of rocks and shoals much more threatening. The seaman's worst enemy is fog, and its mischievous effects can only partially be guarded against. For many years the Trinity House and other lighthouse authorities have endeavoured to solve the problem of conveying information to the mariner when fog shrouds all things from sight. The only other human sense which—so far as is at present known-can be appealed to is that of hearing, and efforts have accordingly been directed to the production of effective and distinctive sounds which may be sent out from points of land or lightships moored some distance from the coast, to indicate the locality to passing ships. About twenty-seven years ago the Trinity House, with the powerful aid of Professor Tyndall, made some extensive trials with sound signals at South Foreland. It was demonstrated, inter alia, that fog offered no obstruction to the passage of sound

through the atmosphere, and at the same time it was shown that the siren principle of producing powerful blasts of sound was more effective than any other method. Since that time siren sound signals have been largely introduced on the coasts of the United Kingdom, and without a doubt have been of the greatest service to mariners.

During the past summer the Trinity House, with the co-operation of the Scottish and Irish Lighthouse Boards, have carried out some further trials with sound signals, this time at St. Catherine's Point, in the Isle of Wight, observations on the sounds produced being made at sea. The objects of these trials were apparently to test practically certain theoretic improvements which had from time to time been introduced, to make trial of some new forms of sounding apparatus and trumpets, to determine the relative efficiency of notes of high or low pitch, to ascertain the air-pressure at which the siren yields the most effective results, to settle a question which had been raised as to the relative merits of sirens or reed horns as sound producers, to find out whether the sound was better distributed as required over the sea by one large trumpet with large-sized siren, or two smaller trumpets fixed at an angle embracing the arc required to be The special committee apguarded. pointed by the Trinity House to carry out these trials consisted of Captain G. R. VYVYAN, Deputy Master (Chairman), Admiral H. B. STEWART, Captains A. E. Bell, A. W. Clarke, and H. ACTON BLAKE, Elder Brethren, Mr. CHARLES A. KENT, Secretary to the Corporation, with Mr. E. PRICE EDWARDS as clerk to the Committee. Lord RAYLEIGH, Scientific Adviser, and Mr. Thomas Matthews, M.Inst.C.E., Engineer-in-Chief to the Trinity House, were also associated with the Committee, and rendered valuable advice and assistance in carrying out the investigation.

This committee have now made their report, the details of which, though, perhaps, caviare to the multitude, are of considerable interest to those concerned with coast-marking affairs and to those who go down to the sea in

waters. Some of the experiences recorded by the committee are striking. In one trial, a new form of disc-siren giving a very low note, 98 vibrations per second, out-distanced every other instrument; the sound was carried for  $20\frac{1}{4}$  miles as a good sound and might have been taken further, all other sounds, of higher pitch, being left behind at ten miles and less. This was on a fine, calm day; but on another occasion, with a very little force of wind blowing against the sound, the same instrument, sounding the same note was not heard beyond two miles, and, curiously enough, on that occasion the higher pitched note of another instrument was heard at a slightly increased This, and other similar exdistance. periences, have caused the committee to conclude that "for calm weather a lowpitched note is more suitable than a highpitched one; but when the wind is opposed to the course of the sound waves, or the sea is rough and noisy, a highpitched note penetrates further than a low-pitched one." As fog is seldom accompanied by wind or noisy sea, it would seem that a low-pitched note is most suitable for a fog-signal. Another remarkable experience to which the committee draw particular attention is the occurrence of what is called a soundless zone or silent area. Up to a mile from the signal station the sound of the instrument would be plainly heard; as the listener proceeded further it would sink to extreme faintness and at times to inaudibility; then at about three miles' distance the sounds would be recovered and carried in full hearing considerable distance. This phenomenon was experienced many times during the trials at St. Catherine's during fine, calm weather with smooth sea, but with any wind or disturbed sea surface it was not observed. Professor Tyndall's attention had been drawn to this matter by General Duane, of the United States Lighthouse Board, and he attributed the occurrence to the sound waves striking the smooth surface of the near sea and being reflected upwards, the reflected waves thus interfering for a certain distance with the direct waves proceeding from the sound producer. The committee consider that this liability ships and have their business in the great | to interruption of the sound at short distances should always be borne in mind by mariners, and that, if a sound signal is not heard when expected, the ship's position should be verified by the use of the lead. Another remarkable phenomenon manifested during the trials was the length and strength of the echoes from seaward breaking in upon the sounds from the station, and lasting, in the case of some of the siren blasts, ten times longer than the original sounds. These echoes were mostly noticed on shore at a little distance from the instruments, but they were also observed on board the "Irene," starting apparently from a point opposite to that from which the sound proceeded, and rapidly spreading out all over the horizon. The echoes were heard mostly on days when the sky was cloudless, the sea smooth, and the air tranquil; with disturbances in the atmosphere or sea surface the echoes were very short or not heard at all. Professor Tyndall attributed such echoes to reflections of the sound waves from invisible acoustic clouds in the atmosphere, such clouds being formed by air currents differently heated or differently saturated with vapour. When fog prevails, areas of different temperature or saturation are not so likely to exist, the atmosphere is more homogeneous and the passage of sound waves is not obstructed. In the committee's report a suggestion is made that the echoed sound might possibly, in some circumstances, be liable to be mistaken for the actual signal. This, of course, is not at all probable; but, if it should so happen, it would be most bewildering, as the echoed sound would appear to come from a direction opposite to that of the signal station.

Coming now to the instruments tried, the committee report that the siren has continued to hold its position as the most effective sound producer for fogsignal purposes under all the conditions of wind and weather experienced; that reed sounding instruments as at present developed are much inferior and only suitable for guarding positions of secondary importance. It is possible that, if there were no limits as regards power expended, volume and pressure of air employed, and size of reed and its

trumpet, a reed instrument might be brought up to an equality with the siren as now used, but this is taking no account of the possibility of further developing the capabilities of the siren in a similar manner. The new form of disc-siren rotated by a special motor appears to promise very well, its performance during the trials having been exceptionally good. A full description of the various instruments tested is given in the report. One point seems to have been brought into prominence in connection with the use of trumpets -namely, that the musical note produced by the speed of rotation of a siren or by the vibrations of a reed should, to get the best effect, be in unison with the fundamental note of the associated trumpet. A new form of trumpet with a mouth of elliptical section has been designed by Lord Rayleigh, and the trials made with it were so encouraging that the committee consider the principle may with advantage be further developed. A note by Lord Rayleigh giving the theoretical grounds on which he advocates this particular form of construction is embodied in the text of the report. Another form of trumpet introduced of late years by the Trinity House for lightships and positions where the sound is required to be distributed all round is that of the mushroom head. The round waves issuing from a vertical trumpet are intercepted a little above the aperture by an inverted cone with concave sides, the circumference at the top of the cone being larger than that of the aperture of the trumpet. By this so-called mushroom head the sound waves are deflected and caused to issue horizontally with equal force all round. The comparative trials made at St. Catherine's proved this form of trumpet to be quite as effective as had been anticipated.

The experiments appear to have been conducted with great care and completeness, and the results obtained cannot fail to be of great service in all future installations of coast fog-signals. The fact that no fewer than 4,600 observations were made, which have been classified and tabulated and their results shown in the appendix, is evidence that the investigation has been thoroughly carried out.

Some reference is made in the report to the possibility of employing electrical signals, ætheric or submarine, for conveying warnings to mariners in foggy weather. The question was considered by the committee, but it was thought that experimental trials of that nature were beyond the scope of the inquiry and the means at the committee's disposal, although they quite recognize that, if such a method could be brought into practical servite the great advantage atmospheric conditions and unforeseen influence of sound through the process of the inquiry and done, think the must be regarded a disposal, although they quite recognize that, if such a method could be brought into practical servite the great advantage atmospheric conditions and unforeseen influence that the committee, but it was thought by the committee, and done, think the must be regarded a disposal, although they quite recognize that, if such a method could be brought

into practical service, it would afford the great advantage of independence of atmospheric conditions. The variability of these conditions and their uncertain and unforeseen influence on the passage of sound through the air are dwelt upon by the committee, who, after all said and done, think that a sound fog-signal must be regarded as "only an auxiliary aid to navigation, which cannot at all times be relied on."

#### SUMMARY OF THE MEETINGS OF THE COMMITTEE.

THURSDAY, 9th January, 1902.

Captain the Hon. John M. Yorke, R.N., in the Chair.

Read and confirmed the minutes of the previous meeting.

Reported that His Majesty The King had graciously been pleased to become an annual subscriber of twenty guineas to the Institution.

Read the minutes of the Building, Finance and Correspondence, and Wreck and Reward Sub-Committees, and ordered that their recommendations be carried into effect.

Read the report of the Deputy Chief Inspector of Life-boats on his recent visit to

the Littlehaven station.

Also the reports of the District Inspectors of Life-boats on their visits to the following

stations:—
Northern District—Dunbar, Ballantrae,
Troon, Irvine, Ardrossan, Port Patrick, Port
Logan, Girvan, Ayr, Southend (Cantyre),
Campbeltown and North Berwick.

Eastern District—Saltburn, Redcar, Clacton-on-Sea, Walton-on-Naze and Harwich (two boats).

Southern District-Lyme Regis, Weymouth,

Swanage and Poole.

Western District—Angle, Ferryside, Burry Port, Portheawl, Cardigan, St. David's, Fishguard (two boats), Aberystwyth, Aberdovey, Barmouth, Holyhead (two boats), Porth Rhuffydd and Rhoscolyn.

Irish District—Portrush, Greencastle, Culdaff, Groomsport, Carrickfergus, Newcastle (Co. Down), Killough, Ballywalter, Cloughey

and Giles Quay.

Reported the receipt of a contribution of 21,4331. 4s. 11d. from the Central Committee of the Life-boat Saturday Fund as the nett proceeds of Life-boat Saturday, 1901.

Resolved that the most grateful thanks of the Committee of Management be conveyed to the Central Committee of the Life-boat Saturday Fund for their continued earnest and much valued services.

Reported the receipt from the Civil Service Life-boat Fund, per Charles Dibdin, Esq., the Honorary Secretary, of a further sum of 1,4511. 2s. 8d., to recoup the Institution all the expenses incurred in 1901 in maintaining the seven stations at which the seven Lifeboats presented and endowed by the Fund are

placed. The total sum thus contributed to the Institution by gentlemen in His Majesty's Civil Service since 1866 has been 27,5621. 8s. 9d.

Resolved that the sincere and best thanks of the Committee of Management be tendered to the Honorary Secretary, his Committee, and the Subscribers to the Fund.

Further resolved that the Institution's Decoration for special services other than the actual saving of life be conferred on Mr. Charles Dibdin, in recognition of his very long and valuable services to the Life-boat cause, as Honorary Secretary of the Fund, with which he had been connected for nearly 35 years.

Also the receipt of the following other special contributions since the last meeting:—

•	_	•	•
	£.	s.	d.
Thomas W. Blake, Esq	250	_	- '
James Geddes, Esq	200	_	_
Mrs. Samuel Lewis	100	_	_
Licensed Victuallers' Life-boat			
Fund, in aid of the support of			
the Hunstanton Life-boat, per			
A. L. Annett, Esq	50	_	-
Loyal Order of Ancient Shepherds			
(Ashton Unity) annual sub-			
scription	25	_	
The late Rt. Hon. Lord ROOK-			
WOOD	25	_	_
St. Michael's, Paddington, per			
the Rev. G. F. PRESCOTT, M.A.	10	4	_
-To be severally thanked.			
•			
Also the receipt of the following	legac	ies :	_
	£.	8.	d.
The late Mrs. MARY FLEMING, of			

Hemel-Hempstead, to provide a
Life - boat to be named the
Robert Fleming . . . 1,000 The late THOMAS EDWARD
KNOWLES, Esq., of Cheetham . 500 The late JOHN BENTLEY, Esq., of
Hanley, Staffordshire . . 100 The late Mrs. HANNAH M.
HODGSON, of Brighouse . . . 45 The late Mrs. Mary Curtis, of

Worthing (additional) . . . . 1 1 9
Reported the transmission to their stations
of the Banff, Clacton-on-Sea, and Minehead
new Life-boats.

Paid 6,687*l*. for sundry charges on various Life-boat establishments.

Voted 5531. 18s. to pay the expenses of the following Life-boat services:-Lives Life-boat. Vessel. Ketch Onward, of Mont-Bridlington . rose . Schooner Grace, of Sal-Broadstairs . combe. Stood by vessel. Buckhaven . Fishing-boats. Stood by boats. Falmouth Ketch Louise Ernst, of St. Malo Greencastle S.S. Neritea 12 Hartlepool No.2 Brigantine Florence, of 7 Newport Holy Island No. 1 Ketch Design, of Mont-6 Trosa Ren-Johnshaven . A fishing-boat. dered assistance. Kingsdowne . Four - masted barque Mersey, of Grimstad . Margate No. 1 Brigantine John Walters, of Exeter . Montrose No. 1 Sch. Gleaner, of Montrose. Stood by vessel.

Boat of tug Alexandra and ketch Village Belle, of Arbroath S. Christiania, S.S. οf Newbiggin . Haugesund 11 New Brighton Schooner (Steam Life-boat) Chester Lizzie, of. Chester North Berwick S.S. Porpoise, of Glasgow Penzance Brigantine St. Joseph. Rendered assistance. Schooner J. W. Waring, Rhoscolyn of Lancaster Trebiskin, Ketch of Padstow 4 Two cobles, Rend, assist, Scarborough . Three-masted schooner Satellite, of Dover 8 Seaton Carew S.S. Trefusis, of St. Ives 20 barque Walmer . Four-masted Mersey, of Grimstad . S. Wharfinger, of Wexford . Glasgow

The Padstow, Walmer and Wexford Lifeboats respectively assisted to save the s.s. Auguste Legembre, of Algiers, with thirty persons on board, the schooner Albion, of Poole,

and five lives, and the s.s. Wharfinger of Goole. Voted 8601. 7s. 4d. to pay the expenses of assemblies of crows, watching, launches,&c., at the following Life-boat stations with the view of assisting those on board vessels in distress: Arbroath, Arklow, Ballywalter, Bridlington Quay, Brixham, Caister No. 1, Dunbar, Dungeness No. 1, Eastbourne, Fishguard No. 2, Formby, Gorleston No. 1, Grimsby (Steam Life-boat), Hartlepool No. 2, Harwich (Steam Life-boat), Hayle, Hilbre Island, Holyhead (Steam Life-boat), Hoylake, Hunstanton, Irvine, Kirkoudbright, Mablethorpe, Mullion, New Brighton (Steam Life-boat), New Quay (Cornwall), North Deal, Penzance, Plymouth, Point of Ayr, Poole, Porth Rhuffydd, Redcar, Rhosneiger, St. Helier's, Saltburn, Scarborough, Southend-on-Sea, Sunderland North Dock, Upgang, Whitby Nos. 1 and 2, Whithorn, Winchelsea and Withernsea.

her services were not ultimately needed. Voted the Silver Medal of the Institution, accompanied by a copy of the vote inscribed on vellum, to Mr. HUGH HUGHES, coxswain, of the Rhoscolyn Life-boat, in recognition of his gallant services in that Life-boat, and particularly on the occasion of the rescue of the crew of the schooner, J. W. Waring, of Lancaster, in a whole gale and very heavy sea on the 8th December last. Double pay was awarded to the coxswain and crew of the Life-

The Ramsgate Life-boat was taken out, but

boat for this good service. The Committee specially recognized the valuable co-operation of Robert Lubs, Esq., Honorary Secretary of the Wicklow Branch,

on the occasion of the wreck of a vessel on the 13th November last.

Thanks were accorded to T. H. CORNISH, Esq., Honorary Secretary of the Penzance Branch, for his valuable services on the occasion of two launches of the Life-boat for service on the 1st January.

Voted 11. 5s. to five men for putting off in a boat and, at moderate risk, rescuing three fishermen, whose boat had been overtaken by a S.S.W. gale and a rough sea, on the 23rd December.

Also thanks and 10s. each to Mrs. S. A. DAVEY and Mrs. J. M. PYNE, whose husbands are coastguardmen, for assisting to save seven of the crew of the Flora, tender to H.M.S. Melampus, which stranded on the rocks in Kingstown harbour in a whole gale and heavy sea, on the 12th November.

Also 11. each to eleven fishermen who rendered most valuable assistance on the occasion of the Caister Life-boat accident on

the 13th November.

THURSDAY, 13th February, 1902.

Sir Edward Birkbeck, Bart., V.P., in the Chair.

Read and confirmed the minutes of the previous meeting.

Also read those of the Building, Finance and Correspondence and Wreck and Reward Sub-Committees, and ordered that their recommendations be carried into effect.

Also read the minutes of the last meeting of the Central Committee of the Life-boat Saturday Fund and ordered that their recommendations be carried into effect.

Read the report of the Chief Inspector of Life-boats on his recent visits to the south side of the Firth of Forth and Falmouth.

Also the report of the Deputy Chief Inspector of Life-boats on his visits to the Ilfracombe, Killough, Rhoscolyn, Rhosneigir, Greenore and Porth Rhuffydd Stations.

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

Northern District-Alnmouth, Eyemouth, Cambois, Blyth, Cullercoats, Newl Whithorn, Balcary and Kirkeudbright. Eastern District — Caister, Yarn Newbiggin,

Yarmouth, Grimsby, Donna Nook, Aldeburgh, Dunwich, Southwold (two boats), Lowestoff (two boats), Kessingland (two boats) and Pakefield.

Southern District—Bembridge, Southses Hayling, Brighton, Newhaven, Worthing Winchelsea and Littlehampton. Irish District—New Brighton (two boats)	,   V
Howlers Hiller Island Piel (Reprove	'
Hoylake, Hilbre Island, Piel (Barrow) Formby, Fleetwood and Greenore.	,
Reported the receipt of the following specia	1 1
contributions since the last meeting:	-
0	,   F
£. s. d	
"C. M. B." 50 -	-   S
"M. L. M." 50 - R. A. Oswald, Junr., Esq 25 -	-   _
R. A. Oswald, Junr., Esq 25 - Worshipful Company of Armourers	T
and Brasiers (additional) 10 10 Proceeds of entertainment at	-
Charfield National School per the Rev. Robert P. Davies,	V
M.A 10 10 Collected on board the R.M.S.	-   V
Tintagel Castle by Sergeant	1
Pickering, of the 118th Com-	F
pany of Imperial Yeomanry, per	b
Captain Whitehead 5 -	-   I
-To be severally thanked.	8
-10 de severang mannea,	(
A3 43	1
Also the receipt of the following legacies:-	- s
£. s. d	l.   fe
The late Miss M. W. DITCHETT, of	- }
Clifton 500 -	- l o
The late C. J. Posno, Esq., of	. c
Finsbury Circus	_   d
Finsbury Circus 250 - The late James Brown, Esq., of	C
Stratford 100 -	_   0
The late Mrs. A. S. STOCK, of	- LE
Weston-super-Mare (additional) 42 14	9   8
The late Richard Wain, Esq., of	V
Clifford Street, Bond Street . 30 7	9 a
77 2 2 13 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	İ
Voted the thanks of the Committee to Mr	
J. H. HAMILTON, Mr. W. MELLOWS, the lat	e t
Captain J. A. KISSACK, Mr. HERBERT S. WILKS Mr. JOHN EDASER and Mr. JOHN B.	. V
WITER NET LOUNT ROLEGED and ME LOUNT R	: 15

Voted the thanks of the Committee to Mr. J. H. HAMILTON, Mr. W. MELLOWS, the late Captain J. A. KISSACK, Mr. HERBERT S. WILKS, Mr. JOHN FRASER, and Mr. JOHN R. DAVIS, in recognition of their valuable cooperation as Honorary Secretaries respectively of the Runcorn, Peterborough, Port St. Mary, Hythe, Nairn and Minehead Branches of the Institution, which offices they had just resigned.

Paid 6,1211. for sundry charges on various

Life-boat establishments.

Voted 3701. 12s. 6d. to pay the expenses of the following services:—

_		Liv
Life-boat.	Vessel.	sav
Coverack	Barque Glenbervie, Glasgow	of
Cullercoats .	Eight cobles. Render	ed
Falmouth .	Schooner Snaefell,	of b <b>v</b>
Flamborough	vessel. Barquentine Aurora,	•
T. Tamporough	Guernsey	•
Gorleston No. 1	Brigantine Volant, Limerick. Stood	
Hayle	vessel. S.S. Fleswick, of White	
•	haven	
Johnshaven	Schooner Lord Clue	₹e.

of Banff

		Lives
Life-boat.	Vessel.	saved.
Moelfre	Barquentine Ethiopia,	_
	of Wicklow	6
,,	Schooner Lily Green, of	_
	Liverpool	3
Poole	Ketch Jessie, of Boston.	
	Stood by vessel.	
Ramsey	Schooner Ellesmere, of	
•	Runcorn	3
St. Mary's .	Ketch Ada, of Gloucester.	
	Stood by vessel.	
Thurso	Schooners Emma Louise	
•	and Elizabeth Miller,	
	of Wick. Landed 7	
	men.	
Wexford	S.S. Belle.	
mozioia	Stood by vessel.	
Whith No 1		
Whitby No. 1.	Two contest Landed o.	
The Cleator	on-See Flemborough N	0 9

The Clacton-on-Sea, Flamborough No. 2, Ramsgate, and Winterton Nos. 1 and 2 Lifeboats respectively assisted to save the s.s. Dungonnell, of Clasgow, and eleven lives; assisted to save the barquentine Aurora, of Guernsey; rescued one man from the smack Lottie, of Ramsgate; assisted to save the steam-trawler Teal, of London, and saved fourteen men from the barque Chili, of Gefle.

Voted also 6201. 19s. in payment for launches of the Life-boats, or for assemblies of the crews with the view of assisting vessels in distress at Brixham, Broughty Ferry, Caister, Carrickfergus, Clacton, Eastbourne, Falmouth, Gorleston, Great Yarmouth, Hythe, Margate, Padstow, Palling, Porthoustock, Runswick, St. Mary's, St. Peter's Port, Southend (Essex), Walton-on-the-Naze, Watchet, Weymouth and Winterton.

Read a letter received from the President and Council of the French Shipwreck Society tendering their sympathy to the Institution with regard to the loss of life resulting from the Caister Life-boat disaster on the 14th December last. The communication was gratefully acknowledged.

The Committee specially recognised the services of Messrs. Charles T. Hipkin, A. D. Scott, William J. Roy and Frank Halls on the occasion of the Life-boat at Walton-on-the-Naze being called out for service on the night of the 6th January.

The sum of 14l. 1s. was granted to men injured while engaged in the Life-boat service at Bridlington Kinggdown and Bhoselyn

at Bridlington, Kingsdowne and Rhoscolyn.

Voted 14l. to fourteen men for putting off in a boat and endeavouring to save life on the occasion of the loss of the Italian barque Lofaro which capsized and sunk, with the loss of her crew, near St. Martin's Head, Isles of Scilly, in a strong E.N.E. gale and a very heavy sea, on the 2nd February. Ten shillings each was also granted to two of the men who were injured by falling on the rocks.

Also 11. 10s. to three men for putting off in a boat and rescuing two men from a barge which had stranded in Bannow Bay, Co. Wexford, in a strong S.W. gale and a very rough sea, on the 23rd December. 7s. 6d. was also awarded to 'two persons who assisted to launch the boat.

#### WEDNESDAY, 12th March, 1902.

The Annual General Meeting of the Governors and friends of the ROYAL NATIONAL LIFE-BOAT INSTITUTION took place this day at the Royal United Service Institution, Whitehall, the Right Hon. the EARL OF SELBORNE, P.C., First Lord of the Admiralty, in the Chair.

The Chairman having made some suitable observations on the great and national character of the operations of the Institution, the Annual Report (which will be found in the May number of The Life-boat Journal) was

presented to the meeting.

The meeting was also addressed by Sir EDWARD BIRRBECK, Bart., V.P.; the Right Hon. Lord Suffield, G.C.V.O., K.C.B.; Sir Francis J. S. Hopwood, K.C.B., C.M.G., Secretary to the Board of Trade; the Right Hon, the EARL OF HARDWICKE, Under-Secretary of State for India; Sir John C. R. COLOMB, K.C.M.G., M.P.; Capt. the Hon. John M. Yorke, R.N.; and Sir Robert U. PENROSE-FITZGERALD, Bart., M.P.

The officers for the current year were chosen, and various resolutions moved, seconded and carried unanimously, pledging the meeting to renewed exertions on behalf of the benevolent and national objects of the Institution, and expressing the fullest confidence in the

management.

The officers' names and the resolutions will be found in the May number of The Life-boat Journal.

#### THURSDAY, 13th March, 1902.

Sir Edward Birkbeck, Bart., V.P., was unanimously elected Chairman, and Colonel FITZROY CLAYTON, V.P., Deputy Chairman of the Committee of Management of the Institution for the ensuing year.

Sir Edward Birkbeck, Bart., V.P., having taken the Chair, the members of the Sub-Committees were elected for the current year. Also the delegates to the Central Committee of the Life-boat Saturday Fund.

Read and confirmed the Minutes of the

previous meeting.

Also read those of the Building, Finance and Correspondence, and Wreck and Reward Sub-Committees, and ordered that their re-

commendations be carried into effect.

Read the report of the Chief Inspector of Life-boats on his recent visit to the Eastbourne

Life-boat station.

Also the report of the Deputy Chief Inspector of Life-boats on his visits to Sunderland and Ramsgate.

Also the reports of the District Inspectors of Life-boats on their recent visits to the following Life-boat stations:-

Northern District-Workington, White-

haven, Maryport, St. Andrews and Crail. Eastern District—Gorleston (three boats), Seaham and Sunderland (two boats).

Southern District — Porthleven, Lizard, Coverack, Porthoustock, Cadgwith, Mullion, Lizard, Mevagissey, Falmouth, Fowey and Plymouth.
Western District — Weston - super - Mare,
Watchet, Minehead, Burnham, Bude, Pad-

stow (two boats), Newquay (Cornwall) and Port Isaac.

District — Blackrock, Drogheda, Finostown (two boats), Irish Skerries, Howth, Kingstown (two boats), Aranmore, Arklow, Courtown, Cahore, Wexford and Rosslare Harbour.

Reported the receipt of the following special

	contributions since the last meeting:—			101
		£.	s.	d.
	F. Wadsworth, Esq	25		_
	Collected on board H.M.S. Canopus on Sunday, 8th December, 1901, per the Rev. F. S. HORAN, R.N. Proceeds of entertainment given by the Wesleyan Choir at East	4	_	_
	Peckham, Tonbridge, per Mr. F. Hilder.	3	5	6
	—To be severally thanked.			
į	Also the receipt of the following legacies:—			
		£.	8.	d.
	mi 1 ( 35 ) Tiller Tiller (Co.)			
	The late Mrs. EMMA ELIZA Cox, of Weston-Super-Mare, for a William and Emma Life-boat, to be placed on the coast of			
	of Weston-Super-Mare, for a William and Emma Life-boat, to be placed on the coast of	1,000	_	_
	of Weston-Super-Mare, for a William and Emma Life-boat, to be placed on the coast of Great Britain	1,000	-	_
	of Weston-Super-Mare, for a William and Emma Life-boat, to be placed on the coast of Great Britain.  The late M. C. SMART, Esq., of Tewkesbury, for a Michael Smart Life-boat.	1,000 900	_	-
	of Weston-Super-Mare, for a William and Emma Life-boat, to be placed on the coast of Great Britain		- - 19	- -

of Spalding The late JOHN GLOVER, Esq., of Croydon

The late Mrs. ELIZA WALKE, of Plymouth, per Plymouth Branch 161 13 5

The best thanks of the Committee were conveyed to Mr. G. HARRINGTON QUAYLE, in recognition of his long and valuable services whilst serving as Honorary Secretary of the Castletown Branch of the Institution, which office he had just resigned.

The Committee voted the Institution's Decoration for special services other than the saving of life to the following Honorary Secretaries of Branches of the Institution, in recognition of their zealous and very valuable services for twenty years and upwards: Mr. PATRICK MURRAY, Isle of Arran; Mr. W. P. ADSHEAD, Belper; Mr. GILBERT HOULDEN, Donna Nook; Mr. PIERCE CROSSIE, Greencastle; Mr. J. M. MEER, Redcar; Mr. E. J. BLUETT, J.P., Scilly Islands; Mr. C. F. Grantham, Skegness; and Mr. W. PEREGRINE PROPERT, LL.D., St. David's.

The Committee also precially recomined.

The Committee also specially recognised the good services, extending over many years, of the following Honorary Secretaries of Branches of the Institution:—Lieutenant J. O. WILLIAMS, R.N., Aldeburgh; Mr. R. GRAHAM LINDSAY, Belfast and Groomsport; the Rev. R. LESLIE MORRIS, M.A., Brooke; Mr. R. M. Fleming, J.P., Culdaff; Mr. R. J. LEESON, Cullercoats; Mr. ERNEST CROSBY, Fleetwood; the Rev. H. D. BARRETT, B.A., Hunstanton; Captain A. Coull, Lossiemouth; Mr. J. IREDALE, L.R.C.P., Mablethorpe; Mr. WILLIAM JONES, Rhosneigir; Mr. THOMAS

Bradley, St. Annes-on-Sea; Mr. B. Singlair MacDonald, Thurso; Mr. John N. Taylor, West Hartlepool; Mr. C. A. MYEBS, Lytham; Mr. Alfred Adam, J.P., Keighley; and the late Colonel H. W. ISACKE, R.A., Kingsgate.

Reported the transmission to their stations of the Bembridge and Scarborough new Life-

Paid 4,660l. for sundry charges on various Life-boat establishments.

Voted 1101. 17s. to pay for the following Life-boat services :-

Lives Life-boat Vessel. Aldeburgh Barque Loveid, of Porsgrund. Landed 10 from a steamer. Landed 2 persons sur-rounded by the tide. Hoylake . Montrose No. 1 Fishing - boat Marjory Brown, of Montrose Staithes . Fishing-cobles. Stood by boats. Winchelsea . Ketch Pilot, of Plymouth. Saved vessel and .

The Cresswell, Hauxley, Montrose No. 1 and North Deal Life-boats respectively rendered assistance to the s.s. Minerva, of Sunderland; assisted to save the s.s. Velocity, of London; saved the fishing-boat Marjory Brown, of Montrose; and assisted to save the

s.s. Rion, of Newcastle.
Also 184l. 15s. 11d. to pay the expenses of launches of Life-boats, &c., at the following stations, with the view of assisting vessels in distress: - Alnmouth, Broadstairs, Caister No. 1, Cullercoats, Harwich (Steam Life-boat), Hauxley, Kingsdowne, Montrose No. Palling and Port Erroll.

The Ramsgate Life-boat was called out on three occasions, but her services were not

required.
Voted 71. to men injured while on Life-boat

service at Ballywalter and Caister.

Also 11. to the crew of the ketch Devon, of Barnstaple, for rescuing the crew of three men from the schooner Annie, of Padstow, which sunk off the entrance of the Ely River, near Penarth Dock, in a N.E. gale and heavy sea on the 1st February.

Also an Aneroid Barometer to Mr. ALEX-ANDER McPherson, skipper, and 11. each to his crew of seven men, for putting off in his boat from Whinnyfold, Scotland, and saving six of the crew of the s.s. Hartfell, of Aberdeen, which struck on the Cruden Scaurs and sunk very soon afterwards, in a dense fog, a light S.S.E. breeze and a ground swell on the 1st March.

Monday, 24th March, 1902.

Sir Edward Birkbeck, Bart., V.P., in the Chair.

A Special Meeting of the General Committee was held this day, when various matters were considered in connection with the standing Sub-Committees of the Institution.

THURSDAY, 10th April, 1902.

Sir EDWARD BIBEBECK, Bart., V.P., in the Chair.

Read and confirmed the minutes of the previous meeting.

The Meeting learned with great satisfaction that Her Royal Highness the Princess or WALES had graciously consented to become a Vice-Patron of the Institution.

Read the minutes of the Annual Meeting; also minutes of the Building, Finance and Correspondence, and Wreck and Reward Sub-Committees, and ordered that their recommendations be carried into effect.

Read the reports of the District Inspectors of Life-boats on their recent visits to the following Stations:-

Northern District-Tynemouth (two boats),

Hauxley, Cresswell, North Sunderland, Holy Island (two boats), Broughty Ferry and Arbroath. Eastern District — Seaton Carew, West Hartlepool, Hartlepool (three boats), Folke-

stone, Hythe, New Romney, Dungeness (two boats), Dover, Kingsdowne, Walmer, North Deal, Ramsgate and Broadstairs.

Southern District-Hastings, Eastbourne, Totland Bay, Ryde, St. Helier's, St. Peter's Port, Southsea and Selsey.

Western District—St. Agnes, St. Mary's, Penzance, St. Ives, Hayle, Sennen, Ilfracombe, Clovelly, Appledore (two boats), Lynmouth, Tenby, Ferryside, Burry Port, Port Eynon, Swansea, Portheawl and Barry Dock.

Irish District—Kilmore, Dunmore East, Dungarvan Bay, Tramore, Fethard, Youghal, Ballycotton, Queenstown, Courtmacsherry and Fenit (Tralee Bay).

Reported the receipt of the following special

contributions since the last meeting: Ancient Order of Foresters, final payment cost towards of Forester Life-boat at Tynemouth Collected on board the s.s. Anversville, by Captain Flemyng, per Messrs. Elder, Dempster & Co., Liverpool 20 14 2 Collected on board the s.s. Albertville, by Captain Sparrow, per Messrs. Elder, Dempster & 9 14 10 Co., Liverpool The Friendly Brothers of St. Patrick, per EDWARD NASH, 10 10 -Collections in Adderley Church, Market Drayton, per the Rev. C. J. Winser, M.A. . . . .

Also the receipt of the following legacies:— The late James Finlayson, Esq., £. s. d. of Stirling, for establishing and maintaining a Life-boat for the 2,500 coast of Scotland.

-To be severally thanked.

The late Miss EMILY JONES, of Chester Place . 750 The late Miss ELIZABETH DAVIES, 400 of Upper Gloucester Place.

The late Mrs. ELIZABETH GARRARD, 86 17 of West Norwood

The late Mrs. ELIZABETH JAMESON. of Whitby, per Whitby Branch The late Mrs. Agnes Warson MARTIN, of Stirling .

£. s. d.

Deep regret was expressed at the death of Colonel H. W. ISACKE, R.A., who had been the Honorary Secretary of the Kingsgate Branch of the Institution for eleven years, and it was decided to send a letter of condolence to his widow.

Reported the transmission to its station of

the Hauxley new Life-boat.

Paid 5,710l. for sundry charges on various

Life-boat Establishments.

Voted 881. 13s. 8d., to pay the expenses of the following Life-boat services:-

Lives Life-boat. Vessel. saved. Schooner John Ewing, Cardigan . . of Carnarvon Smack Young Helen, of Dunbar .

Buckhaven. Stood by vessel.

A fishing boat. Stood Exmouth . by vessel. H.M.S. Opossum. Ren-Holyhead

(Steam Life-boat) dered assistance. Peterhead Schooner Pioneer, Assisted to Dundee. save vessel.

The Clacton, Holyhead (Steam Life-boat), Margate No. 2, and Ramsgate Life-boats, respectively, saved the ketch Carina, of Brixham; rendered assistance to the schooner Gipsy Maid; saved the ketch Justice, of Harwich, and 3 lives; and assisted to save the schooner Morwenna, of Truro.

Voted 1821. 5s. 2d. to pay for watching or and a moderate sea on the 4th April.

launches of Life-boats at the following stations, with the view of assisting distressed vessels: Broadstairs, Caister No. 1, Court-macsherry, Dunbar, Gorleston No. 1, White-link Bay, Winchelsea and Winterton No. 2.

Read letter from the Board of Trade, transmitting medals for saving life, third class, awarded by H.M. THE KING OF NORWAY AND SWEDEN to Mr. John William Bushell, coxswain, and Mr. George Summerside, acting bowman, and 11. for each of the remainder of the crew of the Cambois Lifeboat, in recognition of their services in rescuing seven men from the barque Haabet, of Svelvik, on the 12th November last.

The thanks of the Institution, inscribed on vellum and framed, were awarded to Mr. James Laming, coxswain of the Kingsdowne Life-boat, and to Mr. JOHN MACKINS, coxswain of the Walmer Life-boat, in recognition of their good services on the occasion of the rescue of the crew of the four-masted barque

Mersey, of Grimstad, in a S.S.W. gale and a

very heavy sea on the 28th December.

Voted also the thanks of the Institution, inscribed on vellum and framed, to the Misses ROSIE M. BIRNIE and MARY J. BIRNIE, daughters of the keeper of the Kyleakin Lighthouse, Isle of Skye, and a present of 5s. to their brother, Master Robert W. Birnie, for putting off in a boat and rescuing two men, whose boat had been capsized midway between the Kyle Rock and the Lighthouse, in a moderate breeze with slight squalls, a moderate sea and thick weather on the 18th March.

Also 15s. to three men for rescuing one of the crew who, by the jibing of the mizen sheet, had been knocked overboard from the fishing lugger Welcome Home, of Kessingland, when off Lowestoft, in a strong N.W. breeze

#### "ONE MORE FOR THE LIFE-BOAT CREW."\*

"THE lads are afloat, they have launched the boat

Where the moaning storm-birds flew; Oh, wife, from the shores they cry, 'One more,

With strong, steady hand, and true!' There are lives to save On the frothing wave-

'One more for the Life-boat crew!'

"Nay, shiver not so that I seaward go, Nor shrink from the night's black hue; There is danger far where our brethren are, And the moments left grow few.

There are lives to save From a yawning grave—
'One more for the Life-boat crew!'

"A kiss for the ways of our courtship days, A kiss for love's Eden-view,

When the white cliffs woke as the joybells broke. And home held a glory new.

Heaven's help I crave! There are lives to save—
'One more for the Life-boat crew!'

"This kiss, my sweet, till again we meet, And another I leave with you

For the babe at rest on your brave, brave breast-

God keep my little lad true. And strengthen his soul When the deep waves roll A call for the Life-boat crew!"

\* From The Quiver.

#### NOTICE.

The next number of the Life-boat Journal will be published on the 1st November.

### ROYAL NATIONAL LIFE-BOAT INSTITUTION.

SUPPORTED SOLELY BY VOLUNTARY CONTRIBUTIONS.

Patron—His Most Gracious Majesty the King. President—His ROYAL HIGHNESS THE PRINCE OF WALES, K.G.

Chairman-SIR EDWARD BIRKBECK, BART., V.P.

Benuty-Chairman-Colonel FITZRCY CLAYTON, V.P.

Secretary - CHARLES DIBDIN, ESQ., F.R.G.S.

Telegraphic Address:

"LIFE-BOAT
INSTITUTION
LONDON."



Telephone:
No.: 2964
i(";GERRARD
EXCHANGE.")

#### APPEAL.

THE COMMITTEE OF MANAGEMENT have to state that during the past year (1901) the ROYAL NATIONAL LIFE-BOAT INSTITUTION expended £93,390 on its Life-boat Establishments.

GENERAL SUMMARY OF THE WORK OF THE INSTITUTION DURING 1901.

Number of Lives rescued by Life-boats, in addition to 15	£. s.	d.
Vessels saved by them and 76 persons landed from		
vessels in distress and lightships	•••	
Number of Lives saved by Shore-boats, &c	•••	
Amount of Rewards granted during the Year	11,911 1	3
Honorary Rewards:—Gold Medals	***	
Silver Medals 4		
Decorations	***	
Binocular Glasses 16	***	
Aneroid Barometers 6	***	
Votes of Thanks on Vellum 18	***	
Certificates of Service 11	•••	
Total 104 490	£11,911 1	3

The number of Lives saved either by the Life-boats of the Society, or by special exertions for which it has granted rewards since its formation, is 43,388. The rewards and recognitions granted by the Institution in the same period comprise 99 Gold Medals and Clasps, 1,199 Silver Medals and Clasps, 57 Decorations, 336 Binocular Glasses, 15 Telescopes, 41 Aneroid Barometers, 1,704 Votes of Thanks, inscribed on vellum and framed, 144 Certificates of Service framed, and £226,981 in money.

The Committee earnestly appeal to the British Public for Funds to enable them to maintain their 288 Life-boats now on the Coast and their Crews in the most perfect state of efficiency. This can only be effected by a large and permanent annual income. The Annual Subscriptions, Donations and Dividends are quite inadequate for the purpose. The Committee are confident that in their endeavour to provide the brave Life-boatmen, who nobly hazard their lives in order that they may save others, with the best possible means for carrying on their great work, they will meet with the entire approval of the people of this the greatest maritime country in the world, and that their appeal will not be made in vain, so that the scope and efficiency of our great Life-saving Service, of which the Nation has always been so proud, may not have to be curtailed.

Annual Subscriptions and Donations are earnestly solicited, and will be thankfully received by the Secretary, Charles Dibdin, Esq., at the Institution, 14, John Street, Adelphi, London; by the Bankers of the Institution, Messrs. Coutts and Co., 59, Strand; and by all the other Bankers in the United Kingdom.—1st August, 1902.