

1910

SHIPPING CASUALTIES

610

(LOSS OF THE STEAMSHIP "THISTLEMOR.")

REPORT of a Formal Investigation into the circumstances attending the loss of the British Steamship "Thistlemor" of Sunderland, in or near Barnstaple Bay, on the 3rd December, 1909.

Presented to both Houses of Parliament by Command of His Majesty.



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"THISTLEMOR" (S.S.).

The Merchant Shipping Act, 1894.

In the matter of a Formal Investigation held at the Town Hall, Bideford, on the 3rd, 4th, 5th, 6th, and 11th days of May, 1910, before Col. WILSON HOARE, JOSEPH CHARLES THOMAS HERIZ SMITH, and JAMES PATON, Esquires, assisted by Vice-Admiral WILLIAM MARRACK, Captains W. H. SINCLAIR LOUTIT, and HENRY E. BATT, into the circumstances attending the loss of the British steamship "THISTLEMOR," of Sunderland, in or near Barnstaple Bay, Bristol Channel, on the 3rd day of December, 1909, whereby loss of life ensued.

Report of Court.

The Court having carefully inquired into the circumstances attending the above-mentioned shipping casualty, finds for the reasons stated in the Annex hereto, that the loss of the "Thistle-mor" was caused by her encountering a violent S.W. gale, in the Bristol Channel, during the night and early morning of the 2nd/3rd December last, in the course of which heavy seas broke over her fore-castle and well deck, tearing from their fastenings the ventilators and sockets. Through the openings thus made in the deck, large quantities of water penetrated into No. 1 hold, bringing the vessel so much down by the head that she became unmanageable. Other seas were shipped down the fidley gratings and engine-room ventilators, which soon after led to the vessel foundering with her master and 20 of her crew.

The Court is of opinion that the large loss of life attending this casualty would not have occurred had prompt steps been taken to call out the Clovelly lifeboat, in answer to the distress signals which had been shown from the vessel, and observed at Peppercombe at 4 a.m.

Dated this 13th day of May, 1910.

WILSON HOARE,
JOSEPH C. T. HERIZ SMITH, } Judges.
JAMES PATON,

We concur in the above Report.

W. MARRACK,
Vice-Admiral, } Assessors.
W. H. SINCLAIR LOUTIT,
H. E. BATT,

Annex to the Report.

This Inquiry was held in the Town Hall, Bideford, in the County of Devon, on the 3rd, 4th, 5th, 6th, and 11th days of May, 1910. Mr. Abel Thomas, K.C., M.P., with Mr. A. D. Bateson (instructed by Messrs. R. Ellis Cunliffe and George Vaux), represented the Board of Trade, Captain Grant Dalton, R.N., who was made a party to the Inquiry, represented the Admiralty, and Mr. W. T. Charlewood at his own request was also made a party to the Inquiry as representing the Coast Watching Association.

The "Thistle-mor," Official Number 119230, was a British steamship, built of steel at Stockton-on-Tees in 1906, by Craig, Taylor & Co., Limited, and was registered at the Port of Sunderland.

She was fore and aft schooner-rigged and of the following dimensions. Length 350 feet, main breadth to outside of plank 51 feet, and depth in hold from tonnage deck to ceiling at 'midships 25.5 feet. Her gross tonnage being 4,007.96 tons and her registered tonnage 2,578.51 tons. She was propelled by three tri-compound direct acting inverted cylinder engines of 316 nominal horse-power, and 1,440 indicated horse-power designed to give her a speed of 9½ knots per hour, and was fitted with two steel boilers having a working pressure of 180 lbs. to the square

inch, both machinery and boilers being constructed by John Dickinson & Sons, Limited, in 1906.

She was owned by the Albyn Line, Limited, Walter Beattie Allan and William Black, of 48, West Sunnyside, Sunderland, being the persons to whom the management of the vessel is entrusted by and on behalf of the owners. Advice under the seal of the Albyn Line, Limited, received 27th June, 1906.

The vessel was built to Lloyd's 100 A1 class, and according to the plans produced her construction and internal arrangements were as follows:—

She had a raised bridge deck extending for nearly two-thirds of her length, on which the officers and engineers were berthed. A poop and a fore-castle where the crew were berthed, the forewell deck between the bridge and fore-castle, and the afterwell deck between the after end of the bridge deck and the poop, had solid bulwarks 3 feet 9 inches high pierced with six freeing ports, three on each side, having an area of 12½ feet; on these decks were placed the following ventilators, each fitted with sockets, rivetted to the decks and cowl heads. One under the break of the fore-castle, one at the fore end of the bridge deck, both leading into the fore hold, one through the fore end of the bridge deck leading into the main hold, one on the bridge deck by the corner of the engine-room skylight leading to the engine-room, two on the bridge deck abaft the engine-room leading into the bridge 'tween decks, one on the afterwell deck leading into the after hold, and two on the poop leading into the after hold. As will be hereafter detailed, it was owing to the above-named ventilator shaft and socket being washed away on the forewell deck that led to the vessel foundering.

The vessel had six water-tight steel bulkheads, all carried to the upper deck, viz., the collision bulkhead forward, one between the fore and main holds, one between the main hold and stokehold, one between the stokehold and after main hold, one between the after main hold and after hold, one between the after hold and the lazarette, the lower part of which forms the after tank. The bridge deck at the fore end was protected by a steel bulkhead from side to side and there was a similar bulkhead at the after end. The engine-room skylight was of iron with bull's-eye lights, and measured 14 feet by 10 feet, and the fidley gratings had iron plate covers secured by hinges and clips. There were six hatchways with iron coamings and plate beams extending across the hatchway with wooden fore and afters to each hatchway supporting wooden covers—over which were tarpaulins secured with iron battens, cleats, and wedges.

The "Thistle-mor" had two lifeboats, each measuring 24 feet by 6 feet by 3 feet, one on each side of the bridge under davits, and two smaller ones, a dinghy and gig; they were fitted with the necessary equipments and were in good order. She had 36 lifebelts, 6 lifebuoys, and a sufficient number of socket signals, rockets, and blue lights, as detailed hereafter.

In November, 1909, the vessel was put in dry dock at Birkenhead, and thoroughly overhauled as to her machinery and hull, by two of Lloyd's surveyors, and by the owners' superintending engineer; various repairs were effected and she appears to have left the port at the close of that month in a thoroughly seaworthy condition.

The vessel was fitted with the following pumps (which were in good order and adequate for all purposes):—One ballast donkey pump, two bilge pumps with 3½-inch suction pipe, and the bilge injection; the donkey pump and bilge pumps could be put on to any of the holds as occasion demanded.

With regard to the quantity of coal carried by the vessel on previous voyages, a list was supplied by the owners which indicated that on one occasion she had carried more dead weight in the holds on a winter voyage than on the voyage in question (viz., 7,110 tons), thus showing that she was not then overloaded. She had a cellular bottom, and carried 1,144 tons of water ballast in eight tanks.

The s.s. "Thistle-mor" left the Alexandra Dock, Cardiff, with Mr. Richards as pilot, at 9 a.m. on 2nd December last. Her cargo consisted of 4,575 tons 15 cwt. of coals, stowed as follows:—In No. 1 hold, 1,285 tons 5 cwt.; No. 2 hold, 2,055 tons 2 cwt.; No. 3 hold, 1,175 tons 8 cwt.; in addition, she had 2,394 tons of bunker coals, 262 tons of which was taken in at Cardiff; there was also an estimated weight of 50 tons of stores and fresh water on board, making a total weight of cargo, bunkers, stores, and water of 6,959 tons 15 cwt. The draught of water taken in the dock basin immediately before she sailed was 24 feet 2 inches forward, and 23 feet 8 inches aft, a mean of 23 feet 11 in. Allowing for the increased

density of sea water, the mean draught at sea would be 23 feet 8½ inches. The centre of the disc was placed 4 feet 3½ inches below the upper deck line, the load line in winter being 5½ inches below the centre of disc. The ship's winter draught giving a dead weight capacity of 6,970 tons at a mean draught of 23 feet 8 inches to 23 feet 8½ inches, and a freeboard of 4 feet 9 inches.

The pilot left the ship off Breaksea Lightship about 10 a.m., and she then proceeded down the Channel at full speed making about 9 knots per hour. The weather at this time became threatening, with some rain and mist and an increasing south-westerly wind. During the course of the day the wind freshened very considerably, and towards evening was blowing a south-westerly gale.

At 11 p.m. a very fierce W.S.W. gale was blowing with rain and a heavy sea running. The engines had been gradually eased down to between 40 and 45 revolutions from about 58 revolutions, for the purpose of easing the ship. About 10 p.m. the bogey funnel socket was washed away from the fore-castle deck, a considerable quantity of water found its way through the hole in the deck into the fore-castle. The hole was, however, soon covered, and no trouble resulted from this other than wetting the effects of the crew and those of the crew at the time in the fore-castle.

Shortly before midnight a heavy sea broke on board forward, breaking adrift some barrels of oil lashed on the fore end of the bridge deck, and when these barrels were being secured it was noticed that a 16-inch ventilator on the after part of the forewell deck had been washed away, the socket being torn flush to the deck. The well deck at this time being constantly flooded, water was pouring into the fore hold through the aperture caused by the loss of this ventilator flange. Attempts were made to plug up the aperture, first by a 16-inch ventilator plug which proved too small (the aperture being larger than the plug), then by a bag of cotton waste, some separation cloths, and by a settee cushion rolled up, all of which washed out directly they were put in place. No further efforts appear to have been made to close the aperture, and probably none could have been made, as the well deck was constantly being flooded by heavy seas. About midnight the ship was turned round and headed up channel for the purpose of getting under the lee of Lundy, so that the hole in the deck could be securely covered and the water pumped out. At the same time the master gave instructions to the chief engineer to put the pumps on the fore hold, which was at once done. After the ship was turned to the eastward, heavy seas continued to flood the forewell deck; the water poured into the fore hold through the broken ventilator aperture in much larger quantities than the pumps could deal with successfully, causing the ship to go down by the head.

As the ship settled down by the head difficulty in steering her was experienced, especially during the squalls; she sometimes had the wind on one broadside and sometimes on the other. A little after 1 a.m. on 3rd December a sea struck the port lifeboat and a ventilator leading into the engine-room situated on the bridge deck; the lifeboat was unshipped from her chocks and landed on the steering rod. When some of the crew mustered to replace the boat (which was done), the ventilator was found to be broken off at the deck. Attempts were made to close the hole made by the breaking of this ventilator flange—first with a bag of cotton waste, which washed out in a few minutes, and by separation cloths, which also proved useless. No other attempt at plugging this hole appears to have been made. Through this hole a considerable quantity of water found its way into the engine-room, and from thence to the stoke hole; it was, however, much less in amount than that pouring into the aperture of the ventilator on the well deck, the latter deck being constantly full of water, whereas the bridge deck, on which the engine-room ventilator was placed, was less frequently flooded. It may be here mentioned that a third ventilator was washed away whilst the boat was being lowered by the crew for the purpose of getting to the "Arndale." This ventilator was placed on the fore end of the bridge deck, and communicated with the main hold. Water in considerable quantities must have found its way into the main hold in consequence, and somewhat hastened the end. No attempt was made or could be made to plug this hole; indeed, at this time the crew were busily occupied in their efforts to leave the ship. At this point it may be convenient to give details as to the construction of the ventilators, and for the Court to express an opinion on them.

The ventilators each consisted of two parts, the flange and the cowl. The flange was of 16 inches diameter,

3 feet in length (of steel), $\frac{3}{8}$ of an inch thick, fastened to the steel deck by steel "angle iron" rings, each angle being 3 inches in width and $\frac{7}{16}$ inch thick. The rivets in the angle iron rings which fastened the sockets to the deck were 4 inches apart. The deck was of steel and $\frac{7}{16}$ of an inch thick. The cowls were detachable of the same diameter as the sockets, some being 4 feet 6 inches long, and others 2 feet 6 inches, and of somewhat lighter material than the sockets. The height of the ventilators from the deck when the cowls were shipped was therefore 7 feet 6 inches and 5 feet 6 inches respectively. Wooden plugs were provided for the purpose of plugging the top of the flange when the cowls were unshipped.

The structural strength of these ventilators just fulfilled the minimum of Lloyd's requirements.

Three of these ventilators were washed away during the gale this ship encountered. One on the forewell deck, and two on the bridge deck, and the loss of the ship with the consequent lamentable sacrifice of life was undoubtedly due to their weakness and washing away. Had the decks been of wood the openings made might have been covered by nailing wood over them, but being of steel this of course was impracticable. The ventilator washed away from the forewell deck, appears not to have been subject to a more severe stress than would usually occur during a severe gale and the consequent heavy seas striking it. If the cowl had been unshipped the stress would have been less. Seeing that the "Thistle-mor" was only three years old, it is highly improbable that the ventilators or their fastenings had been weakened by corrosion. It may be remarked here that the "Arndale" had a ventilator washed away in this gale; there was, however, no evidence given to the Court as to its size, construction, or position, other than it was on the fore-castle deck.

The Court is of opinion that the "Thistle-mor's" ventilators were not strong enough.

To revert to the course of events after the ventilator leading to the engine-room was washed away. The weather now had cleared somewhat, the wind had shifted to about west and the intervals between the squalls were of longer duration. This state of things continued, viz., strong gale, squalls, water pouring into the fore hold through the broken ventilator hole, and the hold rapidly filling in spite of the pumps which were working full power.

About 1.30 a.m. a further misfortune occurred, the fore hatches blew off amidst a cloud of coal dust. Shortly after 2 a.m. the ship became unmanageable, and about 2.30 a.m. they began firing distress signals, the ship drifting into Bidford Bay. These signals were continued at intervals of 15 or 20 minutes until the "Arndale" was sighted about 8 or 9 miles away on the starboard bow. As she approached blue lights were shown from the port side of the "Thistle-mor" to attract the "Arndale."

At this point it may not be out of place to give here a brief history of the movements of the s.s. "Arndale" which vessel left Newport, Mon., about an hour after the "Thistle-mor," thus encountered the same weather, and had a similar experience up to a certain point, which necessitated her return to Barry Roads, in doing which she saw the distress signals of the "Thistle-mor" and bore down to her assistance.

At 3.30 a.m. on the 3rd December last, the "Arndale," when some 4 miles to the N.N.W. of Hartland Point, shipped a heavy sea which washed adrift No. 2 hatch tarpaulin; whilst securing it, the second mate had his leg broken by another sea breaking inboard, in consequence of which the master at 4.30 a.m. decided to turn back to Barry Roads to procure medical assistance; shortly after doing so, he noticed a rocket fired from a vessel proving to be the "Thistle-mor," some 8 miles off and bearing about east. Judging that the rocket was a distress signal, he steered his vessel towards it, and whilst doing so, noticed several other rockets fired from the same direction, at intervals of 10 or 15 minutes. The atmosphere at that time was very clear at times, Hartland Point Light and Lundy South Light being plainly visible; the last rocket seen by those on board the "Arndale" was shown from the "Thistle-mor" at 6 a.m., just as they closed in with her. Shortly after this she showed several blue lights, which the "Arndale" replied to by showing two blue lights. By the time that the "Arndale" came up with the "Thistle-mor" the latter was much down by the head and drifting helplessly towards the shore in Barnstaple Bay.

Between 6 a.m. and 6.30 a.m. the "Arndale" came up to the "Thistle-mor," and after much manoeuvring got to leeward of her. A part of the "Thistle-mor's" crew then proceeded to lower the port lifeboat into the water.

In shoving off from the ship the boat capsized and the 15 men in her were thrown into the water, some of whom succeeded in returning to the "Thistle-mor," whilst others remained clinging to the bottom of the boat. The "Arndale" meanwhile approaching too closely to the "Thistle-mor," was obliged to steam ahead and turn round. After doing so, she heard the cries of the men clinging to the upturned boat, and steaming towards them, picked up nine of them alive, and one dead. Whilst engaged in doing this she lost sight of the "Thistle-mor," which had drifted away and foundered. When the "Thistle-mor" was last seen the remainder of her crew were observed clearing away the jolly-boat.

After the "Thistle-mor" foundered the "Arndale" steamed ahead, and observed the "Thistle-mor's" bottom appear several times above the water before she finally disappeared.

The Clovelly lifeboat arrived on the scene about half an hour afterwards. She sailed close under the lee of the "Arndale," and was informed that a large steamer had just foundered close to on the port bow. She then proceeded in that direction, and the "Arndale" lay, stopped about half an hour amongst the floating wreckage, and there being no signs of life visible proceeded up Channel.

The system of watching the coast by a chain of fixed watchers connected by telephone being dealt with in the answers to the questions which follow, viz., Nos. 17a, 17b, and 17c, it is only necessary to state here that the opinion about more coast patrolling being carried out where practicable was formed after a personal inspection of part of the coast by some members of the Court.

The Court is of opinion that the strict and constant watching that should be kept on this dangerous coast during stormy weather, such as prevailed on the night in question, could not be long maintained at a station where there are only two watchers.

With regard to the blue light seen by the lighthouse keeper at Hartland Point Lighthouse between 5 and 6 a.m. on the 3rd December (mentioned in the answer to question 13), if this was so, the Court is unable to understand why it was not also observed by the coastguard watcher at Hartland Point.

In respect to the telephone, carefully thought out methods which were explained to the Court have been adopted for ensuring it being maintained in good working order and its efficiency is daily tested.

That it was in good order on the morning of the 3rd December the Court has no doubt, and when the coastguard watcher at Peppercombe states that at 4.50 a.m. he failed to get any reply when he rung up Clovelly, it is most probable that the coastguard watcher there (Clovelly) had left the telephone to call his relief, and was absent from it for a longer time than he stated in his evidence.

The Court was struck with the small number of the shore watchers who, in giving their evidence, were able to state they had actually seen any socket signals fired such as they might expect to see from a vessel in distress. Some instruction to the watchers would, therefore, seem desirable on this point.

The Court procured some socket signals similar to those burnt by the "Thistle-mor," and sent them up at 9 p.m. on the 10th instant.

They ascended to a great height, burst well, and the explosion on firing and again on bursting was loud and clear, whilst the stars displayed after the burst were brilliant and lasted for seven or eight seconds.

In fair weather they should have been seen at a great distance.

Some stick rockets which were fired at the same time appeared to the Court to be very poor in comparison.

Before closing the narrative of this casualty, the Court desires to place on record its appreciation of the skill and courage displayed by the master and crew of the s.s. "Arndale," in so promptly coming to the assistance of the s.s. "Thistle-mor" and saving the lives of nine of her crew.

It necessitated the exercise of no common nerve and judgment to successfully manoeuvre a vessel under such conditions as then obtained, and reflects the highest credit on all concerned.

At the conclusion of the evidence the following questions were submitted by the Board of Trade for the opinion of the Court. Lieut. Drury, Western District Inspector of the Royal National Lifeboat Institution, then addressed the Court on behalf of the Royal National Lifeboat Institution, Mr. W. T. Charlewood, on behalf of the Local Coast Watching Association, Captain Grant Dalton, R.N., on behalf of the Admiralty, and

Mr. Abel Thomas, K.C., M.P., replied for the Board of Trade:—

(1) When the vessel left Cardiff on the 2nd December last—

- (a) Was she in good and seaworthy condition as regards hull and equipment?
- (b) Was she supplied with proper boats and life-saving appliances?
- (c) What supply of flares or blue lights and distress signals had the vessel on board?
- (d) Was her cargo properly stowed and had she the freeboard required by the Statute?

(2) What were the names and ratings of the persons forming her crew? Had she a full complement of crew?

(3) Where did the pilot leave the vessel on the morning of the 2nd December last? At what speed was the vessel navigated thereafter and what description of weather and sea were encountered throughout the day?

(4) What was the cause of the ventilator (a) at No. 2 hatch, (b) the bogey funnel on the forecabin, (c) and the ventilator on the bridge deck leading to the engine-room and (d) on the after part of the forward well deck carrying away during the night of the 2nd/3rd December last? Were efforts made to plug the holes left in the decks and prevent water getting below?

Were any precautions taken to plug the ventilator openings on the approach of bad weather? Should any such precautions have been taken?

(5) At what time on the night of the 2nd/3rd December last was the vessel turned round and headed to the eastward? What was her position then?

(6) At what time on the morning of the 3rd December last did the vessel become unmanageable, what was the cause of it, and what was her position then?

(7) How many (a) socket signals, (b) rockets were fired from the vessel on the morning of the 3rd December, at what time were they fired, and did they ascend to a good height and act properly? What was the position of the vessel and what was the condition of the weather while the rockets and/or socket signals were being fired?

(8) Were any blue lights burnt on board the vessel on the morning of the 3rd December last, if so, how many blue lights were burnt? Were they good blue lights and from what part or parts of the vessel were they shown? At what times were the blue lights burnt? What was the position of the vessel, and what was the condition of the weather while the blue lights were being burnt?

(9) Were any distress signals other than socket signals or rockets shown or made by those on board the "Thistle-mor" on the morning of the 3rd December last?

(10) When did the s.s. "Arndale" first see the rockets or socket signals fired from the "Thistle-mor," what were the positions of the two vessels respectively, and what was the condition of the weather at that time?

(11) At what time did the "Arndale" come up with the "Thistle-mor"? What assistance did she render her?

What blue lights, if any, were shown by the s.s. "Arndale"?

(12) By what persons on shore were the rockets or socket signals shown by the "Thistle-mor" seen?

(13) By what persons on shore were the blue lights shown by the "Thistle-mor" and "Arndale" seen? What were they taken to signify?

(14) When and in what circumstances was the Clovelly lifeboat launched? How was it that she did not succeed in rendering assistance to the crew of the "Thistle-mor"?

(15) Where and at what time did the "Thistle-mor" founder?

(16) What was the cause of the loss of the s.s. "Thistle-mor"?

(17) (a) What were the arrangements for watching for vessels in distress and signals of distress on the coast of the mainland between and including Downend Point (Croyde) and Hartland Quay, and on the coast at Lundy Island South, between 6 p.m. of the 2nd and 8 a.m. of the 3rd December last?

(b) Were the arrangements provided for watching purposes such that the coasts in question should have been well watched for vessels in distress and signals of distress on the night and morning in question?

- (c) Was the look-out which was actually kept at the various places between and including Downend Point (Croyde) and Hartland Quay, and on the coast at Lundy Island South, between 5 p.m. of the 2nd and 8 a.m. of the 3rd December last, good and continuous?

To which the Court replied as follows:—

- (1) (a) The vessel was in good and seaworthy condition as regards hull and equipments.
 (b) She was supplied with proper boats and life-saving appliances.
 (c) The vessel was not supplied with flares, but had a sufficient number of blue lights and distress signals on board. By the vouchers produced in Court, 12 socket signals and 12 blue lights were supplied before she left Cardiff, and 12 stick rockets in July, 1906.
 (d) The cargo was properly stowed, and she had the freeboard required by the Statute.
 (2) She had a full complement of crew, the names and ratings of whom are herewith set out:—

Names.	Age.	Rating.	Birthplace.
<i>Saved.</i>			
John T. Stephenson ...	54	Chief engineer ...	Stockton
G. Clark ...	19	A.B. ...	New Zealand
Stelian Casarn ...	22	Do. ...	Roumania
C. Busher ...	24	Do. ...	Wexford
T. Brough ...	30	Fireman & trimmer	Liverpool
C. Turner ...	32	Do.	Do.
Walter Croker ...	25	Do.	Do.
Edward Brett ...	25	Do.	Do.
Andrew Minto ...	19	Apprentice ...	Newcastle-on-Tyne
<i>Drowned.</i>			
J. A. Anderson ...	41	Master ...	North Shields
T. Foster ...	33	Mate ...	Sunderland
T. Ireland ...	34	Second Mate ...	Widnes
Carl Kjellin ...	38	Carpenter ...	Finland
J. McAndrew ...	50	Boatswain & lamp trimmer	Sunderland
Charles Forslund ...	31	Sailor ...	Sweden
J. Ayrton ...	31	A.B. ...	Lancashire
H. Howard ...	20	Sailor ...	Wexford
J. Lee ...	22	A.B. ...	Burscough
A. R. Foster ...	24	Second engineer...	Portland
Arthur Carr ...	23	Third engineer ...	Sunderland
Philip Nicholson ...	21	Fourth engineer ...	W. Boldon
James Kelly ...	46	Donkeyman ...	Manchester
G. Woodburn ...	35	Fireman & trimmer	Liverpool
J. Bruetting ...	26	Do.	America
W. Varty ...	35	Do.	Hull
Florentine San Martin	33	Do.	Spain
Jos. L. DeLean ...	37	Steward ...	Batavia
W. Johnson ...	24	Assistant steward.	Bristol
J. Fuzzard ...	52	Ship's cook ...	Guernsey
George William Smith	19	Apprentice ...	London

(3) The pilot left the vessel on the morning of the 2nd December last off the Breaksea Lightship. The vessel was then put at full speed, 9 knots, which during the day could not be maintained. Soon after discharging the pilot, the wind freshened rapidly from the S.W., accompanied by rain; and as the day advanced, the weather became worse, a heavy sea rose, reducing her speed, and soon causing the vessel to ship large quantities of water over the fore-castle and well deck.

(4) (a) At about midnight of the 2nd/3rd December last, the vessel experienced the full force of a fierce S.W. gale; she was then shipping heavy seas over the fore-castle and well deck, one of which carried away the ventilator from the deck at No. 2 hold.

(b) The bogey funnel on the fore-castle was carried away by a sea shipped there earlier in the night.

(c) The ventilator on the bridge deck leading to the engine-room was carried away after 1 a.m. by a heavy sea striking and unshipping the port lifeboat from its chocks, and dashing it against the cowl, at the same time landing the keel of the boat across the vessel's steering rod.

(d) The ventilator on the after part of the forward well deck was carried away shortly before midnight by a heavy sea which at the same time wrenched the socket out of the iron deck, and tore away part of the bridge rail, and broke up some casks of oil which had been lashed there. Efforts were made to plug

the holes left in the decks and prevent the water getting below. The bogey funnel was plugged up efficiently, and made water-tight, shortly after the accident. The aperture left where the ventilator shaft and socket from the after part of the foreward well deck had been washed away, was a very serious matter, on account of the heavy seas by which it was constantly flooded. Bales of cotton waste separation cloths and settee cushions rolled up were unsuccessfully tried as they were washed away as soon as they were placed in position, and eventually the attempts had to be abandoned on account of danger to life attending them.

Precautions were not taken to plug the ventilator openings on approach of bad weather, and the Court is of opinion that such precautions should have been taken.

(5) At about midnight on the 2nd/3rd December last the vessel was turned round to the eastward—she was 8 or 9 miles down the channel across a line drawn from Hartland Point to Lundy Isle; the weather then was at its worst, the wind blowing with hurricane force from the S.W. with blinding showers of rain, spume, and mist.

(6) After the vessel was turned round with the object of getting for shelter into Lundy Roads, she at about 2.30 a.m. rapidly became unmanageable; large quantities of water had been and still were pouring down into No. 1 hold through the broken ventilator aperture, with the result that the vessel settled down very considerably by the head, so that at about 2 a.m. the fore-castle deck was nearly awash; this had such an effect on her steering that she failed to answer her helm, and the engines had to be reversed occasionally to keep her heading in the right direction, thus stopping her already slow progress towards Lundy Roads and rendering the efforts of the master to get her there abortive. She was then to the eastward of a position of a line drawn from Lundy to Hartland Point.

(7) On the morning of the 3rd December last, soon after 2.30 a.m., several socket signals and rockets (the number cannot be given) were fired from the bridge deck of the "Thistle-mor" at intervals varying from 15 minutes to half an hour; they ascended to an approximate height of 600 feet and acted properly. The position of the vessel would then be to the eastward of a line drawn between Hartland Point and Lundy Isle. The condition of the weather at that time and whilst the rockets or socket signals were being fired was most unfavourable for distinguishing them at anything approaching their full range, and the s.s. "Arndale," which subsequently went to the "Thistle-mor's" assistance, was unable at this time to see any of them, although she must have passed well within their range before she turned round to the eastward.

(8) Several blue lights, the exact number cannot be given, were burnt on board the vessel after 6 o'clock on the morning of the 3rd December last; they showed a good flare and were exhibited from the bridge and poop decks. The position of the vessel would then be on or near a line extended between Lundy Isle and Westward Ho. The weather at that time had improved somewhat—there were clear intervals lasting for a few minutes between the squalls when the blue lights could be seen at some distance.

(9) Many blue lights were shown or made as distress signals by those on board the "Thistle-mor" on the morning of the 3rd December last, presumably after the socket signals and rockets were expended.

(10) At 4 a.m. of the 3rd December last, the s.s. "Arndale," then on a voyage from Newport to Monte Video with Lundy Isle Light bearing N.N.E., turned round to proceed to Barry Roads in consequence of an accident to her second officer, whose leg had been broken whilst endeavouring to repair the damage to a ventilator from a heavy sea; shortly after the vessel was turned round a distress signal was observed ahead about 8 miles distant. The positions of the two vessels were then respectively: the "Arndale" 5 miles to S.S.W. of Lundy and the "Thistle-mor" about S.E. of the same place. The weather at the time is described by the master of the "Arndale" in his affidavit made on the 27th day of January, 1910, before His Britannic Majesty's Acting Consul General at Monte Video, as a heavy N.W. gale with very high sea, and the atmosphere is described as clear, Hartland Point Light and Lundy South Light being both plainly visible; Bideford Lights and several other lights on shore were also seen.

(11) After the "Arndale" had sighted the "Thistle-mor's" rockets, she steered in her direction to see what assistance she could render, and at about 6 a.m. closed with her and showed two blue lights; the "Thistle-mor" was then much down by the head and drifting towards the shore. After much manoeuvring in the heavy sea the "Arndale" succeeded in getting to leeward of her, just as her lifeboat was pushed off but almost immediately afterwards capsized. The "Arndale" was obliged to steam ahead as the vessels were getting too close, and turned round as quickly as possible and again approached the "Thistle-mor." As they did so the voices of men were heard in the water on their starboard bow calling for help; the day was then just dawning and a boat could be discerned bottom up and crowded with men whom the "Arndale" succeeded in picking up alive except one. Whilst these men were being rescued the "Thistle-mor" drifted away and foundered taking down with her the remaining members of the crew who were when last seen engaged in getting out the other boat.

(12) The Court is of opinion that the rocket signals or rockets shown by the "Thistle-mor" were not seen by any person on shore. The signals seen were those fired from Clovelly at about 6.30 a.m. on 3rd December last to indicate the launching of the lifeboat.

(13) Signals presumed to be rockets or blue lights shown by the "Thistle-mor" and/or "Arndale" were seen by the coastguard man on watch at Peppercombe at about 4 a.m. on 3rd December last. He reported what he had seen by telephone to Clovelly at 4.15 a.m., where the coastguard on duty who received the report considered they were signals for a pilot. This man neither passed on the report to his superior officer to get his opinion on the matter, nor did he ring up Hartland Point to make enquiries as he had promised the coastguard at Peppercombe to do, over the telephone when he was receiving the report. The lights were again seen by the coastguard on watch at Peppercombe, who states that he saw several and that he rang up Clovelly on the telephone at 4.50 a.m. to make a further report about the lights, but could get no reply. Had he then fired his rocket he would have saved the situation and got the lifeboat away in time to be of use. He failed to do so however, and seems to have made up his mind that the signals were being shown from an open boat.

A blue light was seen by the lighthouse keeper at Hartland Point between 5 and 6 a.m., shown by a ship bearing about N.N.E. of the lighthouse. Messrs. F. Badcock and S. Headon, of Clovelly, also saw these lights at 6.20 a.m. from Clovelly Pier.

(14) Messrs. Frank Badcock and Stephen Headon saw from Clovelly Pier at 6.20 a.m. on the 3rd December a blue flare in a W.N.W. direction apparently about 6 miles off. They promptly took steps to call out the lifeboat, and so quickly was she manned and so skilfully got away, that she had actually proceeded some distance under oars by the time the two rockets were fired for the purpose of summoning the crew.

In spite of splendid handling by Mr. J. T. Pengilly, her coxswain, under double reefed canvas, the lifeboat did not succeed in rendering assistance to the crew of the "Thistle-mor," because she was called out too late, and only arrived on the spot after that vessel had sunk.

This was through the hesitation and want of initiative shown by the coastguard watchman at Peppercombe at and after 4.50 a.m. on the one hand, and the gross neglect of duty on the part of the coastguard watchman at Clovelly to whom the report was made at 4.15 a.m. from Peppercombe, on the other hand.

(15) The "Thistle-mor" foundered with South Lundy Lighthouse bearing N. 60 W., Hartland Point Lighthouse S. 51 W. in 64 feet of water, at 7.30 to 8 o'clock on the morning of the 3rd December last. The "Arndale" steamed close to where she foundered, and observed her bottom appear above water before she finally disappeared.

(16) The loss of the "Thistle-mor" was caused by her encountering a violent S.W. gale during the night and early morning on the 2nd/3rd December last, in the course of which heavy seas broke over her fore-castle and well deck, tearing from the fastenings the ventilators and sockets, and causing other material damage. Through the openings thus made in the deck, large quantities of water penetrated into No. 1 hold, bringing the vessel so much down by the head that she became unmanageable. Other seas were shipped down the fidley gratings and engine-room ventilators, which soon after led to the vessel foundering with her master and 20 of her crew.

(17) (a) The arrangements for watching for vessels in distress and signals of distress on the coast of the mainland between and including Downend Point (Croyde) and Hartland Quay, between 6 p.m. of the 2nd and 8 a.m. of the 3rd December, consisted of a chain of watchers between the points mentioned, all connected by telephone. Commencing at Croyde there were:—

- 1 chief boatman in charge.
- 2 commissioned boatmen.
- 1 boatman.
- At Appledore ... 1 chief boatman.
- 1 commissioned boatman.
- At Westward Ho ... 1 chief boatman in charge.
- 2 commissioned boatmen.
- At Peppercombe ... 1 commissioned boatman.
- 1 boatman.
- At Clovelly... ... 1 chief officer.
- 2 chief boatmen.
- 3 commissioned boatmen.
- At Hartland Point ... 2 men from Clovelly.

Besides these a man was stationed at Appledore by the Hon. Secretary of the Lifeboat Institution in the look-out near the lifeboat house, and a volunteer watch (paid for by the Board of Trade) was kept at Hartland Quay near the house containing the life-saving apparatus.

There was a look-out also kept by the coastguard at Lundy Island, where there were stationed:—

- 1 chief officer.
- 1 commissioned boatman.
- 2 boatmen.

The lighthouse keepers at Hartland Point and Lundy Island kept a look-out as well.

The Court is of opinion that though the system of fixed watches with telephonic communication on the night in question was good, it would have been still better had the coast been patrolled from Westward Ho. to the west side of Rocks Nose, from whence a full view of Clovelly Bay is obtained. It should be noted that the three men who were the watchers at Hartland Quay were agricultural labourers, who had done a day's work before undertaking watching duties.

Sea-faring men should be employed on this duty if possible, and the Court is further of opinion that in stormy weather more of the coast should be patrolled when practicable, and to carry this out the staff should be increased.

(b) The arrangements provided for watching purposes were such that the coasts in question should have been well watched for vessels in distress and signals of distress, on the night and morning in question; and such signals were actually seen by the coastguard on watch at Peppercombe about 4 a.m. on the 3rd December last.

(c) The look-out, which was actually kept at the various look-out places between and including Downend Point (Croyde) and Hartland Quay, and on the coast of Lundy Island South between 6 p.m. of the 2nd and 8 a.m. of the 3rd December was good and continuous, subject, however, to the observation of the Court in answer to question 13.

The atmospheric conditions prevailing during the gale must have been such as to dim the lights of any distress signals shown, and so limit their range; until such signals were seen at Peppercombe at about 4 a.m. on the 3rd December when, through a change of wind, the atmosphere had commenced to clear somewhat.

WILSON HOARE,
JOSEPH C. T. HERIZ SMITH, } Justices.
JAMES PATON,

We concur.

W. MARRACK,
Vice-Admiral, } Assessors.
W. H. SINCLAIR LOUITT,
H. E. BATT,