

Wreck Report for 'Falls of Afton', 1882

Unique ID: 14820

Description: Board of Trade Wreck Report for 'Falls of Afton', 1882

Creator: Board of Trade

Date: 1882 (No. 1414.)

## "FALLS OF AFTON"

The Merchant Shipping Acts, 1854 to 1876.

In the matter of the formal Investigation held at Westminster, on the 26th, 27th, 28th, 29th, and 30th of June and the 1st of July 1882, before H. C. ROTHERY, Esquire, Wreck Commissioner, assisted by Captain KENNEDY, Captain PARISH, and W. B. ROBINSON, Esq., Chief Constructor, R.N., as Assessors, into the circumstances attending the abandonment of the sailing ship "FALLS OF AFTON," of Glasgow, on the 28th of April 1882, whilst on a voyage from Glasgow to Calcutta.

Report of Court.

The Court, having carefully inquired into the circumstances of the above-mentioned shipping casualty, finds, for the reasons annexed, that the said ship, when she left Glasgow on the 15th of April last, was in a good and seaworthy condition, and that her cargo was properly stowed; and that the master, Thomas Bryce, was guilty of very grave misconduct in allowing the sluice in the collision bulkhead to remain open, and in cutting the suction pipe in the after peak, and turning on the water into the hold, and that she was improperly and prematurely abandoned on the 28th of the same month.

For these wrongful acts and defaults the Court cancels the certificate of the said Thomas Bryce.

The Court is not asked to make any order as to costs.

Dated this 1st day of July 1882.

H. C. ROTHERY, Wreck Commissioner.

We concur in the above report.

H. C. KENNEDY, ALF. PARISH,

Assessors.

W. BRAHAM ROBINSON, C.C., R.N.

## Annex to the Report.

This case was heard at Westminster on the 26th, 27th, 28th, 29th and 30th days of June and the 1st of July 1882, when Mr. Middleton appeared for the Board of Trade, Mr. Biron for the owners, Mr. Coxwell for the master, and Mr. Aspinall for the builders of the "Falls of Afton." Eleven witnesses having been produced by the Board of Trade and examined, and the depositions of four witnesses taken at Madeira having been put in and read, and the proceedings taken before a Naval Court at that place having, on the application of Mr. Coxwell, been also put in, Mr. Middleton handed in a statement of the questions upon which the Board of Trade desired the opinion of the Court. Mr. Biron, Mr. Aspinall, and Mr. Coxwell having then produced evidence on behalf of their respective parties, addressed the Court, and Mr. Middleton having been heard in reply, the Court proceeded to give judgment on the questions on which its opinion had been asked. The circumstances of the case are as follow:

The "Falls of Afton" is a four-masted iron ship, belonging to the port of Glasgow, of 1,973 tons gross and 1,899 tons net register. She was built at Greenock in the year 1882, and at the time of the casualty which forms the subject of the present inquiry, she was the property of Mr. Michael Breakenridge, of No. 69, St. George's Street, Glasgow, and others, Mr. Michael Breakenridge being the managing owner. She left Glasgow at about 8 a.m. of the 15th of April last for Calcutta, with a crew of 29 hands all told, and a cargo of 2,500 tons of iron railway sleepers, 150 tons of pig iron, 150 tons of smithy coal, and 100 tons of coke, in addition to which she had 36 tons measurement of glass, and about 134 tons measurement of wood and boards for dunnage. Having adjusted her compasses, she left Gareloch at about 2 p.m. in tow of a steam tug, and proceeded to the S.W. And here I may observe that in the remarks which I am about to make, I shall follow civil and not nautical time, as it may prevent some confusion. At 5.30 a.m. of the following morning the wind changed to the S.W., and accordingly the vessel's head was laid so as to go north about, and at about seven the same morning, the steam tug having been cast off, she proceeded under sail, heading to the N.W. For the first two or three days the weather was variable, and the vessel was kept on her course steering to the N.W. Early, however, on the morning of the 19th, a strong gale set in, which caused the ship to labour heavily, and carried away some portions of the running rigging; and we are told that at 8 that morning there were 4 inches of water in the well, but as the pumps sucked at 5 inches, that was of course a matter of little consequence. In the afternoon of that day they had cleared the Irish coast, upon which they wore ship to the southward, and continued on that course during that and the following day, the wind all the time blowing strong from the S.W. On the morning of the 21st we are told that there were 7 inches of water in the well, but the gale having by that time abated, they soon after set all plain sail, and the carpenter was employed setting and screwing up the bolts and nuts aloft. In the afternoon of the same day there were, we are told, 12 inches of water in the well; but on the following morning the carpenter, having been sent down the pump well to ascertain what water there was in the ship, reported that there were 8 inches in her, and that, owing to the heavy rolling, the pumps sucked at that. Throughout that day the wind increased, the vessel labouring and shipping a great deal of water, and on the morning of the 23rd there were 12 inches of water in the well. Upon this the captain, accompanied by the chief officer and the carpenter, went below to endeavour to discover where the leak was. On creeping over the cargo in the 'tween decks they found, we are told in the log book, that the decks were leaking like a shower bath, and at the angle irons round the ports, especially the main one on the port side, where the water was spurting

in at a great rate. On then examining the fore peak they found 6 feet of water in it, and all the bow ports leaking. The captain thereupon ordered the carpenter to stop the ports as well as he could with tallow and grease, and this he said he did, except at a rivet head on the fore part of the main port on the port side, where we are told the water, as the ship heeled over, was spurting some 2 feet into the vessel, and which he found it impossible to stop. The captain then, after consulting with the 2 mates and the carpenter, deeming it unsafe to proceed, at 2 p.m. wore the ship to the eastward with the view of returning home, and that evening we are told there were 15 inches of water in the well. The vessel was continued on her course heading to the eastward until about 6 the following morning, when they again wore ship to the south. That morning some water, we are not told how much, was discovered in the fore peak, and the sluice was accordingly opened to allow it to run to the well; and at the same time the sea cocks were shut off. At midday it is said that there were still 15 inches of water in the well, the same as on the preceding evening. On the 25th, in the forenoon, the water in the well had fallen to 13 inches, 2 inches less than on the preceding day; but we are told that there were 10 feet in the fore peak. Accordingly the sluice was opened to allow the water to get to the well, and from that time we are told that it was not closed again. In the afternoon the water had fallen to 12 inches; and at 7 p.m. some of the crew came aft, and asked what was to be done with the ship, as they were completely worn out with pumping; upon which the master ordered the pumps to stand throughout the night, so as to give the men a rest, and at the same time decided to shape a course for Madeira. At mid-day of the 26th, the pumps having been allowed to rest during the night, we are told that there were 18 inches of water in the well, and 5 feet in the fore peak; but in the afternoon the water had again fallen to 17 inches, and on the following morning it was still at 17 inches. The same evening there were only 16 inches of water in the well. At midnight the pumps broke down, owing to two of the bolts, which connected the handle with the crank, having become bent; this was, however, easily repaired by the carpenter, and on the morning of the 28th there were still only 16 inches of water in the well. At 8 a.m. the pumps again broke down, one of the same bolts having broken, but this was again readily repaired by the carpenter; and at 11 o'clock it was reported that there were 17 inches in the well, which by midday had increased to 18 inches; and although the pumps were then in perfect working order, they were not again used whilst the crew were on board. At 3 p.m. we are told that there were 19 inches in the well, and at 4 p.m., or according to the carpenter at 5 p.m., there were 23 inches. In the meantime a vessel, which afterwards proved to be the Norwegian barque "Forto," and which had been seen from early that day, had on being signalled bore down to them; and a boat having been lowered from the "Falls of Afton," the chief officer was sent to ask the master of the "Forto" if he would stand by them till they could get the vessel to Madeira. On the master of the "Forto" consenting to do this, the chief officer of the "Falls of Afton" at once pulled back to his own vessel, but before he had got back he found that the master had in the meantime ordered the men to get their things together. and that they were on the point of going to the "Forto." The chief mate, however, persuaded the master to stay by the ship during the night, but the crew were sent to the "Forto," the master, the two mates, the steward, and a seaman named Ferguson remaining behind. At about 9 p.m. they sounded and found 24 inches in her, or about 1 inch more than there had been at 4 or 5 the same evening, although there had been no pumping going on during that time. At about 10 o'clock, the vessel having given one or two heavy rolls, we are told that the second mate, the steward, and Ferguson got into the boat and called out that the vessel was sinking, and that they would not wait any longer. Upon which the master and chief mate got into the boat, and after pulling for about an hour and a half they were picked up by the "Forto." The "Forto" then stood away for Madeira, off which they arrived on the 30th: and the officers and crew

of the "Falls of Afton" having got into their boats, they landed the same afternoon at Funchal; and on the following day the master duly entered his protest before the British Consul.

In the meantime the "Falls of Afton," which was we are told in latitude 36° 22" north and longitude 16° 10" west at noon of the 28th before she was abandoned, had been picked up the day after in latitude 35° 51" north and longitude 18° 15" west by a French vessel the "Braziliro," the captain of which, on boarding her and finding only about 3 feet of water in the hold, determined to make an attempt to take her into Madeira, and with that view he put on board her his first mate and 4 seamen. They immediately set to work to pump her, and after working from about 1 p.m. to 5 p.m., finding that they could make no impression upon the water, they looked about to see where the leak was; and hearing water coming in aft, the mate went down through a hole, which had been cut in the floor of the lazarette, into the after peak, and there discovered that the pipe which led from the after sea cock had been cut, and that the water was flowing into the ship. Having stopped up the pipe with the handle of a scraper, they found that she made no more water, and they then continued their course toward Madeira, following the "Braziliro," and arrived off the island at midnight of the 30th. Both anchors, however, having been dropped in too deep water, ran out and were lost; upon which, the wind being fortunately off shore, they wore and stood out to sea again, and falling in soon afterwards with the French squadron of instruction the admiral, at the request of the captain of the "Braziliro," sent two officers and 40 men from the French ship-of-war "Alceste" to assist the vessel into the roads, which they succeeded in reaching on the night of the 2nd May and came to anchor. And according to the evidence of the two officers from the "Alceste," the "Falls of Afton," during the forty hours that they were on board, made no water whatever, and the vessel herself was in perfectly good condition.

As soon as information of the casualty reached this country the underwriters in Liverpool and the London Salvage Association sent out two gentlemen, Mr. Stark and Mr. Charles Newman, to examine the vessel and to report upon her condition. They arrived at Madeira on the 9th of May, and remained there until after the vessel had left for Calcutta on the 7th of June following, and during that time they appear to have made a most careful and thorough examination of the vessel. They told us that when they first went on board her they found 3 feet of water in the well, and no more, and that she then drew 22 feet 8 forward and 22 feet 6 aft, giving a mean of 22 feet 7. They said that they found the pipe in the after peak cut through, and stopped up with the handle of a scraper, as described by the crew of the French vessel, the "Braziliro;" they also found the nut at the bottom of the plug to the cock in the fore peak off and lying in the limbers. They said that the ports were leaking to a certain extent the water coming in at the main cargo port on the port side "pretty lively," and that the water which was coming in at that port struck against one of the rivet heads and gave the appearance as though the rivet hole was leaking, but that they tried and found it perfectly tight. They said that they had examined the vessel most carefully all over, but could find no evidence of her having strained in any part, that the rivets were all perfectly good and solid, and that all that was required to make the ports solid was to screw them up from the inside the packing having shrunk. They told us that on the 11th of May they engaged a gang of 4 men to pump her out; that on the 11th they took two spells, and on the 12th four spells, and that on the 13th the pumps sucked at 5 inches, and that they took it easy all the time. They said that after this they jogged at the pumps till the 18th, but could get no water, and that from that time the vessel was quite tight. When pumped out we are told that she drew 21 feet 4 forward and 21 feet 8 aft, or a mean of 21 feet 6 inches.

In the meantime a new master, chief officer, and carpenter, as well as 8 A.B.'s, had been sent out from England, and joined on the 2nd of June, and the rest of the old crew, with the exception of the master, chief officer, and carpenter, who had gone home, having rejoined, the vessel had then a crew of 37 hands. Some slight repairs were then done to her, the pipe in the after peak was mended, the nut of the cock in the fore peak was screwed on, two of the outriggers of the crosstrees which had been broken were mended, and the other four, which had been found under the forecandle deck, were put up; and the vessel left on the 7th of the same month to prosecute her voyage to Calcutta, the vessel being, in the opinion of the representatives of the underwriters, in a perfectly sound and seaworthy condition as regards her hull, rigging, and cargo.

We must now return to the arrival of the vessel in the Bay of Funchal. On its being found that the pipe in the after peak had been cut, the British Consul deemed it proper to summon a Naval Court for the purpose of trying the master and officers on the charge of having cut, or caused to be cut, the suction pipe, and of having improperly abandoned the vessel. The Court, which consisted of the British Consul, of the captain and some of the officers of H.M.S. "Amethyst," and of the master of a British yacht, called the "Jason," met on the 8th of May, and after examining a number of other witnesses they took the evidence of the master, when he admitted that he had, previous to leaving the vessel, cut the pipe, with the view, as he said, of making the vessel sink more quickly. The Court thereupon found the master guilty of having, on his own confession, cut the suction pipe, as well as of having improperly abandoned the ship, and having regard to "the criminal" nature of the offence they committed him "to take" his trial in England on these charges," at the same time ordering that he should "be kept in custody till" the opportunity occurred of his being brought to "trial." He was accordingly sent to this country with the chief mate and carpenter of the ship, and upon his arrival at Southampton was handed over to the police, by whom he was brought before the magistrates, who, after hearing the evidence, adjourned the case. Ultimately, however, after several adjournments, the master, after the first adjournment, having been let out on bail, the summons was dismissed on the ground that the evidence was insufficient to commit him.

These then being the facts of the case, the Board of Trade have put a large number of questions to us; but before I proceed to deal with them, it may be well to dispose of two objections, which have been raised by Mr. Coxwell to the jurisdiction of the Court. His first objection was that, the master having been put upon his trial on a criminal charge and acquitted, it was not competent to the Court to entertain any charge against him arising out of the subject matter of this inquiry. But is it clear that the master has been put upon his trial and acquitted? According to the evidence of the clerk to the justices at Southampton, all that the magistrates did was to dismiss the summons, the evidence tendered to them not being in their opinion sufficient to substantiate the charges; but he told us that, if fresh evidence were produced, there was no reason why they should not even now commit him. I will, however, go further and say that, even if he had been committed, tried, and acquitted, it would in my opinion be no ground for this Court staying its hand. The question for the criminal Court is whether the evidence is sufficient to punish the master criminally for his conduct; but the question for this Court is a very different one-it is to ascertain whether on the evidence before it the master's certificate should be dealt with. The questions are totally distinct, and evidence admissible in the one case may be rightly or wrongly inadmissible in the other. I held in the case of the "Agnes," as well as in that of the "Benbow" and "Ostrich," that this Court would have jurisdiction even though a criminal prosecution had been preferred, and the master had been acquitted; and I see no reason to depart from that view.

The other objection taken by Mr. Coxwell was that the whole question had been already tried by a Court of competent jurisdiction, namely, by the Naval Court at Madeira, and that consequently this Court had no right to entertain it, it being in the form of an original suit, and not a re-hearing under the Act of 1879. It appears to me that there is something more in this objection than in the preceding one; but on the whole I am inclined to think that the question before the Court at Madeira was not exactly the same, so as to oust the jurisdiction of this Court. It will be observed that the Naval Court was constituted under the 3rd part of the Act of 1854, whereas this Court derives its authority from the 8th part of that Act. The duties and powers also of a Naval Court, which are defined by the 263rd section of the Act, are very different to those of this Court. The Naval Court has the power to supersede the master of a vessel. and to appoint another person in his stead; it may discharge any seaman from his ship; it may order the wages of any seaman so discharged to be forfeited; it may decide any questions as to wages, fines, or forfeitures; and it may order any offenders to be sent home for trial. These are some of the duties of a Naval Court, but which are quite foreign to those possessed by this Court. It is true that by a subsequent Act, that of 1862, a Naval Court has the power to deal with a master's certificate, but that power it did not think proper to exercise, although it was very clearly of opinion that this master had been guilty of a highly criminal offence, for it says nothing at all about his certificate. The only conclusion, then, to which we can come, is that the Naval Court sought only to exercise one amongst the many powers with which it is entrusted, namely, to ascertain whether he had been guilty of a criminal offence for which he ought to be put on his trial, and of that they found him guilty. The duty which they discharged was very similar to that performed by the magistrates at Southampton; the difference being that on the evidence before them they came to the conclusion that the master ought to be put on his trial, whereas the magistrates at Southampton, on the evidence before them, came to a different conclusion. But neither the Court at Madeira, any more than the magistrates at Southampton, had entertained the question which this Court is now called upon to decide; or, so far as the master is concerned, had formed any opinion as to whether his certificate ought or ought not to be dealt with.

I will now proceed therefore to deal with the questions upon which the Board of Trade has asked for our opinion. They are as follow :

1. Whether, when the vessel left Port Glasgow, she was in good and seaworthy condition?
2. Whether the vessel was sufficiently manned?
3. Whether the cock on the ship's side in the lower for peak was in good and proper order, and whether any measures were taken to ascertain that the vessel was watertight before she left Port Glasgow?
4. Whether proper measures were taken to mark the rod for opening the sluice valve and other rods for opening cocks on the ship's side, so as to shew from the deck whether these valves and cocks were open or shut?
5. Whether the rigging was of good material, properly fitted and in good order; and whether the bolts were properly screwed up; and whether, when she left Port Glasgow, the rigging was properly set up?

6. Whether the cargo ports were properly fitted, and whether proper measures were taken to ascertain that they were efficiently secured before the vessel left Port Glasgow?
7. Whether the pumps were sufficient and in good order?
8. Whether the cargo was properly stowed, i.e., so as to make the vessel as easy as possible in a seaway; and whether it was properly secured?
9. When did the vessel first begin to make water excessively, and were prompt and proper measures taken to ascertain the position of and to stop the leak?
10. Was any examination of the vessel made before 23rd April; and ought such examination to have been made before?
11. Whether soon after sailing the gear aloft gateway?
12. Whether the bolts worked off, and if so, what was the cause thereof?
13. Whether the outriggers aloft on all, or any and which, of the masts came down, and if so, what was the cause thereof?
14. How much water was in the fore peak on the 23rd April and how did it get there, and were all proper measures taken in consequence?
15. Did the water increase in the fore peak from 6 feet on the 23rd to 10 feet on the 24th, and was the sluice afterwards kept constantly open and was that a proper course?
16. What was the cause of the vessel subsequently making water?
17. Whether any material leakage arose from the cargo ports, and if so whether proper measures were taken to secure the ports and to stop such leakage?
18. Whether proper measures were taken from time to time to ascertain the exact quantity of water in the vessel, and did it materially increase between the 24th and midday on the 28th, and why did it increase at the last mentioned time?
19. Whether on the 27th the cargo was surging, and whether proper efforts were made to secure it
20. Why did the master order the carpenter to cut the pipe casing on the 27th April?
21. What was the cause of the pumps breaking down on the morning of the 28th April; whether they were properly repaired; and whether they were used afterwards?
22. Whether the pumps were used with sufficient frequency throughout the voyage?
23. Whether when the crew ceased pumping the forward sluice was closed, and if not, why was it not closed?
24. Whether on the afternoon of the 28th the master was justified in ordering the boats out and subsequently ordering the crew to leave the vessel?

25. What were the circumstances in which the master subsequently left the vessel. whether the second officer informed him that the vessel was sinking, and whether the master took any measures to ascertain for himself whether or not the vessel was actually sinking?

26. When did the master cut the suction pipe? When did he let the water into the ship, and was he justified in doing these acts or any of them?

27. Whether the vessel was navigated with proper and seamanlike care?

28. Whether she was willfully or prematurely abandoned?

29. Whether the master was guilty of a gross act of misconduct in respect of the admission of water into the ship, and whether the abandonment of the ship was caused by his wrongful act or default?

The Board of Trade are of opinion that the certificate of the master should be dealt with.

Now if I were to attempt to take the course, which I generally do in these cases, that is, to answer categorically all the questions in the order in which they have been put to us, I fear that I should have to travel again and again over the same ground, which would be neither very convenient nor very satisfactory. What then I will do is to endeavour to ascertain, as far as I am able, what really are the points on which the Board desires to have our opinion; and they appear to me to be as follow :

1. Was the vessel when she left Port Glasgow in good and seaworthy condition?

2. Was she sufficiently manned?

3. Was her rigging in good order?

4. Was her cargo properly stowed?

5. Were the pumps sufficient and in good order?

6. When did the vessel first begin to leak, and what was the cause thereof? And were prompt and proper measures taken to stop the leaks?

7. Was the cock in the fore peak in good and proper order when the vessel left Port Glasgow, and whether it is probable that any water got into the vessel through it?

8. When did the master cut the suction pipe in the after peak, and when was the water turned into the vessel? what was his object, and was he justified in so doing?

9. Was the master justified in ordering the crew to leave the vessel, and was she willfully or prematurely abandoned?

The above questions seem to me to cover all the points on which the Board of Trade desire our opinion.

First, then, "Was the vessel, when she left Port " Glasgow, in good and seaworthy condition?" It seems that this was her first voyage, the vessel having been finished only a few days before she left. She was built under special survey and was classed 100 A1, at Lloyd's; and the two surveyors to Lloyd's, under whose inspection she was built, as well as Mr. McMillan the gentleman who was



appointed by the owners to superintend the building, have told us that she was in every respect a first class vessel, and was in many particulars above the requirements of Lloyd's. Their evidence was fully confirmed, not only by the builders and owners. but also by Messrs. Stark and Newman, the skilled surveyors who were sent out from this country by the underwriters, to inspect and report upon her. With such evidence before us it is impossible for us to come to any other conclusion, than that the vessel, when she left this country, was in good and seaworthy condition.

Secondly, "Was she sufficiently manned?" We are told that her crew, when she left, consisted of a master, 2 mates, a sailmaker, carpenter, cook, steward, 16 A.B's, 3 O.S., and 3 apprentices, making 29 hands in all; they were one short of their complement, the boatswain, who had signed articles for the voyage, not having turned up at the last, and he was accordingly left behind. It seems that the 3 apprentices had never before been to sea, and they would consequently at first be quite useless, thus reducing the effective portion of the crew, at all events in the earlier part of the voyage, to only 26 hands, of whom 3 were ordinary seamen. And Mr. Middleton stated that in the opinion of the professional advisers of the Board of Trade that was not a sufficient crew. On the other hand we have the evidence of a number of witnesses who have told us that owing to the vessel being four masted she could be worked with fewer hands than a three masted vessel of the same size: they told us that experience had shewn that when the tonnage exceeds 1,400 or 1,500 tons, the same spread of canvas can be handled with much greater ease on a 4 masted than a 3 masted vessel. Amongst the witnesses who gave evidence to that effect was Mr. Blair, the manager of Messrs. Craig and Company, shipowners, of Glasgow, the pioneers, as we are told, of this class of vessel; he stated that their firm had eight 4 masted ships, of which three were of about the same size as the "Falls of Afton," namely from 1,800 to 1,900 tons, and the other five were from 1,400 to 1,500 tons. Captains Houston and Jamieson also told us that they had commanded vessels of this description, and that in their opinion 29 or 30 hands, including apprentices, would be a sufficient crew for a vessel of the size of the "Falls of Afton," if 4 masted; and one of them said that when in command of a vessel of the size of the "Falls of Afton," he had on his first voyage had a crew of 31 hands, but finding them to be too many, he had reduced them on the second voyage to 30, and that he had found even that number too many, and had consequently on the next voyage reduced them to 29, which he had found quite sufficient. Now, although the Court would be disposed to pay the greatest respect to the opinions of the professional advisers of the Board of Trade on such a point, it is difficult for us to set aside altogether the evidence of gentlemen, who say that they have commanded these 4 masted vessels, and have had personal experience of them; the more so as we have not heard from the professional advisers of the Board of Trade the grounds on which their opinions have been formed. The question, however, is one rather for the assessors than for the Court; and they advise me that, whilst admitting all that has been said as to a 4 masted vessel being more easily handled than a 3 masted vessel of the same tonnage, they are disposed to think, judging from their own experience, and from the evidence in the case, that with only 29 hands in all, of whom three were ordinary seamen, and three were apprentices, who had never before been to sea, and without a boatswain, a most important officer on board such a ship, the "Falls of Afton" was somewhat too lightly manned. Not that they are disposed to say that, manned as she was, she was unseaworthy; but in their opinion it would have been much better if, instead of three ordinary seamen and three apprentices, she had had some more able seamen. Something was said by Mr. Middleton as to the necessity of having a larger number of hands on a first voyage; but the assessors tell me that this is not in accordance with their experience. They say that, whilst there may be some extra duties required of

the men in a new ship owing to the rigging being stiff, and not working well, this is generally more than compensated for by the condition of the spars and rigging in an old ship; and that they never before heard that a greater number of men were required on a first voyage than on any subsequent voyage.

The third question which I propose to consider is "Whether the rigging was in good and proper order when she left Port Glasgow" On this point we have had the evidence of the two Lloyd's surveyors who inspected her during the building, of Mr. McMillan, the owners' superintendent, of the builder's foreman, and of Mr. Watergarth, the manager of the White Cross Wire and Iron Company, by whom the rigging was supplied, and they have all told us that the rigging was first class. In addition to this we were told by Messrs. Stark and Newman that, when they examined her at Madeira, the rigging appeared to them to be in perfectly good order, and only required some trifling repairs before she resumed her voyage to Calcutta. On the other hand we were told by the master and chief officer of the "Falls of Afton" that the rigging was so rotten, and the nuts and bolts so defective, that there was danger of the vessel becoming a complete wreck and of the masts going over the side. The carpenter, however, I may observe, does not support these statements, for according to him there was no more damage to the rigging than might be accounted for by the state of the weather. But let us see on what authority the master's and chief officer's statements rest. On turning to the log book, the first entry where we find any mention of damage to the rigging is under date of the 19th April, where it is said that the inner jib sheet was carried away, splitting the sail, also splitting the foretopmast staysail, and on the same day the outrigger of the mizen topmast cross trees was carried away. On the 20th we are told that the parral of the mizen topsail yard was carried away, and that the main topsail halyards were carried away, as well as the fore topsail sheet, and that the main topmast crosstree outrigger having carried away was sent down on deck. Then on the 21st it is said, "if this " weather continues the ship will be dismasted, as there " is not a nut or a bolt can be depended on," and that the " nuts keep falling out from all directions." The same afternoon, the weather having moderated, the carpenter, we are told, was "employed setting and screwing bolts " and nuts up aloft." From that time we hear no more of any damage to the rigging till the evening of the 23rd, when we are told that the main topsail brace had been carried away, the wire, it is said, "being " rotten." Nothing more occurs until the morning of the 26th, when the "main topsail brace pennant is " carried away," and it is added, "the ship will soon be " a perfect wreck up aloft." After this we hear no more of any damage to the rigging. I have set out in detail the whole of the damage which is said to have been done to the rigging, and which, according to the entries in the log book, was calculated soon to reduce the vessel to "a perfect wreck up aloft," and I am advised by the assessors that the whole amount of the damage reported was, as the carpenter said, no more than might have been expected from the state of the weather. But whatever the damage was, it is clear that before they left her it had all been repaired, for not only does this appear from the evidence of the crew of the "Braziliero," as well as from that of the two officers of the "Alceste," but Messrs. Stark and Newman, whose interest, as the representatives of the underwriters, it would be to see that she did not leave Madeira otherwise than in a thoroughly efficient state, tell us that, with the exception of the six crosstree outriggers, which they found stowed away under the forecandle deck, and of which two only were broken, the rigging was in perfectly good order, and that, having had the two broken outriggers mended, they were all sent up aloft and put in their places. It was said, indeed, by the master that the crew were exhausted by having to set up the rigging and screw up the bolts and nuts continually, but I am told by the assessors that the screwing up the bolts and nuts is a duty which is

always performed by the carpenter, and that as to setting up the rigging, seeing that the vessel was fitted with screws in the place of lanyards, it could have been done by the men in a couple of hours. On the whole it appears to us that there is no ground for saying that the rigging was otherwise than good, or that there was any more damage to the gear aloft than might reasonably have been expected under the circumstances, and than could be and was easily repaired by the crew, and that the statements as to the rigging being rotten, the nuts and bolts coming down in all directions, and the vessel becoming a perfect wreck aloft, and being likely to be dismasted. are, as Mr. Middleton justly observed, exaggerations.

The next question to which I will address myself is, "Whether the cargo was properly stowed?" It seems that the iron sleepers, of which the cargo principally consisted, were all stowed fore and aft, planks being laid athwart ships between the tiers. In the lower hold they were arranged in three steps, the lowest step extending some 30 feet at each end beyond the step above it, which in its turn extended about 40 feet at each end beyond the uppermost step, the top of the cargo in the lower hold rising to within 18 inches or 2 feet of the 'tween decks. In the 'tween decks the iron sleepers were stowed in the same way fore and aft, with planks between the tiers; but here they were in two blocks, one forward, the other aft of the main hatch, each block being in two steps, the lower step extending some 15 feet at each end beyond the upper one, and the whole rising to within 18 inches or 2 feet of the upper deck. In the space between the two blocks, and immediately under the main hatch, was stowed the pig iron and the coal. The coke, it seems, was in the after part of the 'tween decks. The iron sleepers, it seems, besides having planks between the tiers, were chocked off at the side; they were not tommed down from the decks above, and, in the opinion of the assessors, that was not necessary. So far, then, as appears, the cargo was properly and securely stowed, and the only evidence to the contrary is from the master, the chief officer, and the carpenter, who say that when they went below the upper portion of the cargo seemed to them to be swaying, but the movement must have been very trifling, for all that the master could say was that it moved on the top about 2 inches, and he admitted that it was not a matter of any importance. We were also told by Messrs. Stark and Newman that they had very carefully examined the cargo, and although they had, as an additional precaution, ordered some more dunnage wood to be put in the wings, and had tommed it off from the decks above, they considered the stowage to have been perfectly safe, and that she resumed her voyage to Calcutta without its having been found necessary to restow the cargo.

The next question for consideration is, "Whether the pumps were sufficient and in good order?" It seems that she had two pumps, which were worked with a fly wheel, and were capable of throwing 90 tons of water an hour, and as the greatest quantity of water which the vessel made at any time was, as we shall presently see, not more than an inch an hour, it is clear that the pumps, so long as they continued to work, would be amply sufficient to keep the vessel free. Now the first time that we hear of there being anything wrong with the pumps was on the morning of the 28th, the day on which they abandoned her. It was then found that two of the bolts which secured the handle to the crank were bent, but they were easily straightened by the carpenter, and the pumps then worked perfectly well. Some few hours afterwards it was found that one of these same bolts had broken, but on its being mended by the carpenter the pumps worked again quite well, and after that they did not require anything more to be done to them, and we are told that when they left the vessel the pumps were in perfect working order. That this, too, was so is clearly proved by the fact that the crew of the "Braziliero," after they had boarded her, worked the pumps for four hours without finding it

necessary to do any repairs to them, and that it was with these same pumps that she was pumped out by a gang of four men after her arrival at Madeira. There is, therefore, no reason to think that the pumps were not amply sufficient to keep her clear had they been used with sufficient frequency.

The next question to be considered is, "When did the vessel first begin to leak, and what was the cause thereof, and were prompt and proper measures taken to stop the leaks?" On referring to the log book we find that the first time the well seems to have been sounded was on the 17th of April, and we are told that there were then 4 inches of water in it; and on the 19th the same depth is recorded. Seeing, however, that, according to Messrs. Stark and Newman, the pumps sucked at 5 inches, it is clear that up to that time the vessel could hardly have been making any water, even assuming that she was quite dry when she left Port Glasgow. On the morning of the 21st, however, we find that there are 7 inches in the well, and in the evening of the same day it had increased to 12 inches. The next morning it is said that the carpenter went down the pump well to see how much water there was, and came to the conclusion that there were about 8 inches in her. On the following morning, the 23th, they sounded the well, and on finding 12 inches in her, the captain, chief officer, and carpenter went below, and according to the log book they then found "the decks leaking like a shower " bath," and the water "spurting in at a great rate" at the angle iron round the ports, more especially at the main port on the port side. The same afternoon they found 6 feet of water in the fore peak, and it was then that they stood to the eastward with the view of returning to this country; and in the evening we are told that there were 15 inches in the well. It would seem, therefore, to have been during the 22nd and 23rd, when according to the master the gale was at its height, that she began to leak, the vessel at the time making very bad weather, and shipping large quantities of water on her decks. Now that some water did come in through the cargo ports seems to be admitted, for Messrs. Stark and Newman tell us that when they surveyed the vessel at Madeira, the cargo ports were leaking, more especially the main port on the port side, where it is said that the water was coming in pretty lively; but they told us that this was due to the shrinking of the packing, and that if the ports had been screwed up and chinsed from the inside, the leaks would probably have stopped. The captain also told us that the water was pouring in at a defective rivet hole on the fore part of the main port on the port side, but this Messrs. Stark and Newman distinctly deny; they say that the water which was coming in round the port struck against one of the rivet heads, and gave the appearance of the rivet hole leaking, but that they tried all the rivets round the port, and found them all sound. As to the water found that day in the fore peak, the master and mate told us that it appeared to them to be coming in through the bow ports and on each side of the stem; but Messrs. Stark and Newman told us that they carefully examined the stem, and could find no traces of any water having come in there; and that, in their opinion, the principal part of the water which was in the fore peak, must have come in through the hawse holes and the fore scuttle under the topgallant deck. They said that they came to this conclusion from seeing the saturated condition in which the articles in the lower fore-castle were, and which must have been due to water coming in from above, and not from below. They told us that some water no doubt may have come in at the bow ports, but that none came in at the sides of the stem, and that they carefully examined the vessel all over, and could discover no appearance of her having strained in any part. If then the master, instead of merely stopping up the leaks in the ports with grease and tallow, had screwed up and chinsed the ports from the inside, and if he had secured the hawse holes, and seen that the hatch was put over the fore scuttle, it is probable that he would have stopped the vessel leaking in these parts; and this the assessors tell me he ought to have done. As to the water coming in through

the decks like a shower bath, we believe it to be, like the account given by the master and mate of the rigging, the nuts, and the bolts, a pure exaggeration.

The next question to be considered is, "Whether the cock in the fore peak was in good and proper order when the vessel left Port Glasgow, and whether it is probable that any water got into the vessel through it?" The cock here referred to was affixed to the ship's side at the lower end of a pipe, which led up to the deck, and which was required for drawing water to wash the decks forward. The plug, by which the water was turned on and off, was in the form of the frustum of an inverted cone, having a hole through it to allow the water to pass into the pipe when the plug was turned in the proper direction. This plug was worked by a spindle coming out on the main deck under the top gallant forecastle deck; and a quarter turn of the plug was sufficient to turn the water on or off. Screwed on to the lower end of the plug was a nut, which, owing to the form of the ship at this part, came very near to the side, and the object of which was to prevent the plug lifting in its socket. The spindle was made to turn either way, so as to avoid the wear which might be occasioned by turning it always in the same direction; but it was necessary that the nut below should be free, for if not, the spindle would be prevented turning one way, and if turned the other way, the effect would be to unscrew the nut, at the same time lifting the plug in its socket and allowing the water to run down into the vessel. Ultimately, if the nut became completely unscrewed, and fell out of its place, the plug would by its own weight drop down into its socket and stop the flow of water into the ship. Now we were told by Messrs. Stark and Newman that, when they surveyed the vessel at Madeira they found the nut unscrewed, and lying in the limbers, with a small portion of cement adhering to it, and there was an appearance on the side of the ship, where the nut would have been when in position, as though a portion of the head had been embedded in the cement on the ship's side. If this really was the case, we can have no difficulty in understanding how it was that 10 feet of water were found in the fore peak on the morning of the 25th of April. It appears from the log book that on the 24th all the sea cocks were ordered to be closed. And if the carpenter, whose duty it was to attend to the sea cocks, was ignorant of the way in which they worked, and thought that they were to be opened or closed by turning the spindle round a great many times, just as the sluice valve in the collision bulkhead would be, we can understand how the nut may have become unscrewed, and the water get into the vessel. The carpenter on going to the fore cock may have found that it would not turn if moved in one direction, as would be the case if the nut was fixed in the cement, and he might then have thought that the cock was then full open, and that to close it it would be necessary to turn it round and round in the opposite direction, as he would do with the sluice valve. But by so doing he would be simply unscrewing the nut, and at the same time raising the plug in its socket and admitting the water to the fore peak. In that way and in that way only, can we account for the 10 feet of water having been found in the fore peak on the morning of the 25th, for at that time the gale had passed over, and little, if any, water could then have come in, either at the bow ports, the hawse holes, or the fore scuttle; the only way, therefore, in which it could have come in must have been by the sea cock. On the other hand we were told by the foreman plumber and foreman carpenter in Messrs. Russell's building yard, that they had examined this very nut before the vessel left, and that it was then quite free; and we are, therefore, invited to say that it could not have come off in the way suggested, but must have been purposely unscrewed by someone on board the vessel with the view of letting the water into the vessel. But in the first place the mere unscrewing of the nut would not let the water into the vessel; it would require that the nut should be fixed. in order to raise the plug and admit the water; and as soon as the nut was off the plug would by its own weight drop down

into its socket, and there would then be only a little oozing of the water round the plug, such as was seen at Madeira. On the whole we are inclined to think with Messrs. Stark and Newman. that when the vessel left Port Glasgow, the head of the nut must have been held by the cement on the ship's side, and that it is to this that the presence of the 10 feet of water in the fore peak is due. It was said that it would have been better if there had been something to shew when the cock was open, and when it was closed, the only indication being a line cut on the head of the spindle, which, when it was fore and aft shewed that the cock was closed, when athwart ship that it was open. It would no doubt have been well if the carpenter had been clearly instructed before the vessel left as to the proper mode of working these cocks, and in that case the line on the top of the spindle would have been a sufficient indication to him; as it was, non constat that he may have imagined that they worked in the same way as the sluice valve by turning them round and round several times. It seems also that when the master found that there were 10 feet of water in the fore peak, he ordered the sluice valve to be opened, which was quite right, so as to allow the water to run away to the pumps; but in keeping it open from that time, as he seems to have done, when he believed that there was a serious leak in the fore peak, was altogether wrong; it was in fact doing away with all the advantages for which a collision bulkhead is put into a vessel, namely, to confine the water to the fore peak, and prevent its getting into the hold and filling the vessel.

The next question which we have to consider is, "When did the master cut the suction pipe in the after peak, and when was the water turned into the vessel, and was the master justified in so doing?" It was said by Mr. Middleton that the cutting of the suction pipe and the turning on the water into the vessel were not necessarily coincident; the pipe might very well have been cut, but if the water was not turned on, it would not run into the vessel. Now what are the circumstances under which the suction pipe in the after peak is said to have been cut? The master told us that, not being able to find out where the water was coming in, and having examined every part of the ship except the after peak, he ordered the carpenter, there being a quantity of coke stowed over the hatchway, to cut a hole in the floor of the lazarette, and he and the carpenter then went down into the after peak. On getting there, and seeing no appearance of any water, he ordered the carpenter to cut away a portion of the casing, which covered the lower end of the suction pipe in the after peak. This pipe, it seems, was connected with a cock on the ship's side, which stood some 5 feet above the top of the keel, and was worked, like the cock in the fore peak, by a spindle rising to the main deck and terminating under the table in the captain's cabin. The wooden casing was not water tight, so that if the pipe had leaked, the water would have run out at the bottom. Why, then, the master, seeing no water coming from the casing, should have ordered a portion of it to be cut away so as to expose the pipe, is to us inexplicable. Having, however, cut away the casing, he then sent the carpenter up on deck to turn the water into the pipe when it was found that there was a small leak in the pipe, which the captain told us was very trifling, not more than the size of a pin's point. This the carpenter proposed to stop up by binding the pipe with oakum, but the captain said that it was of no consequence, and sent him up to turn the water off. After which they both returned to the deck, and from that time the carpenter tells us that he never again went down into the after peak. The captain, however, tells us that just before finally leaving the ship he went down into the after peak and cut the pipe, his object, he says, being to sink the vessel more quickly, so that she might not be a danger to passing vessels. He admits that he never told any of his officers that he had done so, nor did he tell the British Consul when he went before him to make his protest, and it was only after the "Falls of Afton" had been brought in, and when being examined before the Naval Court at Madeira, after the

other officers had been examined and had stated that they knew nothing about the cutting of the pipe, that the master at length confessed that he had done it. But is it quite certain that he did it, as he says, only just as they were on the point of finally leaving the ship if, indeed, we are to believe the chief mate, it was not possible for him to do it at that time, for he tells us that, for half an hour before they left her, he and the captain were on the quarter deck together, and that the vessel having given two or three heavy rolls, the second mate, the steward, and the able seaman Ferguson got into the boat which was alongside, saying that she was sinking, and shouted out that they would not wait any longer; and that he and the captain then got into the boat, he going first, and being shortly afterwards followed by the master; and it certainly is difficult to see how the captain could have had time to go down into the after peak, cut the pipe, then come up again, and turn the water on, without the chief officer being aware of it; he might no doubt have gone down into the cabin and turned the water on before he followed the mate into the boat, but he could hardly in the time have gone down into the after peak, cut the pipe, come up again, turned the water on, and collected the articles which he seems to have taken with him into the boat. I think, however, that we have in the record of the depth of the water in the well on the successive days sufficient to shew that the suction pipe must have been cut at all events some hours before they finally abandoned the ship. If we look at the log book we shall find that at noon of the 24th there were 15 inches of water in the well, and that on the forenoon of the following day although there were 10 feet in the fore peak there were in the well only 13 inches which on the same evening fell to 12 inches. On the morning of the 26th there are 18 inches in the well, but in the afternoon of that day it had fallen to 17 inches. at which height it stood during the forenoon of the 27th, and in the afternoon of that day and again in the forenoon of the 28th there were only 16 inches; and although the pumps broke down twice that morning and could not be worked we are told for about four hours, there were at noon only 17 inches in the well. After that there was no pumping whilst the crew remained on board, and accordingly we find that from this time the water begins to rise at the rate of about an inch an hour, the depth, according to the carpenter who took the soundings, being 18 inches at 1 p.m., 20 inches at 3 p.m., and 23 at 5 p.m. At 5, however, when the greater part of the crew had left and gone on board the "Forto," the water suddenly ceases to rise, for we are told that the last soundings, which were taken at about 9 p.m., gave only 24 inches, or a rise of 1 inch in the previous four hours. She then remains for about 12 hours without anyone on board, until she is picked up by the "Braziliero," when she is found to have 36 inches of water in her, being again a rise during that time of about an inch an hour. And then as soon as the flow of water from the suction pipe has been stopped, she practically makes no more water. Let us now see how these facts are to be explained. In the first place, from the forenoon of the 24th until noon of the 28th there is practically no rise of water in the vessel, the depth in the well at the former period being 15 inches, and at the latter period 16 inches. The 10 feet of water in the fore peak on the forenoon of the 25th may, as we have already stated, be easily explained by supposing that at that time the water was coming in at the cock in the fore peak; and the rise in the well from 12 inches in the evening of the 25th to 18 inches on the morning of the 26th, may be accounted for by the fact that there was no pumping on the night of the 25th, and that at this time the sluice in the collision bulkhead was open, so that any water that might come into the fore peak would run through into the hold. From the 24th, then, to noon of the 28th, the water remains nearly at the same level, and the same causes which produced the leak at the former period may therefore fairly be assumed to have been acting at the latter period; but whatever those causes may have been, it would seem that the crew were at that time quite capable of keeping the water under, if not of gaining upon it. At noon, however, of the 28th, when they leave off pumping, the

water begins to gain upon the vessel at the rate of about an inch an hour until 5 p.m., when it suddenly ceases; and after they abandoned her the water again rises at the same rate, about one inch an hour. Now we know that from the time they finally abandoned her, until she was picked up by the crew of the "Braziliero," the after suction pipe was open, and there was no pumping going on, and during that time she made water at the rate of about an inch an hour. Is it not fair therefore to conclude that from noon to 5, when there was no pumping, and she was also making an inch an hour, the same conditions must have existed, namely, that the suction pipe must have been open? We have also the fact that after the suction pipe had been stopped up by the crew of the "Braziliero," she made no more water, so that it might not unnaturally be inferred that, whatever water came in between noon and 5 p.m., must have come in through the suction pipe.

But how are we to explain the fact that the water ceased to rise in the vessel from 5 to about 9 p.m.? In one way and in one way only, namely, by the fact that during those hours the water was turned off and not allowed to run into the pipe; if so, this must have been done by some one on board the vessel, and if by any one then by the captain. It appears to us that what occurred was this: "At some time between noon of the 27th, when the wooden casing was cut away, and noon of the 28th the captain went down into the after peak and cut the suction pipe; and having done so he would have it in his power to turn the water on or off just as it suited his purpose, the spindle coming up just under the table in his cabin. Now, we know that at noon the the "Forto" was in sight and was bearing down towards them; and if the captain had then made up his mind to abandon his vessel and to go on board the "Forto," nothing could have been easier for him than to turn the water on. At 5, when the greater part of the crew left and went on board the "Forto," and when the master was induced by the chief officer, somewhat as it would appear against his will, to remain by the ship during the night, it may well be that, not knowing how quickly the water would come in upon them, or how much water the vessel would carry, he may have thought it better to turn off the water, which would account for its not rising in the vessel during the next 4 or 5 hours. After this, however, and some short time before he left, and when he had finally determined to abandon her, he would again turn on the water, which would account for the increase between that time and when she was picked up by the "Braziliero." In our opinion the evidence is very strong that the suction pipe must have been cut before noon of the 28th, and the water then turned on; that at 5 p.m. it was turned off, and turned on again shortly before they finally abandoned her at about 10 p.m.; that the master's object in cutting this pipe was to sink the vessel is not denied; and as in our opinion he did it, not at the moment of his leaving his ship, but in contemplation of abandoning her, there can be no justification whatever for his conduct.

These being the conclusions at which we have arrived, it only remains for us to say, "Whether, in our opinion, the master was justified in ordering the crew to leave the vessel, and whether she was wilfully or prematurely abandoned?" So far as we are able to judge, the vessel, when she was abandoned, was in good and seaworthy condition, her rigging was repaired and in good order, the pumps were working well, and the only water which she was making was through the suction pipe in the after peak, which the master admits that he had himself cut. The Island of Madeira lay some 250 miles to the south of them, they had a steady breeze from the north, and during the preceding 24 hours they had been making from 5 to 8 knots an hour; so that, had it been necessary, she would have had no difficulty in reaching a port of safety. With these facts before us, it appears to us that there is no possible excuse for this master abandoning his vessel. In our opinion the abandonment was not only premature, but wilful. It was said that he had no motive for throwing away his ship; if it



were necessary we might, perhaps, find a motive for his conduct, but that we are not called upon to do. Seeing the very grave character of the offence of which he has been guilty, we think that he is unfit any longer to command a British vessel, and we shall therefore cancel his certificate.

The Court was not asked to make any order as to costs.

H. C. ROTHERY, Wreck Commissioner.

We concur.

H. C. KENNEDY, ALFRED PARISH, W. BRAHAM ROBINSON,

Assessors.

Chief Constructor, Royal Navy, Retired.