

"LISMORE" INQUIRY.

Witnesses and Stowage of Cargo.

From Our Own Correspondent

DUBLIN, Tuesday.

The inquiry into the loss of the City of Cork Steam Packet Company's steamer *Lismore* off the Hook Head, County Wexford, on July 10, was resumed in Dublin Castle this morning by Mr. G. B. Cussen, district justice, assisted by Captain J. H. Webb and Captain Louis Brady, master mariners, Mr. F. G. Miller, marine engineer, and Mr. W. J. Mares, naval architect.

Mr. E. A. Swayne, K.C., and Mr. Costello (instructed by the Chief State Solicitor) appeared for the Department of Industry and Commerce; Mr. A. K. Overend, K.C. (instructed by Messrs. D. & T. Fitzgerald) appeared for the owners.

Mr. DANIEL FREE, naval architect of the Ardrossan Shipbuilding Company, builders of the *Lismore*, continued his evidence, and, replying to Mr. Swayne, said that in any opinion he would give, it should be borne in mind that he had to assume certain things. He had to assume that there were cattle in the forehold weighing about 35 tons. There was no indication there regarding the centre of the weight. It was a mass made up of various sizes and various weights. Consequently, some heavy weights might be at the bottom and some at the top. He had to assume for the purposes of making an estimate that the centre of the weight was in the centre of the mass. In the after hold the cargo consisted of certain items, but he could not tell as to its disposition, and had to assume the centre of the mass. The same thing applied to the upper 'tween deck, where there were 35 tons of cargo.

CAUSE OF THE LIST.

On these assumptions he had arrived at a figure which could only be treated as approximate, that was 6 in. metacentric height. He explained that in the *Lismore* there was a water tank by means of which any list up to 4 deg. could be rectified by pumping out the water from the port or starboard side.

Mr. SWAYNE: Assuming the evidence was accurate, could the list be attributed to anything but the loading?—I cannot say what contributed to the list without knowing the facts. It does not follow, because a vessel has an initial list, that she is not quite stable. Given a metacentric height of 6 in. the vessel would require careful handling and seamanship.

Replying to Mr. Overend, WITNESS said that the builders and designers allowed a margin for safety. A fall of three inches of snow, for instance, might mean that ten tons of it would fall on the ship, and a greater weight would be required below to counteract it. These were some of the conditions that builders and designers had to take into account in building a vessel. Answering Mr. Horgan WITNESS said the transverse distribution of cargo would be likely to cause the list.

Captain THOMAS HERDMAN, master of the steamer *Kenmare*, one of the City of Cork Steam Packet Company's vessels, gave evidence that he saw the *Lismore* leaving Cork on July 10, and she had a very slight list to port. The list was less than one degree, and it would not be noticeable by anyone except a seaman, and he would not have noticed it only that the *Lismore* had been lying in the direct line with his vessel at the quay side.

SUBMERGED WRECKAGE THEORY.

Captain THOMAS M. McFARLANE, master of the company's steamship *Denbigh Coast*, stated that he did not notice any list on the *Lismore* on July 10, when he was acting as chief officer of the *Kenmare*, when the vessel left the quay. He noticed that she had no roll.

Captain JOHN HUMPHREYS, marine superintendent to the owners of the *Lismore*, gave evidence that the vessel on her trial trip behaved splendidly. Asked if he had formed any opinion as to the cause of the foundering of the vessel, WITNESS replied that he believed the *Lismore* struck some wreckage on her way after leaving Roches Point. "I know," he continued, "that there are

several submerged wrecks off the South of Ireland coast, and my theory is that she must have struck a derrick which was found 24 hours after the disaster. This derrick was probably made fast to the mast of one of the submerged wrecks by guy or rope, and the *Lismore* struck it and sent it adrift.

Asked as to the depth of water at the position where the *Lismore* went down, WITNESS said that it was from 29 to 30 fathoms.

Mr. A. WALL, naval architect, formerly chief naval architect to Messrs. Cammell Laird & Co., Birkenhead, and now in private practice, in his evidence said that on the question of the metacentric height of 6 in. there was no reason why the vessel should not have weathered a moderate or calm sea. As to the list which had been referred to, he saw two possibilities. If the cargo was not properly secured against shifting, then that part of it which was not secured would go to the lower side and increase the list, which might go on increasing to such an extent that the water would flow in. If the water gained access to the ship, with the list that she already had, it would cause her to topple over. A vessel like the *Lismore* should have 10 in. to 12 in. of a metacentric height to meet all possible contingencies.

CARGO STOWAGE AND STABILITY.

Mr. SWAYNE: Assuming the cargo was stowed in the way shown and that the vessel had a list when leaving, to what extent did that interfere with her stability?—If she was already over to port she has got a start that way.

If she has that list, the tendency, of course, is for everything on board to go on the lower side?—Yes, if she has got a natural list to port and if it is a small angle, it is not serious, but, if it is one of three or four degrees everything has a tendency to go on to the low side. If a ship is rolling at sea everything that can will move to and finish up on the low side. The weight will gradually accumulate on that side and increase the list. This might go on increasing to such an extent that presently some part of the ship becomes open to the sea. The water increases the list until she capsizes.

Answering further questions, WITNESS said that the increase of the list might be due to shifting cargo or to access of water.

Mr. THOMAS J. HEGARTY, of the Ship Survey Department, Ministry of Industry and Commerce, said that in his opinion the *Lismore* was seaworthy but might be affected by heavy seas. Evidently she was not safe if exposed to varying conditions with a metacentric height of six inches. The vessel had cargo in exempted spaces and also above these spaces, which was improper. The poop and forecabin, where cargo was placed, were not intended for cargo. The list to port would be due to improper distribution of cargo.

Cross-examined by Mr. Overend, WITNESS said that many vessels had capsized owing to being improperly loaded. These included the *Fishguard*, the *Rodine*, the *Cato*, and the *Thames*. He did not agree that it was proper to put cargo on the forecabin or the poop.

Captain CLARKE, Chief Surveyor in the Department of Industry and Commerce, said that the *Lismore* was properly constructed and seaworthy if properly loaded. He was of opinion that there was not proper stowage of the cargo when the vessel left Cork. He did not think that the cattle should be placed in the same hold with other cargo without a proper division from wing to wing. It was not good stowage. In his opinion a terrible stampede took place among cattle when cargo broke adrift and got in among them. He did not think that any sailor would agree that it was proper to place cargo on the forecabin head, which was built for the purpose of buoyancy and not for purposes of cargo. It was also improper to have cargo on the poop, but not to the same extent as if placed in the forecabin. In his opinion four able seamen were not sufficient to work the ship from a navigational point of view and he thought the *Lismore* should have had more seamen.

Mr. IDLE, surveyor to the Commissioners of Irish Lights, replying to Mr. Costello, said that in his opinion the weights on the ship moving further to the port side, would increase any initial list, and he believed that was the cause of the vessel ultimately capsizing.

This closed the evidence and the inquiry was adjourned till Wednesday, Sept. 3.

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