

## LOSS OF THE "RADYR"

### Question of Hatch Covers

### INQUIRY EXPECTED TO CONCLUDE TO-DAY

The inquiry into the loss of the Cardiff steamer *Radyr*, which foundered with all hands on Dec. 7 last off Hartland Point, was resumed at the Law Courts, Cardiff, yesterday. Mr. Hugh Jones, K.C. (Deputy Stipendiary) again presided, being assisted by Captain William B. Blackin, Captain F. J. Thompson and Mr. T. H. Blaker as Assessors. Mr. Allen Pratt (Messrs. Vachell & Co.) represented the Board of Trade, and Mr. A. M. Ingledew (Messrs. Ingledew & Sons) represented the owners of the vessel, the Rupert Phillips Steamship Company, Ltd.

Mr. HENRY EDWARD STEEL, a ship surveyor on the staff of the Principal Ship Surveyor for the Board of Trade, continued his evidence. He gave details regarding the shifting beams of the *Radyr* and those of her sister ships, of which there were 21 built.

Replying to Mr. Pratt, Witness said that the beams which were fitted to the *Radyr*, which was built in 1918, as compared with Lloyd's requirements to-day, were stronger vertically, but the flanges were of less width. At the time the ship was constructed there were no Lloyd's rules with regard to shifting beams of that size.

Mr. PRATT: If a deflection took place in the whole of the beams, what effect would that have upon the strength of the hatch covers?—WITNESS: Practically none.

Supposing one or more of the shifting beams was deflected, what effect would that have upon the strength of the covers?—The covers would be likely to break in the middle.

The likelihood of breaking would come from the force applied on top?—Yes.

Such as would be caused by the sea breaking on the hatches?—Yes; of course, it would be necessary for the middle beams to deflect to the extent of several inches to cause a break at the centre by a blow from the sea.

Asked if he could give the pressure exerted on rocks by waves, Witness replied that the pressure of the sea round the coastal rocks had been recorded as high as three and a half tons per square foot. With a ship that was floating on the water one would not expect the pressure of the sea to be so great. He had calculated that where some covers were broken the weight of the sea must have been at least one ton per square foot.

Mr. PRATT: Having regard to what you have said, can you give the Court any indication of the force of the blow which fractured the cover marked "Y"?—WITNESS: It would be only a general indication. The blow would probably be equal to a static blow of 1.7 ton per square foot.

Mr. PRATT: That indicates a pretty severe blow?—I think in any case the blow must have been severe.

#### THICKNESS OF TIMBER

What is the requirement for the thickness of hatch covers?—For an unsupported spar not exceeding 4 ft. 6 in., that would be the distance between the flanges and the beams, it is two and a half inches.

What was the thickness of the timbers you saw?—I saw nothing less than two and seven-eighths, and in some cases three inches.

They were half an inch above the standard, and I suppose it follows that if they had only been of standard thickness they would have been much less strong and efficient?—Yes, that follows.

Replying to further questions, witness said there was no standard for timber of which the covers were made. The only requirement was that covers should be solid and not less than two and a half inches in thickness. In selecting timber for hatch covers the absence of knots was one of the things that should be looked for, and also that the grain was regular. It would be easier to detect the presence of knots before the timber was made up into hatches. He thought it more important to have efficient hatch covers in the case of self-trimmers than in the case of non-self-trimmers.

Mr. PRATT: I think it is recognised that so far as the deck area is concerned the hatch covering is one of the weakest parts of the deck, and it follows that the greater the area of vulnerability the more effective should be the precautions taken to cover the same?—Yes.

#### A FAST SHIP

Mr. CYRIL G. REES, of Bangor Street, Cardiff, who served as an A.B. on board the *Radyr* from May to September of last year, was the next witness. He said he joined the *Radyr* on May 1, 1929, and remained aboard until Sept. 3. Generally speaking, the vessel was a good vessel, while her speed was remarkable for a vessel of her size. She did not ship much water, mostly spray, and did not roll out of the ordinary. The vessel took coal to Bordeaux and brought pitwood to the Bristol Channel. Witness proceeded to give particulars of the methods of loading, and said the shifting beams were sometimes removed, when shipping large coal, in order that it should not be broken. The No. 4 hold was generally filled three-quarters of the way up. He did not think any trimming was done in this hold, the trimmers generally trying to avoid getting into the hold. No. 4 was generally completed before No. 1. Witness was unable to recall any instance where the vessel had a list after No. 4 had been loaded and before No. 1 had been started. He could not recall any occasion when trimmers went down into No. 4 hold and knocked the top off the coal, but it might have been done without his knowledge. He identified some of the hatch covers produced in Court as being aboard the *Radyr* when he was there.

Describing the method of putting on the hatch covers, Witness said they were each covered with three tarpaulins, these being secured with wedges, battens and wire lashings consisting of two pieces of wire, one end was secured with a bottom screw and the other by a shackle. Owing to the distortion caused by the pressure of coal on the shifting beams they occasionally experienced trouble in replacing the hatch covers of No. 2 hold in particular, and crowbars and hammers were used to prise them back.

When that failed, a portion of from half an inch to an inch was sawn off the hatch covers to make them fit.

Mr. RUPERT PHILLIPS, of the Rupert Phillips Steamship Company, Ltd., was next called, and, replying to the Court, said he had no abstracts of the logs in his possession. He understood they were all kept aboard the ship. No written instructions were ever given to the captain, who was simply told verbally where he had to proceed. He never gave any instructions with regard to trimming. What happened was that the charterers ascertained the holds, drew up a plan of what had to go into each hold, and that plan was submitted to the ship's master, who had full discretion to approve or amend the plan. Nothing had ever been brought to his knowledge with regard to the beams being left in during loading, nor of any difficulty with the hatch covers as described by the previous witness. It was a matter for his foreman, but if there was any complaint of any kind he would have expected it to be brought to his knowledge. The *Radyr* was an exceptionally fast boat for a tramp steamer. The usual time for a ship from Cardiff to Bordeaux was five tides, about 60 hours. His vessel had done it in four tides.

ERNEST PRICE, foreman shipwright at the Mount Stuart Dry Docks, Ltd., Cardiff, was questioned with regard to the class of wood from which the hatch covers were made. He said he selected the timber and an official order was afterwards given. He had nothing to do with the price, but selected the timber which he considered most suitable for the job. He considered Grade 4 admirably suitable. Third grade was of better appearance but it did not follow that it was any more suitable.

The DEPUTY STIPENDIARY: What would your employers say if you selected grade three instead of four?—WITNESS: My instructions always are to do the job efficiently.

Mr. PRATT intimated that that concluded the evidence, and in reply to the Stipendiary said he saw no difficulty about concluding the inquiry this afternoon. The Court then adjourned until to-day.