

APPENDIX No. 21.

THE CAUSE OF SINKING OF S.S. CUMBERLAND.

[*Extracts from the Report of Major H. E. Jones, Investigation Branch of the Attorney-General's Department of the Commonwealth.*]

"We were fortunate in obtaining a piece of plate which was blown out of the ship in No. 1 hold, and which was brought to Sydney on the tug which assisted in the salvaging operations. . . . The portion of the lower plate referred to . . . was made the subject of a very close examination by Sir Thomas Lyle, F.R.S., formerly Professor of Natural Philosophy at the University of Melbourne, and W. H. Warren, Professor of Engineering at the University of Sydney. . . . After consideration of the evidence obtained, the experts were of opinion that the explosion was from without, the reasons for this conclusion being as follows:

"The explosion occurred when all the officers except the officer on the bridge were at breakfast or indoors, and when very few of the crew were on deck. There does not seem to have been any upward spout of water from outside the ship, only an uprush of smoke; water and yellowish smoke with an acrid smell issued from one of the sounding tubes of No. 1 ballast tank. . . .

"The explosion was one of enormous power. To produce the effects described above, a minimum charge of 150 lb. and probably one of 200 lb. of high explosive would be necessary. It is doubtful whether a charge of 150 lb. of high explosive exploded 17 feet under water would eject a column of water into the air. If anything like 150 lb. or even 100 lb. of high explosive had been used inside the ship it would have been placed so that on exploding it would have made the hole in the side of the ship where the actual hole was found. This location would have been in No. 1 lower hold among the beef and in the neighbourhood of the centre of the actual hole. Such a quantity of high explosive exploding at this place would probably have damaged considerably the deck over No. 1 hold and the hatches. There is doubt, however, that these were uninjured.

"A large area of the shell of the ship round the actual hole was pressed or dented in. It is inconceivable that such a condition could be produced by anything exploding within the vessel.

"The paint over a large area of the ship's surface in the neighbourhood of the hole had disappeared. This is easy to account for if the explosion occurred outside, and very difficult to account for if the explosion occurred inside.

"It has been proved that the greater part of the smashed plates were turned inwards round the edges of the hole. This is sufficient evidence that the explosion which caused the damage occurred outside the vessel, for if the explosion had been from the inside where there was reasonable tamping, such as frozen meat afforded, none of the plates would have been turned inwards. . . .

"That this theory is reasonably correct is verified by means of the large strip already spoken of. . . . We have conclusive evidence that *before the frames and plates of the ship collapsed, an enormous*

pressure acted on the plates from outside inwards. It may, therefore, be concluded from this alone, apart from any other evidence, that the explosion which caused the loss of the ship was from outside inwards. . . .

"If there was an explosive or infernal machine in No. 1 lower hold, it must have been placed there while the ship was at Bowen, Queensland. In our opinion, the evidence was conclusive that there was no communication possible with that hold after the ship left Bowen, unless that afforded by the temperature sounding tubes. The ventilators were insulated properly with sawdust and thus stopped up, and were correct at the time of explosion, as the sawdust was blown out of them. The temperature sounding tubes reached only to the top, or a little below the top of the hole, and the temperature was taken by one or other of the freezing engineers every four hours. Not one single suspicious circumstance was disclosed at the inquiry or as a result of investigations in regard to the conduct of any member of the crew.

"Twenty-two days elapsed between the time the hatches were closed on No. 1 hold at Bowen and the time of the explosion, and although it is not an impossibility to have a timing device for exploding to run twenty-two days before acting, it is highly improbable that one would be constructed to run for such a long time before operating. . . .

"Bowen is a small community, and the most astute and capable detectives available have not been able to discover a single suspicious circumstance about any of the wharf labourers who were employed in the loading of No. 1 hold. . . .

"The whole of the evidence strongly supports the theory that the explosion was external. It was stated in a report of the Department of the Navy that it would be impossible for a fixed mine to have been placed in a position where the *Cumberland* met with disaster owing to the depth of water (about 70 fathoms), but as the normal position of fixed mines from the surface is dependent upon the length of mooring cable, the effective placing of mines appears to be well within the limits of possibility. The result of the investigations showed conclusively that a mine was responsible for the damage. . . ."