"A. Yes, to the angle of inclination. That is the only reason I can see for it.

"Q. How much of an angle did the skids have?
"A. About forty-five.

"Q. You don't think that is a sufficient angle?
"A. Oh no.

"Q. What type of rafts did you have?
"A. Regular standard rafts.

"Q. You don't know the trade name of these rafts?
"A. No."

The Engineers recommended that the safety valve gags should be proved to be usable from time to time and kept handy. It was also recommended that life rafts should be launched occasionally as a practice drill.

It was also recommended that life rafts should never be stripped of rations and water.

OHIOAN (May 8, 1942)

Nos. 3 and 4 lifeboats were carried swung out, and when the torpedo struck the vessel on the starboard side at No. 4 hatch, just aft of the engine room, they were shattered by the blast. An attempt was made to launch No. 1 boat with 10 men in it, and while endeavoring to aid other men to disembark the stern of No. 1 boat was held in too close to the ship's side and the bow swung off, rolling the boat under the water and swamping it. The boat was swamped because the Deck Engineer took a turn with a line from the vessel around the after thwart in the lifeboat. This held the boat's stern toward the ship and sheered the bow away, swamping it by the headway of the vessel. The vessel at this time had headway of approximately 3 miles an hour. The Chief Officer cut the falls of No. 2 lifeboat, thinking the boat would float off the chocks as the ship submerged, but it did not do so.

Those of the crew that were saved (22 out of 37) were saved by rafts. There were two life rafts on top of the engine room, apparently all regulation type, and four rafts, constructed on the ship from empty oil drums, each raft constructed with four drums.

The ship apparently went down in 1½ minutes from the time she was torpedoed.

Master stated that there were no defects in the equipment or life-saving apparatus.

Communications between the bridge and the engine room were apparently disrupted when the torpedo struck.

Ensign Reed:

"Q. Suppose you were permitted to have watches of four hours off and four hours on, would that furnish the additional lookouts?
"A. Yes.

"Q. Do you feel that the men would be willing to do that?
"A. No, sir.

"Q. Well, do you feel the master of the vessel could make them work that if you felt the danger or--
"A. Well, I may but when I get in port I would have to stand lots from the company and the inspectors and everybody else will be ungrateful, because the men were allowed to work only so many hours, and they are not authorized to work on any other account. Of course they can't refuse to work on the ship at sea if it is for the safety of the ship. That is the regulation we run under.

(Captain Lie):

"Q. Then the lookouts, extra lookouts you had would be a safety measure in time of war?
"A. I believe it would be a safety measure. However, I don't believe this submarine was showing above the water this particular time."

Chief Officer made the following recommendations:

"Q. If you have any suggestions or recommendations will you kindly make them?
"A. On the question of life lines, a vessel sinking at that speed has absolutely no chance to get a lifeboat out.

"Q. And your recommendation is to have lots of life lines on the ship?
"A. Yes, in the rigging.

"Q. In this particular case you were saved by the rafts that were stowed on the after deck?
"A. Up on the poop. Also to have sufficient life rafts to take care of the crew, and to have them placed in such a position that they would become free of the vessel as she goes down, without having to be released.

"Q. Where they would float free?
"A. Yes, no chance of becoming fouled. That is my recommendations to have sufficient life rafts to take care of the men and these life rafts be placed in a position where they would become free of the vessel when she goes down, without having to be released.

"Q. In other words to have them float free without having to be released?
"A. Yes.

"Q. Do you make that a general recommendation on any type of ship, any type of freight ship?
"A. I'm sure it would cover all ships."

"Q. Do you think No. 3 and 4 boats if not left in the chocks would have been damaged?
"A. I think so. No. 1 and 2 boat were in perfect condition. Maybe their having been placed closely together might have something to do with it.

"Q. Do you think that boats should be left in the chocks?
"A. Yes. We have gripes aboard the boat. All you have to do is put one up, unless you have swinging davits. We had screw type davits.

"Q. You had screw type davits?
"A. Yes."

Second Assistant Engineer made the following recommendation:

"I have something to say in regard to the boat davits.

"Q. Well, let's hear it.
"A. Supposing on the boat davits on the middle ends, the boats are one in back of the other, they should be placed further apart on account of the handle. If both boats on one side have to be dropped at the same time the men would not have a chance to unwind nearly as fast because of the handles. When they come over the handles would naturally crack your hands on each handle. When they---you can't turn both at the same time unless you turn in time, one at a time.

"Q. That is the gear, in swinging the boats out?
"A. Yes. And the handles of these boat davits should be some sort of a cover, like a swivel for when you crank, a man's hand would automatically slip, and any man would turn it loose when it gets all burned out, the palm of your hand, the skin will get out.

"Q. All right, anything further?
"A. Just that on the handles to have some sort of a cover like a pipe over the top of the handle that you turn in your hand.

"Q. Like a sleeve?
"A. Yes, something you could use so that the skin will not come off your hand."

Chief Engineer's recommendations were in line with those of the Chief Officer in regard to the lifeboats being swung in and the life rafts left free to float.

Chief Engineer was of the opinion that the engines were stopped by the torpedo explosion.