having an oil-auxiliary is no guarantee that the thing is right?—From the mechanical education certificated engineers have, they have a better chance of finding out defects and running and maintaining the efficiency of an engine.

63. I ask you, Is the fact of a certificated engineer being on board, such as the regulations

impose, any guarantee of the safety of the vessel?—Yes, certainly.

64. And yet he may not be able to start or stop the engine?—Nor were any of the present drivers able to start these oil-engines at first. You wind up a clock, and it goes; but if anything goes wrong you have to get an expert to put it right.

65. Do you want a certificated engineer to drive clocks?—No.

66. You say the "necessities of trade have involved the increase of vessels, not the auxiliary aid of an oil-engine"?—I have no doubt it has.

67. How do you arrive at that conclusion?—By the increase of settlement in Auckland.

68. What has caused this increase of settlement?—The policy of the present Government. 69. How do you know there has been an increase of settlement in the North of Auckland?— I read the statistics and reports.

70. That is only book-knowledge?—We get the experience of others in books.

71. You maintain that it is not the assistance oil-engines have given to vessels that has increased it?—I have no doubt they have, to a certain extent.

72. Have you been North of Auckland?—Yes.

73. How far?—Mangonui.

74. Have you been in Awanui?—No.75. Have you been in Hohoura?—No.

76. In Parengarenga?—No.

77. In clause 2 of your report you say, in reference to clause 2 of the petition, "This is not true, as instance a new vessel for Whakatane trade, built at Whangaroa, which was to be driven by oil-engines, but the owners decided in favour of steam." I dare say you have heard the expression made use of that an exception only proves the rule?—If it had been such a good thing they would have put the oil-engines in their vessel.

78. Do you know of any other instance, either with the Northern Steamship Company or any other company, where oil-engines were put in and taken out again?—No; but the Wanganui

vessel was not a success.

79. The Chairman.] What is her name?—The "Thistle." 80. Mr. Houston.] You say, "Where steam had the monopoly and where auxiliary-powered vessels started to compete in trade, no doubt there would be cutting rates, but this is also found where steam-vessels only are employed." Are you aware that the Northern Steamship

Company has made an objection to the use of these oil-engines in sailing-vessels?—No.

81. Well, are you not aware that vessels which use these oil-engines, and which were formerly sailers, can now go up rivers, estuaries, and small bays that steamers could not go into?

-No, I do not think so.

82. You cannot get steamers to go up these small rivers?—It is not a matter of the shallowness of the vessel; it is a matter of construction of the vessel. I have explained Thornycroft's stern for light draft, as used in Anderson's Bay ferry-boat, Dunedin, going twelve knots and drawing 1ft. 6 in.

83. Are you aware that vessels are now going to places which were formerly not visited by steamers?—I do not know.

84. Why did you make this statement: "Where steam had the monopoly, and where auxiliary-powered vessels started to compete in trade, no doubt there would be cutting rates, but this is also found where steam-vessels only are employed, and that is not at all peculiar to the trades only where auxiliary schooners are employed. Where land and means of communication are good, settlement will necessarily follow." The latter part of that statement is evidently gratuitous, because it has nothing to do with either steam or oil. Are you not aware that it depends upon the means of getting into bays and harbours how settlement in the back-country progresses?—I have no doubt it does, but there must be some inducement to settle. If the land is good, and settlement offers inducements to the public to invest their money and energy, of course they will go there, and they will soon petition the Government for communication, and if there is anything in a good grumble, it will stick.

85. Clause 4 of the petition says, "That the use of the oil-engines in launches has lately been adopted to a great extent, and has been found of great service and benefit, both for purposes of pleasure and for shipping business." You admit that, but you say the same applies to steam-launches. You should have confined your remarks to these oil-engines?—We have to

consider both.

86. In answer to Clause 5 of the petition, you say, "I do not think they would decrease the cost, as an oil-engine is about four times more expensive as a steam-engine, and no safer." I ask you to give a straightforward answer to that—whether you consider that statement correct, that an oil-engine costs four times as much as a steam-engine?-It depends upon the size. Above fifty-horse power it would perhaps be four times, but up to fifty, perhaps only twice.

87. Mr. Crowther.] Can you quote the price of a fifty-horse-power engine?—I have not got the figures here. About £500.

88. The Chairman.] Do you know the "Huia" schooner?—Yes. 89. What power has she?—About forty-five or fifty.

90. What would be the cost of a forty-five-horse-power steam-engine?—Perhaps £100 to £150 for the engine itself, without the boiler.

91. We want the estimate with the boiler; the machinery to drive the vessel?—About £250 for everything.