- 82. Mr. Williams.] Are you sure that is entirely so—is there not a training wall there ?—I was going to say that the last article I read about Liverpool was that they were contemplating the construction of works with the view of guiding the current.
- 83. Mr. Weston. When you speak of hundreds of thousands of pounds, what depth of water are you aiming at?—Just the natural depth obtainable by the tidal scour available. What that would be it is impossible to say. I do not suppose it would average much over 10 ft. or 12 ft.
- 84. You mean to say it would be impossible, in the case of the Manawatu, to get these results that they have got, for instance, in the Clyde and at Liverpool, by the expenditure of hundreds of thousands of pounds ?—On dredging?
- 85. I suppose your scheme would include dredging ?-No, because the trade of the port would not warrant it.
- 86. You say you want to have training-walls pure and simple, assisted by the natural scour?— Yes.

87. And you do not rely on dredging at all ?—No.

88. Supposing there was a dredge of the capacity of the "Thomas King" continuously at work there, would it improve the channel ?—I do not think a boat like the "Thomas King" would have any effect in improvement of the port.

89. The "Thomas King" removes from 100,000 to 130,000 tons of silt a year ?—Yes.

- 90. And you do not think that the constant removal, year in and year out, of 100,000 tons of silt would have any effect on that bar ?—No.
- 91. Or on the channel ?-It may have in increasing the depth of the channel, but you have to consider where you are going to dispose of the material with a boat like the "Thomas King."
- 92. Mr. Williams.] It is a drag suction dredge which is capable of pumping the material ashore, as Mr. Howarth describes. He has only referred to the "Thomas King" as being of that size and capacity ?-The "Thomas King" was not built as a dredge at all. She is only a makeshift.
- 93. Mr. Weston.] Do you consider that a dredge with a capacity of 100,000 or 150,000 tons a year would have any effect ?—I think it would have some effect, if long continued, on the channel.
- 94. If we are right in assuming that the shoal is from a half to three-quarters of a mile in the channel, do you mean to say that would not dredge it ?—I should have my doubts.
- 95. You are totally opposed to the scheme of dredging altogether—you think it is not the proper method of dealing with this problem ?—No, not exactly. What I say is that dredging would not be an economical method of dealing with it in the absence of proper training-walls.
- 96. But you have told us that if you had no training-walls through which you dredge you would get no result. That is what I understood you to say—am I right in that ?—You would not get any permanent result.
- 97. What do you mean by that ?—Supposing you dredged the top of the channel right down, you would merely make a place for the river to deposit the silt in instead of sending it out to sea, and the probability would be that the first big flood would fill it right up again.

98. It would be loose silt ?—Yes, and the more difficult to handle on that account.

- 99. And would not be so hard to shift as the original deposit that had been there for years?---It may be more difficult to shift.
- 100. Therefore you turn the suction dredge down in regard to that harbour ?---Well, it is rather difficult to answer a question of this description unless we have some concrete example before us of what your intentions are.
- 101. Mr. Howarth says you cannot afford to go in for retaining-walls—that is too expensive. I suggested a drag suction dredge, and he says, "I think that will do the work, give you a proper channel on the bar, and clear the channel of the river of shoals." That is his report ?—Well, I do not think it would have that effect.
- 102. I suppose Mr. Howarth, owing to his experience in the Wanganui River, would have a fair idea as to what can be done with suction dredges?—If Mr. Howarth is basing his opinion on his experience on the Wanganui River, he is basing it entirely on a harbour where works have been carried out which I say are unnecessary at Foxton.

103. But dredging has been done at Wanganui ?—Yes.

- 104. But is there not a question as to whether some of the training-walls was a wise expenditure ?—I do not think so.
- 105. You gave a report in 1911. Your evidence does not seem to fit in with that report. say, "Owing to the length and width of river to be dealt with between Foxton and the bar, it will not be possible, as Mr. Howarth mentioned, to construct works of a permanent character for confining the river. The alternative must be dredging as described. It may be possible to purchase a dredge for the price mentioned, and carry out the dredging in the same time and at the annual cost, but I am afraid Mr. Howarth is a little too sanguine. Owing to the immense quantity of sand to be dealt with, it will not be possible on removing any from the channel to convey it clear of the river. best course, therefore, and practically the only one which can be adopted, is to lift it from the part of the channel required for navigation and deposit it a short distance on either side by means of a floating pipe. It is almost impossible to say what the annual cost of the dredging would amount to, owing to the changes in the channel which occur with every flood. I think, however, that it will cost more than estimated." You do not turn down there the system of dredging by a suction dredge, do you ?-No; but what I have said before, I think, has been in conformity with the questions asked me. This is rather a difficult matter. The idea was to maintain a sufficient channel free of sandbanks for the purpose of navigation without doing any other work. That can be done by employing sufficient dredging-power.

  106. You adhere to what you said in 1911—you do not want to qualify this report at all ?—No. 107. Would you sign it again ?—Yes.