

Mr. O'Connor.
14th June, 1882.

103. *The Chairman.*] That is immediate results?—Yes; I have no doubt that with this expenditure of half a million, one could produce permanently a very large improvement in the harbour, and I have no doubt that the depth Sir John Coode mentions would then be obtained—23 feet, I think it is, at spring tides. But unless the works are carried out to the point which Sir John Coode indicates, I really doubt if you would get any very great improvement in the results on the bar.

104. *Mr. Wright.*] You could not anticipate half the benefit from spending half the amount?—No. The further you go out the less you render the thing liable to change, by getting beyond the limits of the shifting channel.

105. *The Chairman.*] The department in the meantime is building a half-tide wall; what is that costing per chain?—I cannot tell at the moment, I could get it; but that is no guide, because we are not in the sea at all yet.

106. What is the character of the overflow channel about four miles up from Westport, where the Buller overflows into the Orawaiti?—The Buller at that place takes a long bend—a long horse-shoe bend. At the apex of this it is inclined to break through into the Orawaiti Valley, and find a way to sea by a short cut. There were two ways proposed to obviate this—one was to block across the depression leading to the Orawaiti, and the other was to cut a relief channel at the base of the bend. Sir John Coode represents the state of the case thus:—

“New Relief Channel.”

“I gather from the longitudinal and transverse sections taken in January of the present year, and forwarded to me with the other documents, that the making of a new ‘relief’ channel between the upper end of Sluice-box Falls and the lower end of Snag Falls, near Oamaru Creek, which I stated when in New Zealand would be preferable to repairing the old bank, has thus far been attended with satisfactory results. It is not improbable that the bed of the river between the lower end of this relief channel and a point almost a furlong south of gauge No. 13, may eventually require some artificial aid to reduce the bottom to a closer approximation to a uniform gradient than can be accomplished by natural agency alone. I mention this as a matter deserving the attention of the colonial engineers, because it should have the effect of lowering the normal level of the upland water at this point, and, in a corresponding degree, would increase the length, and consequently, the volume of the tidal compartment, whilst it would certainly improve the discharging capacity of the river. If the relief channel should continue to increase in sectional area, it is quite probable that in course of time this may become the main channel of the Buller, a result which I regard as very desirable, and which should be encouraged. If the scouring action of the river passing through the relief channel should cause the erosion of the materials on either side to such an extent as to tend to the creation of an unduly wide or tortuous course, it would be well that this tendency should be controlled, by fagoting the sides at such points, and to such extent, as circumstances may indicate to be necessary.”

The relief channel so cut was merely a ditch 8 feet wide, but it had an immense fall—it fell as much in one mile as the river bed did in one and a half miles, as a consequence of this, the river had a strong tendency to flow down this cut in floods, and so enlarged it to a width of three or four chains. It has a considerable tendency to relieve the river in time of even moderate floods, and in large floods an immense body of water goes down it.

107. Have you any reports about the recent overflow?—I believe Mr. Martin has forwarded some, but I have not seen them yet.

108. It has been suggested that clearing Snag Fall would obviate this overflow into the Orawaiti. Do you think it would?—I think it would be a very experimental thing; sometimes such things do good, and sometimes a flood comes and destroys in an hour what you have been doing for months. To take out the snags and put them along the banks of the river might be successful, or might not. It is purely a matter of accident which way such things result.

109. *The Chairman.*] Those who live there say that this is the true antidote, because since the water has overflowed there, the bar has decreased in depth?—The water on the bar has lessened.

110. *Mr. Macandrew.*] Do you know the relative volume of water in the Buller and, say, the Tees?—I do not know the Tees. The volume of the Buller is, I think, stated in Sir John Coode's report, but I do not know what that of the Tees is.

111. One would think that deepening the estuary of the Tees would be much more difficult than deepening the entrance to the Buller, but they have made a wonderful improvement in the Tees by inducing a scour for less money than the Buller works are estimated to cost.

112. *Mr. O'Connor.*] I have not any personal knowledge of the Tees, so cannot of course attempt to make a comparison of the two cases, but I should imagine that Sir John Coode must be cognisant of this Tees' case, as he has made harbours in England a special study. Having had such a large experience, too, of harbour works generally, it seems reasonable to assume that he would not have designed the works at Westport to cost £600,000 if they could be constructed effectually for a very much smaller sum, such as £130,000.

Mr. Williams.
19th June, 1882.

MONDAY, 19TH JUNE, 1882.

Mr. W. R. WILLIAMS, examined.

113. *The Chairman.*] You have some experience of the bar in the Buller River, and the Westport harbour?—Yes.

114. The Committee wish to ascertain what can be done in order to improve the harbour at Westport, with a view to the ultimate development of the coal trade there, and they would like to have your views on the subject. You have an interest in the Koranui Coal Company?—Yes; I have a large interest.

115. And you know the Port of Westport well?—Yes; I would like, first of all, to state that seven or eight years ago, I was dealing largely with the Town of Newcastle for coals, and I thought that if coal