

393. Supposing the work is extended another 1,100ft., will this have the effect of making it better or worse?—The silting-up will continue into the deeper water; and my impression is that, if the extension were made, there would be almost a dry sand-bank from the mouth of the river to the inside of the breakwater.

394. *Mr. R. Thompson.*] And they were warned of this by you?—Yes. I did not warn any one in particular, but I talked about it, and expressed my convictions to those whom I met.

The Chairman pointed out on the map the direction of the proposed extension, and explained that it was proposed to extend the pier another 1,100ft. in a straight line, where a depth of 13½ft. at low water would be obtained.

Witness: If they extend it in a straight line none of the smaller vessels will be able to go alongside except in fine weather, because of the roll which would be occasioned by the swirl of the sea along the breakwater.

395. *The Chairman.*] It is your opinion, then, that if they carry that pier in a straight line small vessels will not be able to lie alongside?—Except in very calm weather. Wherever there is a bay there is motion with the roll that comes in from the sea, and, though the sea may be like oil, if you measure with a pole you will find there is a rise and fall of about 18in., which would cause the ship to go backwards and forwards, and smash up against the pier. If you were to make a turn in the pier it would protect that.

396. How many feet do you think that turn should be made at the end to be of any good?—It would require 100ft. at least, and that would not be much.

397. *Mr. Allen.*] If they carry out the proposed extension, will vessels have sea-room to get in and out?—That is what we cannot tell. The sand will not rise above low-water mark; but, still, it might bank out and bank out as time goes on.

398. *The Chairman.*] Your impression is that unless this turn at the end of the wall be made the extended pier will be no good?—It will be no good, even if they get a depth a 13½ft., except on very favourable occasions, when fine summer weather prevails.

399. *Mr. Ross.*] What is the prevailing weather?—In summer it is variable from west and north-west; but all the time the sea is setting in. If a wind is blowing fifty miles away it sends the sea in although it might not be blowing in the harbour at all.

400. Sir John Coode, in his report of December, 1880, expressed an opinion that any solid structure between the shore and the line of three fathoms at low water would cause a serious amount of sanding-up on the inner or western side of the new work, and recommended the construction of an open viaduct, the level of the deck of which he proposed to be 15ft. above high water of ordinary spring tides, which would allow the heaviest seas to pass through and underneath it with almost undiminished force, and, consequently, would insure such an amount of agitation as would prevent the deposition of sand in the vicinity of the entrance to the river and shoreward of the outer harbour proposed by him. Have you formed any opinion on the points raised by Sir John?—I have not seen Sir John Coode's report, but that is just my idea.

401. *The Chairman.*] You think, then, the work already constructed has had the effect of shoaling up the bar on the river, and the extension of the pier may make it worse rather than better?—Yes. Small vessels will not be able to lie alongside that pier except in very fine weather, unless they make a turn of, at any rate, 100ft. I just simply call it fencing in the beach, and that is just what it is, in my opinion.

402. *Mr. Ross.*] What is your average tonnage of goods for that port?—About thirty tons per month.

TUESDAY, 31ST JULY, 1888.

Mr. JOHN BLACKETT, Engineer-in-Chief of the colony, examined.

403. *The Chairman.*] What the Committee wish you to tell them, Mr. Blackett, is, whether you, having heard read Captain Sinclair's evidence, concur in what he says—that is, whether your professional knowledge enables you to say if he is correct or incorrect?—He is speaking from what he has observed personally. I have not had the opportunity of doing so.

404. He mentions what, in his opinion, would be the effect if the end of the breakwater were turned 100ft.?—Yes.

405. That refers, however, to the safety of a ship lying alongside, and not to deposit of sand. In the way these works were planned as a whole the idea was that the scour by the river and the water inclosed between the breakwater and the beach would keep a channel clear between Gisborne and deep water, and that the quantity of sand that would be deposited, if any, would be inconsiderable?—I think the effect would be the same at Gisborne as it has been proved to be in other places where work had to be carried on under the same conditions.

406. *Mr. Allen.*] What we desire to know is, how far that scour would act supposing the pier to be extended?—The scour would be quite sufficient as far as the pier extended.

407. The whole length?—Yes.

408. *Mr. Ross.*] That is, if the water were confined at the other side?—Yes. I think the scour would act the full length of the breakwater.

409. Do you not think it would be diminished as it got more sea-room, or would its action be the same all the way out; and would it have any appreciable effect on the sand at the outer end of the pier?—It would be considerably diminished.

410. *The Chairman.*] It is argued that there are 3ft. or 4ft. of sand on the rock all the way out. Do you think that the scour would have any effect in removing that?—For a certain number of feet I think it would.

411. How many, do you think?—I should not like to say right off.

412. *Mr. Whyte.*] If it went out such a length as to have 13½ft. of water, do you think it would act?—Yes.