

Street Wharf to within the distance of the main pier shown on drawing, and extending that pier 400ft. further. These works are in the distant future, and are only indicated to complete the scheme.

"I have, &c.,

"JOHN THOMSON, C.E.,

"Engineer to Harbour Board, Gisborne, Poverty Bay.

"J. Blackett, Esq., M.Inst., C.E., Engineer-in-Chief, Marine Department,
Wellington."

"Memorandum for the Hon. the Minister, Marine Department, re Gisborne Harbour Plans.

"Public Works Department, Wellington, New Zealand, 10th November, 1885.

"It will be observed that Mr. Thomson advises a complete departure from the plan proposed by Sir John Coode. His reasons are stated fully for so doing; and, should the information which he has collected from observations during a period of four months' residence be applicable to the whole year, his reasons may be considered good. It is to be noted that the months during which the observations were made—viz., July, August, September, and October—include winter and spring months, during which it might be expected that almost every variety of change would occur, such as heavy floods and strong winds, &c. Sir John Coode designed a small detached harbour, connected with the shore by means of an open iron viaduct, to allow the sand free movement along the coast, and to guard especially against the movement of sand from the west, which would, he feared, fill up any harbour constructed with a solid breakwater. Mr. Thomson fails to find any indication of a constant movement of sand from the west—in fact, he has found evidence of a movement in the opposite direction, and argues from this that a solid main breakwater may with safety be adopted; and to guard against the chance of a movement of sand from the west his plan includes a smaller and lighter solid breakwater, for the purpose of checking any such movement. Assuming this new information to be correct, and taking it at its full value, I see no objection to the erection of such a breakwater as now proposed. A slight modification might, however, be introduced so as to insure the ebb-tide and flood-waters following closely the inner line of the breakwater—viz., by changing the direction of this line, say, at a distance of about 800ft. from the root, by an angle of about 3°, as shown by a green line on the tracing. The position of the western or smaller breakwater might also be altered with advantage, by moving its point of junction with the shore westward fully 600ft. This would cost no more, would include a larger harbour-area, and more water for scouring purposes. These modifications I should recommend for adoption.

"JOHN BLACKETT.

"P.S.—I beg to submit for your consideration whether Sir John Coode's opinion should not be obtained on the alteration of his design for a harbour at this place, laying before him, of course, all the latest information and reports on the question. I believe Sir John is now in Australia.—J.B."

415. *The Chairman.*] Your memorandum was written on the supposition that they were going to carry it out the full length?—Yes, as a whole. It must stand or fall by that.

416. Mr. Thomson's report refers to the pier as shown on this plan?—Yes.

417. Upon reading the report and examining the plan, you recommended the Government to do certain things: how far would the opinion you then formed, and the recommendation you gave the Government, be modified had you known they were going out only 1,160ft.?—I would not have approved of it at all.

418. Now, assuming that to be the length determined on, is it your opinion that the sand may be brought round the shorter length, and shoal up the harbour?—Quite likely.

Mr. Whyte: I think, if you saw it, you would say there is none worth speaking of. You should see the place.

419. *The Chairman.*] But still, in your opinion, there must be some sand held back by the back drift?—Yes, I think so—that is, on the eastern side.

Mr. Whyte: Then the quantity must be extremely small.

420. *The Chairman.*] If it comes in with the southerly gale, and formed the spit Mr. Thomson speaks of, would not the effect be the same—to accumulate the deposit of sand in other places when the wind and sea acted in another direction?—It would.

421. Now, it is intended to carry out this pier or jetty 1,160ft.: is that a work that commends itself to your professional idea—such as would afford safe accommodation for shipping? Involving as it does an expenditure of £40,000, do you think that is a work which should be allowed to proceed, or which you would recommend, having in view the amount of public benefit to be derived from it?—It is a scheme that I should not recommend if it stopped there.

422. *Mr. Ross.*] You mean as not being a complete work?—Yes.

423. *Mr. Graham.*] Do you think it would be of any use at all?—It would be of use in fine weather.

424. *Mr. Whyte.*] They cannot afford to go the whole distance out: the question, then, is, if they go half way, will they have something that will be of use to them? Of course, they hope some day to go on according to the original plan; but the portion they now propose to make—would it be of use to them?—Yes, in fine weather.

425. But it would be of some use to them, even if they could not afford to complete the whole?—Yes.

426. But if made according to Sir John Coode's plan it would not?—No; not till the whole, or nearly the whole, of the work was done.

[The witness was examined at considerable length on the maps and plans of the locality and works.]

427. *The Chairman.*] Suppose this pier to stop at 1,160ft., is it likely that Captain Sinclair's statement could be verified—that sand would shoal up in the harbour?—It is possible that it might do so in a certain place.