

by any suggestion that such reclamation is necessary in the interests of dredging."

Annual Report for 1903—Page 1.

"There are no places at Lyttelton where reclamations with dredgings would be profitable in the near future."

Annual Report for 1904—Page 3.

"The question of the best place and manner of deposit for the dredging spoil, still seems to exercise the minds of some persons. In this connection I have only to say, that whatever difference of opinion there may be, about the future benefits to be derived from reclamations at Lyttelton, one thing is certain, that any practicable way of depositing the material lifted from the outer channel to form reclamation would add to the immediate cost of the work, and make the present population pay for prospective future benefits, which might never be realised."

Annual Report, 1905—Page 8.

"In this connection it is well to bear in mind that any present disabilities do not come from the waterside, but are on the land side, and as trade increases this position will be more pronounced. Lyttelton station yard is infinitely more congested when business is brisk than the waterside is likely to be for many years. One relief for this state of affairs would be to cut back into the tunnel, sweeping in with a suitable curve from the most northerly line of rails, making this the passenger line; to remove the present railway station, No. 6 shed, and the shed in front of the Sailors' Home, and by these means, increase the effective width of the railway yard, by six or seven more lines of rails, besides adding to the effective length. If the Board had control of the traffic and the handling of goods, this is the direction in which a movement should be made, rather than in visionary schemes of Land Reclamation in situations where the land would be of little value, except as a playground."

Annual Report for 1907—Page 2.

"The great difficulty has always been to find a place for making reclamations where they can be any benefit to the future development of the Port."

F. G. Wilson's Report (Coode, Son & Matthews), 12th February, 1907—Page 2.

"Having regard to the foregoing it would be for the Board to consider whether the value of any land proposed to be reclaimed would be such, as to justify the necessary expenditure upon the retaining bank and pumping plant, together with the probable addition of 1d. or more per cubic yard to the cost of raising and disposing of the dredgings in this manner as compared with taking them to sea. Assuming that the Board do not consider that the cost in connection with utilising the material for the purpose of reclamation would be justified, I would recommend that they

should be carried to sea and deposited say three miles outside the heads."

Could anything be said more distinct and emphatic in condemnation of land reclamation at Lyttelton? After I had read these extracts I remarked what was true then was true now. A rejoinder was made that the utilisation of the new suction dredge had altered the position altogether. Is it not amazing that such a thoughtless remark should be made. Because the only difference between the bucket dredge and the suction one is that the bucket dredge has to lift beside the silt an endless chain of heavy buckets thus causing a needless waste of power, whereas the suction dredge lifts only water and mud. The cost in power in putting the silt into hoppers is consequently much greater in the one case than the other, but once the silt is in the hoppers—there is no difference between the two systems—the expense of depositing the silt is the same. I call attention to this because it shows that the members of the Harbour Board are quite unqualified to deliberate on such matters. After such a firm opinion has been given by the engineers there is no getting away from the fact that no blame can be thrown on them, and that the Harbour Board must shoulder the whole responsibility in departing from their instructions.

Now let me ask you to read carefully the letter which I sent to the Lyttelton Harbour Board, dated 19th June, 1911. It is bringing the subject up-to-date and showing that the Fruhling dredge is not a carrier and is wasting her time when employed as such.

CHRISTCHURCH,

JUNE 19TH, 1911.

THE CHAIRMAN OF THE
LYTTELTON HARBOUR BOARD,
CHRISTCHURCH.

SIR,—

I have the honour to address you on the subject of the disposal of dredged silt.

In a report by Mr. Cyrus Williams, dated 10th September, 1908, it is stated "that a reclamation area outside the Western Mole would be about 56 acres and would contain about 3,630,555 tons silt, or say provision for 8 years' work."

There appears to be some discrepancy here, seeing that during the year 1908, 1909, 1910, a quantity of 2,309,052 tons silt was raised or an average of 769,000 tons per annum. Then the amount of silt to be raised will increase as time goes on, as deeper water will be required to float the ever increasing size of steamers that will visit the port. I may here very properly quote Mr. Cyrus Williams' report, dated 8th May, 1903 (page 4): "These figures indicate that the silting up in the channel dredged periodically outside the Moles has been at the rate of 1 foot per annum, but as there are decided indications that as the depth is increased the silting up is more rapid, I anticipate that a good deal