1,556¾ cwt. steel rails.
   58¼   „   fish-plates.
   54½   „   bolts and spikes.
    7 (number) sets switches and crossings.
1,151 cub. yd. pitching.
3,591 cub. ft. timber in fenders.
  307¾ cwt. wrought ironwork.
  190¼   „   cast-iron.
    1 (number) light and lantern.

The estimated cost of the works comprised in the above quantities is £285,800, as stated in the report referred to above, which sum includes the provision of plant and a sufficient margin for contingencies, sea-risk, and supervision, but is exclusive of the sum expended up to date on works executed in the colony

Bill of Quantities of Work to be executed if the Expenditure on account of the Root and Breakwater Pier is limited to £200,000, exclusive of the Sum expended up to Date on Work executed in the Colony, and the Formation of the Workyard, Shops, Sheds, and Railways thereon.

Root, from starting-point to low-water spring-tides—
    259 cub. yd. excavation for walls.
  3,371   „   concrete-in-mass above low water.
    95   „   „   under pitching of roadway
   137   „   concrete paving.
  9,600   „   filling.
   485 cub. ft. timber in longitudinal sleepers.
   190 (number) cross-sleepers.
  331¼ cwt. steel rails.
   12½   „   fish-plates.
   11½   „   bolts and spikes.
    4 (number) sets switches and crossings.
   81 cub. yd. pitching.
   365   „   road-metalling.

Breakwater pier, from low-water spring-tides out to 1,420ft. from that point, or 1,755ft. from the starting-point—
  9,242 cub. yd. concrete in bags below low water
  2,477   „   „   apron below low water
   563   „   broken stone for levelling below low water
  1,566 sq yd. levelling bags above low water.
 15,000 cub. yd. concrete in blocks below low water
 31,325   „   „   „   above low water
  3,045   „   „   masswork parapet.
   428   „   „   „   under pitching of roadway
  3,484 cub. ft. timber in longitudinal sleepers.
  1,100 cwt. steel rails.
   41   „   fish-plates.
   38¼ „   bolts and spikes.
    5 (number) sets switches and crossings.
   822 cub. yd. pitching.
  2,223 cub. ft. timber in fenders.
  189½ cwt. wrought ironwork.
  121¾   „   cast-iron.
    1 light and lantern.

The estimated cost of the work comprised in the above quantities is £200,000, as stated in the report referred to above, which sum includes the provision of plant, and a sufficient margin for contingencies, sea-risk, and supervision.

I.—Report by the Engineer to the Harbour Board.

Sir,—   New Plymouth Harbour Board Offices (Engineer's Office) 28th August, 1879.

I feel I should fail in my duty to your Board did I not record for their information my estimate of the cost of the proposed harbour-works as designed by Sir John Coode, and at the same time to point out that possibly a more economical section might be adopted.

I have entered upon this course with considerable diffidence, and, in consequence, have not hastily arrived at conclusions, but have accepted the figures and calculations of well-known civil engineers, whose statements have been subjected to the criticism of the Institution of Civil Engineers at their meetings 1st February 1876, and 9th November, 1875, presided over respectively by G. R. Stevenson and J. E. Harrison, presidents of the institution.

Having now examined Sir John Coode's plan and report (since their return from Wellington), with a view of ascertaining the probable quantity of rubble-stone, &c., required for their completion, I find that to build the western mole from A to YY will take 545,000 cubic yards, and this quantity is arrived at in the following manner viz. The quantity of rubble, according to Sir John Coode's report, required to complete from A to B is 800,000 cubic yards, measured in the mound, and the calculated quantity from the drawings between YY and B is 119,000 cubic yards, thus leaving 681,000 cubic yards to complete from A to YY but as 16 cubic feet of stone measured in the solid will occupy 20ft., or about, when in the mound, 545,000 yards will be required to complete to YY