however, that if the battery were constructed on the southern side an enemy might enter Port Levy and send a small body of men across the range of hills—over 1,000 feet high—which separates the harbor from the port, with a view to capturing the work and bombarding the town and shipping. Such an operation is not at all likely to be undertaken, as it would be extremely difficult considering the very rough nature of the country; and, as the battery would be well secured from assault, it could not be seized by any force such as would probably be landed.

It has also been urged that the weak point of Lyttelton and Christchurch is that both places are open to attack from the direction of Sumner—a small settlement at the mouth of the River Avon, situated eight miles from Christchurch, which city is reached by a perfectly level road. The road to Lyttelton passes over the saddle of a hill at a height of 1,100 feet, and an enemy landed near Sumner could reach a position, overlooking the port, in less than two hours.

Unless the enemy possessed a force, superior to that of the defenders, he would not attempt to land his men on an open beach where—even if he succeeded in obtaining a footing—his retreat might possibly be cut off by a change of wind or weather. Operations of this sort, therefore, are not likely to be undertaken if a small field force is maintained at Christchurch to counteract them.

The harbor of Otago is a narrow estuary, about twelve miles Port Chalmers and Dunedin. long, nearly parallel to the coast, from which it is separated at its upper Population, end by a narrow neck of land, called the Ocean Beach, 1,500 yards wide 35,026. at its narrowest part.

Dunedin, the city of the province, is situated at the upper end of this estuary; and Port Chalmers, which is in railway communication with the city, lies about half-way between it and the sea. Although a considerable expenditure has been incurred in improving the channel leading up to Dunedin, the shipping lies at Port Chalmers.

Dunedin is exposed to two modes of attack by sea. An enemy might pass in through the Heads and appear before Port Chalmers—in order to destroy the shipping lying there—or, he might take up a position off the Ocean Beach, half a mile from the shore—from which he could see the city within easy range—and, by bombarding it, enforce submission to his demand for a contribution.

It is extremely improbable that he would be able to land on this beach, as the sea breaks upon it throughout the year; nor, in fact, is there any favorable point to be found for such an operation along the coast outside the harbor.

The defence of the entrance has first to be considered. The channel being rather intricate, with a bar across it, the navigation is somewhat difficult. Point Harrington, within the Heads, affords an admirable site for a battery, to face the entrance and command the channel, which at this point is narrowed by shoals to a width of 400 yards. I propose that the work should be designed for five guns, but