conditions, be between 5 ft. and 6 ft. higher now at the traffic-bridge than was the case in 1878. Therefore, although your Commissioners are recommending the construction of levees very much higher than the height to which the 1878 flood rose, they are nevertheless only providing for the same amount of water as came down in that flood.

On the Balclutha peninsula below the traffic-bridge there are three methods which may be adopted:—

(1.) If the Railway Department desire that their line should be above the new flood-level and are prepared to pay for raising the line, including the station-yard, then the railway should be raised, in which case the railway embankment would form the levee from the south end of the railway-bridge to the high country below the Balclutha Railway-station.

(2.) If, on the other hand, the Railway Department consider that it is preferable to take the risk and suffer damage when extreme floods occur, the balance of the town should be protected by raising the present levee which surrounds the show-grounds, continuing the same down Glasgow Street, then parallel to the railway-line into Baxter Street, and thence by Stewart Street beyond the junction of these two streets to connect with the high country at Rosebank. Where the levee-line is in a street the street should be raised and act as a levee.

(3.) The existing railway-bank might be used down to the vicinity of the present flood-opening viaduct, this viaduct to be removed and replaced by an embankment above flood-level down to Glasgow Street. The levee could then be taken round the outside of the station-yard to below the goods-shed. A gap could be left where it meets the two sidings serving the goods-shed; and protection could be afforded by raising the goods approach road to the necessary height, and from the present level-crossing to the hill by building a small bank as an adjunct to the present formation on the river side thereof above flood-level. This may necessitate some alterations of the sidings serving the stockyards, and possible alterations of the stockyards themselves, to give an equal area of stockyards with less width. The gap in the levee where the goods-shed sidings would pass could be closed in time of flood by means of stop-logs dropped into a groove prepared in concrete abutments.

Your Commissioners recommend the third method. Irrespective of which of these three schemes is adopted, it must be clearly understood that the levee must be carried down the river-bank below the traffic-bridge and connected with the railway-bridge abutment.

(*d.*) The bend of the river about two miles below Stirling, known as Pillan's Bend, should be cut off by a river-diversion, as shown on plan No. 2; and also the bend of the river known as the Balloon Loop, near Kaitangata, should be cut off by a diversion as shown.

In neither case is the diversion shown along the shortest route which could be found, but they are so located as to give easy curves, swinging off the existing alignment in such a way as to minimize the chance of future erosion. The result of these cuts will be that the average slope to the sea will be considerably increased, and they will thus minimize the tendency of the levees to raise the flood-level when they control the flood-waters within the actual boundaries of the river.

(*e.*) The present Hermitage Levee should be raised and continued down-stream as far as may be necessary, to the grade and levels shown. The alignment of the extension is shown approximately on plan, but its exact location is a matter for detail survey.

At the first diversion referred to above, the levee should continue round the existing channel; and at the Balloon Loop the levee should follow the Swamp Road to the Kaitangata traffic-bridge, and from thence run to the tidal gate recently constructed across the Tuakitoto Canal. From that point onwards it should run into the hillside at Kaitangata Township; from this point onwards, the areas of