

so destructive in Nelson and in most parts of the North Island except the Wellington District.

4. "Notes on Te Karamea Bluff," by Captain G. Mair.

ABSTRACT.

Te Karamea Bluff is about a mile and a half south of Motuokura or Bare Island, and south of Cape Kidnappers some ten miles. It projects into the sea about 120 yards, and is joined to the mainland by a razor-back ridge of white marl, some 20ft. or 30ft. high and half the thickness. The highest part of the bluff is close on 100ft. It is formed of crumbling stone of every conceivable colour, red and chrome predominating. The whole mass appears to be resting on and slipping to seaward from a layer of marl. No other similar formation exists in the district, except in a small valley running parallel to the coast about a quarter of a mile west of the bluff, where there is a mound of the same material, about the size of a large haystack, cropping out on the hill-side. This place was formerly a refuge for the native tribes during war-time, as it is almost inaccessible. About 1828-30 a war-party of Ngatihonua, from the Thames, under Takurua, who was afterwards killed at Kaipaki by Te Waharoa, laid siege to Te Karamea. The besieged were unable to lay in a store of food and water, and sustained themselves for a considerable time by occasionally lowering the most venturesome of their number into the sea at the outer end, who would collect limpets and seaweed from the rocks, and be drawn up the cliffs by ropes. Eventually they became so emaciated from want of food that the pa was taken, and a great massacre took place. The spot is now very sacred in the estimation of the natives living in the district. They had a whaling-station near by a few years ago, and a good boat-landing exists on the north or east side, according to the wind.

Mr. McKay said he was pleased that the paper had been read, more especially as it was evident the writer was unaware that a discussion on the true position of the red rocks had taken place; and yet the paper and sketch made it quite clear that these overlie the marl and greensand-beds of the isthmus and mainland. The evidence given in the paper was thus in agreement with what he himself reported in 1875, and again in 1886, and in no sense bore out the contention put forward by Professor Hutton that the rocks of Red Island—Te Karamea Bluff—are of palæozoic age, and are referable to the Rimutaka series.

5. "Remarks on Earthquakes in the Amuri District, South Island," by Alexander McKay, F.G.S.

ABSTRACT.

The author commenced by stating that, for twelve months previous to the end of August last, booming noises, proceeding from the ground, had been heard in the district surrounding the Hanmer Plains, and that towards the end of that month earthquakes began to be experienced; these premonitions were followed by the great shock of the 1st September, which did nearly all the damage that happened to buildings, and opened most of the fissures that are yet to be seen. This was followed by the shock of the 28th September, and, after a like period, by that of the 23rd October, and those of the 26th and 28th of the same month; there being just about a lunar month between the first and second and the second and last series of shocks. Mr. McKay then described the effects the earthquakes had produced, and gave a detailed account descriptive of the fissures opened at many places along the Waiau-ua and Hope Valleys, more especially those seen near the mouth of Gorge Creek near Hopefield, at Hopefield, and at and near Glynn Wye. The present ruined condition of the buildings at Glynn Wye was described, and the manner in which the fences