southern one splits up into several, one trending to Port Charles, and another in the direction of Cabbage Bay. From the low angle which they present the whole mountain is given a bulky and massive appearance, relieved only by their terminating in a sharp rugged peak, destitute of forest vegetation, forming a prominent feature in the landscape, the rest of the mountain being otherwise densely bush-clad.

"As leading to the summit of the mountain I had choice of three different routes—viz., one from Stony Bay, one from Port Charles, and a third from the western side by means of Spencer's survey track from Waiaro, on the Hauraki Gulf. Electing to take the second route mentioned, by which to make the ascent, I decided also, should circumstances permit, to descend by Spencer's track to the shore of the gulf, at the mouth of the Waiaro, and thus make a complete traverse of this part

of the Peninsula.

"Having so decided, and made the necessary arrangements, with a guide I left Port Charles at daybreak on Monday, the 17th May, and commenced the ascent to the southern central spur that forms the water-divide between Port Charles and the gulf immediately north of Cabbage Bay. The good qualities of the track might easily be called in question, and a dense undergrowth of bush, grass, and scrub made progress difficult and slow. The rocks travelled over showed frequent exposures at the surface, and at other places loose stones indicated that we were still on the same class of country that shows in the low grounds and around the shores of Port Charles and the neighbouring bays. I had no means of determining heights with exactitude, the pocket aneroid I had with me clearly being in error, and therefore the heights given are but a rough approximation; but as the heights where the Waiaro track reaches the top of the southern spur and the top of the mountain are known, the estimates given cannot be greatly in error. Determined in this way, I consider that from Port Charles the volcanic rock, andesic breccias, &c., stretch from the shoreline up the eastern side of the southern spur to a height of 1,500 ft. above the sea, at which point the slates forming the crest and western slopes of the ridge appear from beneath the volcanic

rocks.

"Following the principal ridge northward towards the main peak the presence of the slates on this was evidenced by outcrops of solid rock, and also by boulders, &c., derived from the same. The slates were mostly decomposed to a buff or stone-coloured rock, very different in appearance to the same rocks as seen on the coast-line and within or below tide-mark, but not differing from what may be seen on the first few miles of road on the way from Cabbage Bay to Port Charles, or on the road from Coromandel to Kuaotunu, or on the hilly country south of Coromandel Harbour, and

thence to the Manaia Valley.

"The slates by such means were traced to a point under the highest peak of Moehau, which I estimate at about 350 ft. from the top. Where last seen in the solid the slates were of fine grain and much weathered or decomposed, yet easily distinguished from the nearly adjacent igneous rocks forming the highest part of the mountain. As the height to which the slates reach is a matter of importance, I may once again state on what grounds I estimated the remaining height from the last outcrop of the slates to the top of the mountain. From the disappearance of the slates upwards travelling was over steep ground, clad with a dense scrub 4 ft. to 5 ft. in height; there being no track, progress over this part was necessarily slow. To overcome this might have taken ten or twelve minutes, when boggy ground not so steep was entered upon. Finally, to reach the peak, a precipitous cliff, 50 ft. or 60 ft. in height, had to be scaled, and the entire journey from the last seen of the slates to the top occupied about twenty minutes. As the height of the mountain is 2,900 ft., by the above means I estimate that the slates reach a height of 2,650 ft.

"On leaving the sedimentary rocks behind, the contours of the higher part of Moehau completely alter, the long spurs come together, crowned by abrupt escarpments, to form the final peak, which thus stands up separate and very distinguishable from the bulkier mass of the mountain below. This tooth-like projection forming the top of Moehau is composed of a moderately fine-grained but completely crystalized rock, andesite or diorite, as the case may be. In its arrangement the mass seems to dip to the north at a low angle. Unfortunately, the higher part, from 1,500 ft. above the sea, had to be ascended during the prevalence of a dense fog, so that when the top of the mountain was reached no observations of anything more than a few yards could be made; but, as my instructions principally directed the determination of the height to which the slates attained, I did not consider the tracing of the volcanic rock a matter of prime importance; indeed, under the circumstances, to attempt such was to essay the impossible, as during a short winter day the ascent and descent by another route was more than enough for the time at our disposal.

"Commencing the descent of the Spencer survey-track, which, however, went over a portion of the Port Charles route, and after passing the junction, nothing but slates showed, and continued completely down to the water's edge at Waiaro, no volcanic débris being seen in the creeks or elsewhere, thus defining the present boundary of the volcanic rocks forming the lower slopes of the mountain towards Port Charles. The slates on the lower ground are quite undecomposed, and extremely hard, resembling (except that they are not brecciated) those immediately north of Tapu, between Coromandel and the Thames. The Spencer track downwards leaves the spur on to a

small alluvial deposit, stretching forward for three-quarters of a mile to the coast-line at Waiaro.

"On the beach the indurated character of the slates is still retained, the dip and strike being shown very plainly. The strike is in a northerly direction, with a general dip to the eastward at an angle of about 45°, thus in strike conforming with the main body of the slates in other parts of

Around the shores of Cabbage Bay the slates are fine-grained, and thin-bedded mudstones with thicker-bedded strata of more calcareous rock. Sometimes the calcareous matter so abounds that the rock may be regarded as an impure limestone. Mostly, however, it is aggregated in patches, scarcely ever in concretionary masses.