

shaped. and white-spotted with purple. The "berry" is fleshy, a quarter-of-an-inch long, and reddish-purple.

As in all New Zealand forests, climbing plants are a special feature. These may be divided into scramblers, root-climbers, winding-plants, and tendril-climbers. The Bush-lawyer (*Rubus australis* and other species) is a scrambler which climbs by means of the hooked prickles on its leaf-stalks and midribs. In the Leafless lawyer (*Rubus cissoides* var. *pauperatus*) the leaf-blades may be virtually wanting, and the leaf reduced to midribs. This is the form of the open, but, in the forest-shade, reduced and true leaves occur on the same plant, but it is only from shoots bearing the latter that flowers arise. The species of *Clematis* climb by means of leaf-tendrils. The one with large white flowers is *Clematis indivisa*. The most common on the Port Hills is the inaptly named *Clematis foetida*, with its profusion of sweet-smelling yellowish flowers. There are two species of New Zealand Jasmine (*Parsonsia*). Both are winding climbers and are separated from other forest-plants by their narrow kidney bean like seed-cases, four to six inches long, which finally split open and set free the numerous seeds, each tipped with a tuft of long, silky hairs. *Parsonsia heterophylla* has broad, adult leaves and white flowers, whereas in *Parsonsia capsularis* the leaves are narrower and the flowers reddish and smaller. The species of *Muehlenbeckia* are also winders. The leaves are variable in form. Both species are recognised by their small, black, three-sided seed partly enclosed in a translucent succulent covering. The large-leaved species is *Muehlenbeckia australis*, and the small-leaved *Muehlenbeckia complexa*; its flowers, too, are far fewer together than those of the former. The latter species, when growing in the open, forms conspicuous rounded bushes.

There are obviously many more plants left undescribed than have been dealt with, for I have only attempted to give the uninitiated in non-technical language a clue to the names of those plants they are most likely to see. I have attempted, too, to show that there are interests on the Summit Road other than those of scenery and exercise, and that there are treasures to be religiously guarded. Learning the names is merely a preliminary in plant acquaintanceship. There is not one species of the whole two hundred and five of the Port Hills but can, if we succeed in laying bare its secrets, tell us, in the history of its life and its relationships, a story of unsurpassing interest.



THE SUMMIT ROAD.

A WALK ROUND THE RIM OF THE CRATER OF
AN OLD VOLCANO.

By R. SPEIGHT, M.Sc., F.G.S.



NOT the least of the interests presented by the view from the Summit Road is that furnished by a consideration of the three chief features of the landscape, and how they have originated. In the far distance lie the Southern Alps, with even sky line and bold escarpment facing the Plains, affording an excellent example of the results of those stupendous forces which crush the rocks and fold them up into long ridges as if they were sheets of parchment. At the base of the range lies the broad expanse of plain, suggesting to the casual observer the stagnation of all geological activity, but yet due to a cause which continues unobtrusively and, acting for long spaces of time, produces the greatest changes to which the earth's surface is subject. While all around we are reminded of volcanic action, an agency which appals with its paroxysms, yet by comparison with the two former is of relatively small moment. One single flood in the Rakaia or Waimakariri probably produces more permanent change than half a dozen of the ordinary eruptions which at one time devastated the