

Travelling by coach from Napier to Rotorua (29th September) I took note of the forests to Tarawera. The timber country has been extensively cleared to provide pasturage for stock, and in this, as in so many other districts, the destruction of valuable timber has been enormous. Good bushes are still left, but, as the inroads still continue, these too must disappear within a few years.

At Dannevirke the rata grows to an enormous size, and totara also to abnormal dimensions. I saw here many veritable giants of each species.

Passing through Wairakei and over more pumice country we reached Rotorua, and spent Friday, Saturday, and Sunday in inspecting Waiotapu and Whakarewarewa, and in the ascent of Tarawera.

Mr. A. M. Smith (of the Industries and Commerce Department) and the Manchester delegates were at the time visiting Lake Rotorua, Mokoia Island, and the Hamarana River, and I gladly accepted an invitation to join the party.

On Monday, the 5th October, I left Rotorua for Auckland, visiting the Kauri Timber Company's mill, where Mr. Trapp, the other directors, and Mr. Blair, the manager, courteously afforded me every facility for observing how the kauri timber is treated at their mill. Mr. Blair also kindly accompanied me next day to the Waitakerei forest to visit those veritable giants of the vegetable kingdom—the kauri pines—growing in their native habitat, and I was struck with admiration at the truly noble appearance of the tree—its vast size and great commercial value.

Next day was spent in visiting city mills, other than that of the company, and among these were the Waitemata, of Messrs. Smith, also Messrs. Goldie and O'Brien's, &c.

Leaving for the Thames on the 10th October I visited Coromandel Peninsula with Mr. Campbell, bush foreman to the Kauri Company, and inspected the kauri forest in that locality; also the dams for flushing timber down the river, and the various methods adopted for conveyance of timber by land or water, finding this day's trip most interesting and instructive.

Returning to Auckland on the 13th October, some of the mills were revisited, and information obtained from the Crown Lands Commissioner, Mr. Mueller, and to this gentleman I am indebted for much valuable information *in re* kauri and other timber; and on the 15th October I left Auckland for Sydney, being just three months on the tour of inspection, &c.

FOREST CONSERVATION.

FIRST GENERAL APPLICATION OF SCIENTIFIC FORESTRY.

The recognition of forestry as a science is comparatively new to English-speaking nations, and in the early part of the present century was practically unknown, except in a limited degree among the landed proprietors of the British Isles. With the advent of steam-power, however, a great change took place, and the timber-supply necessary to meet the requirements of the civilised world was found suddenly to assume a magnitude never dreamt of in the days anterior to Stephenson's discovery. The previously available forests of the Old World rapidly decreased in area, and as railways opened up new tracts these in turn were speedily denuded of timber. Just, however, when the increased demand had caused the strain upon European forests to become acute, and timber grew scarcer and more difficult to obtain from these sources, the memorable "rush" to California set in, and gold—that mighty factor in causing the rise of new nations abroad—drew thousands of its votaries to the New World; great cities arose as if by magic in the wilderness, and the huge forests of America were opened up.

The unrivalled means of transit by floating enjoyed by the river States led to their forests being first opened up to foreign trade, ships from all parts of the world quickly made the merits of American timber as well known in the world's markets as those of the Baltic and other European forests. Ample supplies from this new source at once relieved the grave strain upon the forests of Europe, where the authorities had learned by the position in which they had been placed a useful lesson—one, too, that every country must learn sooner or later—that forests, however extensive or prolific, are far from being inexhaustible.

NECESSITY FOR FOREST-CULTURE RECOGNISED.

No sooner, then, had American supplies come to the rescue of European markets than the authorities of the Old World took prompt and vigorous steps to conserve and replace their own forests. Nowhere, perhaps, was the task undertaken with more real earnestness than in France, where many hundreds of thousands of pounds have already been spent in replacing timber stupidly cut down on the mountains to improve the grazing capabilities of the lands. This became a national necessity, because the foolish denudation of mountain-slopes allowed the floods from winter rains and melting snows to tear away the soil, wear chasms and watercourses in all directions, and poured vast quantities of silt, *débris*, and broken rock over the plains, utterly ruining tens of thousands of acres of the finest available lands lying along the bases of these mountains.

In Germany, Norway, Sweden, and other countries, forestry was also undertaken. Schools were established at a great cost, and at the present time some of the ablest professors are available for forest teaching, and forestry is now recognised as an exact science.

The enormous sums of money expended by France, Germany, Austria, &c., on forest operations may possibly open the eyes of some Australian authorities to the supreme importance attached to such work in these countries, which employ large numbers of State officials in this department, three thousand being considered by no means a staff of uncommon strength. Yet, in spite of the cost, these countries, without exception, find that the greater the care taken of the forests the greater the net revenue from them.

India also employs an immense staff in conservation, &c., many of the officials being natives; and for several years past, according to late reports, the revenue exceeded £1,000,000 sterling annually. No country in the world can afford to be careless in the matter of forests—the sources of its timber supply.