

1874.

NEW ZEALAND.

HOT SPRINGS DISTRICT OF THE NORTH ISLAND,

(LETTER FROM THE HON. W. FOX TO THE HON. THE PREMIER.)

The Hon. W. Fox to the Hon. the PREMIER.

SIR,—

Wellington, 1st August, 1874.

At the date of my retirement from office last year, I left behind me a memorandum, intended for the incoming Ministry, on the subject of the hot spring country in the interior of this island, and I made suggestions relative to the acquisition of that country by the Government. During the past summer, I spent several weeks in the principal districts where the hot springs exist, and I have now the honor to address to you a few memoranda on the subject, which may possibly be useful to your Government, if it should ever carry out my former suggestion of utilizing the springs for sanitary purposes.

The hot spring country is well defined by Dr. Hochstetter as commencing at the northern base of Ruapehu and Tongariro mountains, at the southern end of Lake Taupo, and thence extending in a north-easterly direction, for a distance of about 150 miles, to White Island, in the Bay of Plenty, being for the whole distance about the same width as Taupo Lake, say twenty-five to thirty miles, and possibly fed by an underflow from that lake. A few springs not included in that area may be found in other parts of the island, as at Tarawera, fifty miles from Taupo, on the Napier road, and at Mahurangi, in the country north of Auckland, and a few other localities. But these are insignificant in comparison with those which lie within the limits above defined.

There are some half-dozen sites in the country referred to in which the number of springs and other active volcanic agencies are so great as to afford almost unlimited facilities for the establishment of sanitary institutions, and it is to these that I wish to draw the particular attention of the Government. Before doing so, however, it may be well to distinguish the different forms in which the heated water and steam emerge from the subterraneous reservoirs and appear on the surface. They are classified by Hochstetter under three heads: 1. *Puias*, which are geysers continuously or intermittently active. 2. *Ngawhas*, which are inactive *puias*, emitting steam, but not throwing up columns of hot water. 3. *Waiarikis*, which signifies any sort of cistern of hot water suitable for bathing. The lines of distinction are perhaps not always very well defined. To these may be added mud volcanoes, and numerous creeks and streams either entirely hot, or tepid, or cold with occasionally hot springs breaking into them and raising their temperature for several yards around. This feature also occurs in some of the lakes, as Rotorua and Rotomahana.

I will now proceed to describe the localities which, from their wealth of hot springs and fumaroles, appear more particularly adapted for sanitary purposes and the establishment of hydropathic institutions.

Beginning at the southern extremity of the district above defined—that is, at the southern end of Lake Taupo—there is, at Tokano, a very largely developed group of active and quiescent springs. The Native village which bears that name is erected in the midst of them, and they are used for the various purposes of bathing, cooking, and other domestic uses, by a population of two or three hundred souls. The principal bath consists of a deep *ngawha* between two boiling *puias*—the two outer ones, above and below, being boiling hot, or nearly so, while the central one is of a temperature of not more than 100° to 110°, and therefore very pleasant for bathing. Its heat can be increased or diminished at will by shutting off its connection with the upper *puia*, which is easily done with a sod or a bunch of fern leaves. The bathing pool is about six yards in diameter, and its construction is convenient and peculiar, consisting of a deep central channel which cannot be bottomed by diving, surrounded by a shelf of a yard or two wide, on which the water is only two or three feet deep. This affords accommodation both to the expert swimmer and to those who have not acquired that useful accomplishment.

A fine clear creek of cold water, five or six yards wide, runs through the settlement, on both shores of which are many *puias* and *ngawhas*, some violently boiling and others of various degrees of heat and ebullition. Some of these already mingle their waters with the cold creek, rendering it for a few yards a pleasant warm bath, and in many more places the hot and cold water could easily be led into each other, so as to provide an almost unlimited number of baths of any temperature which might be desired.

Tokano has a special importance relating to the settlements of Wanganui and other places on the West Coast, from which it will be easily accessible when the road now under construction is finished. The bathing facilities, however, at present, can only be used in common with the Natives, who morning and evening resort to the principal bath in such numbers as often to completely fill it. If they should continue to occupy Tokano, it would be necessary to utilize some of the other springs or cisterns in the neighbourhood for those who might prefer privacy to the communistic lavatory system of the Natives.