

and Dr. Makgill and I visited the whare in which the body was lying. From appearances the man had evidently been dead three if not four days, and we learned that no one had looked after him. The body was covered with scabs and in places maggots, and the epithelium when touched peeled off, taking the scabs with it. This man had recently returned to Mangere from Maungatautari, near Cambridge, and had certainly infected that district, as he was a relative of one of those who died at Maungatautari. After the return from the *hui* at Mangakawhia a meeting was held at Mangere. I have not been able to ascertain the exact date upon which the bulk of the Natives returned from the *hui*. Learning from Rukitai that there were several infected who had been north, attention was again drawn to the two early cases in the Mangakawhia Valley, and inquiries and reports came to hand that the first person to have this particular rash was the Mormon missionary. He was located at Awarua, where he was teaching at a school. His history is as follows:—

Mr. Richard Shumway joined the s.s. "Zealandia" at Vancouver on the 19th March, having left Arizona on the 8th March, and landed in Auckland upon the 8th April. He stayed in Auckland four days and then went to Whangarei, where he landed about the 12th April; then went on to Maromaku, where he stayed with another Mormon, Elder Purser Going, and eventually travelled to Te Hora, where the *hui* was held on the 14th April. Mr. Shumway states that the day after reaching Te Hora he felt very ill, pains in the head and sore throat being the chief symptoms. A rash which he thought was measles appeared on his face, neck, body, and legs. He remained at Te Hora for a week and left for Awarua, and at the time of leaving scabs were dropping off him. At Awarua he commenced teaching, mixing freely with the Natives. After leaving Te Hora the inmates of Elder Purser Going's household sickened, the first appearances of rash being seen on the 2nd May. Reckoning the dates out—arrived Te Hora 14th April, sickened next day, remained one week—brings us to about the 22nd, and from the 22nd April to the 2nd May—ten days from the time of Shumway leaving whilst scabbing to the time of the rash (not invasion) being noticed amongst Going's family, allowing the usual twelve or thirteen days incubation common to smallpox, we conclude that the infection was carried from Shumway during his stay at Te Hora.

*Course of the Epidemic.*—Owing to the wandering habits of the Maori race it naturally followed that settlement after settlement quickly became infected with what was still considered to be chicken-pox, and at the dispersal of the Natives attending the *hui* at Te Hora infection was carried in all directions. Wherever medical men saw any of the cases they were still considered to be chicken-pox. The Mangakawhia Valley from end to end was infected, and cases occurred at Kaihu, afterwards spreading to Karara. Kakanui district next suffered, followed shortly afterwards by Mangere and Onehunga. From Mangere we have authentic information that one of the Natives from that district whilst sick went to Maungatautari, and so started the disease in that district. In the middle of June a Land Court was held in Auckland to which Maoris from all parts came, filling the Maori boardinghouses and hotels in different parts of Auckland. They introduced the infection into these houses, from which all the first cases that occurred in Auckland were removed. At the close of the Court in Auckland many of the Natives journeyed to Thames, where another Court was held, and fresh centres were started again in the Thames district. Many Natives had gone to Te Kuiti in the expectation of a Court being held there, but a case being discovered at Thames amongst those attending the Court, further meetings were postponed. Inquiries made at Thames revealed the fact that whilst in Auckland many of these people had been staying at one of the three houses which supplied the early Auckland cases. At one of these houses, which usually accommodates about forty visitors, we found that during the two previous days over thirty had left Auckland for Thames and Waikato. Many Natives returning to the Waikato stopped at Ngarnawahia and Taupiri, at both of which places outbreaks of smallpox were dealt with.

The outbreak in the Tauranga district is also referred to Auckland, but I am not able to state definitely that this is the case, as the house referred to in Auckland had been clear of disease for quite a month before the Tauranga first case was reported.

In nearly all these early cases the disease was mild and referred to as chicken-pox, and it was not until the severe cases at Parawera, Maungatautari, and Taupiri were seen that the doubt which had hung over the exact nature of the complaint was cleared.

*General Type of Disease.*—Undoubtedly the general type of the epidemic up to the present time has been its mildness with but very few exceptions. The incubation period has been as a rule about twelve days, but there have been cases that have gone over this time. Some have gone as long as seventeen to twenty days; hence the fact that they have been considered to be chicken-pox. Prodromal symptoms in the earlier cases were not very marked, but the bulk of the patients old enough to give an account of their illness said that they considered they were in for an attack of influenza. The backache, such a severe and constant symptom of ordinary smallpox, was not so marked as one would expect. The evanescent rashes on the lower part of the body have been few and far between. The character of the rash has been one of the most interesting features throughout. The macule first appeared, as usual, and, rapidly developing into the papule, has been fairly constant, but the rest of the development into the pustule has departed greatly from the usual condition. Often at the fifth day the rash has been fully pustular, and scabs on the seventh day have been quite common. The usual vesicular stage has been extremely short, and even on the third day I have seen the blebs filled with a milky-looking fluid. This early maturation has been the cause of endless misgivings when making a definite diagnosis, as it is quite different from the usual and accepted course of ordinary smallpox. Again, once the pustule has formed it seemed to have the usual characteristics of smallpox, being round and slightly umbilicated at the centre. The depth of skin invaded also presented differences to true smallpox. In the early stages definite pitting was rare, but instead the pigment of the skin seemed to have been