

Hydatids.

Dr. Champtaloup (Otago) reports :—

Four cases were notified during the year.

An unusual number of cases of this disease come from that portion of South Dunedin supplied from the Silverstream Reservoir. The water-supply is brought from the gathering-ground to the reservoir in an open water-race, and is liable to animal pollution. On various occasions analyses of this water-supply have been made, and its inferior quality pointed out to the Corporation.

An investigation of all cases of hydatids which have been under treatment at the Dunedin Hospital for the last twenty years is now in progress, with a view to determining the factors concerned in the incidence of this disease.

DANGEROUS INFECTIOUS DISEASES.

The infectious diseases declared to be dangerous infectious diseases in the meaning of the Public Health Act are : Plague, smallpox, leprosy, and cholera.

Plague.

Dr. Makgill (Auckland) reports :—

The past year has been a memorable one in Auckland, in that we have had the first indication of anything approaching to an epidemic of plague. In previous years we have never had more than two or three cases ; this year there were 8, 3 of which came from the outlying suburb of Onehunga, indicating a wider spread of the infection than heretofore.

The outbreaks in previous years are shown thus :—

1901	1	1907	3
1902	0	1908	0
1903	3	1909	0
1904	2	1910	3
1905	0	1911	8
1906	0		

The last evidence of plague had been a case in the city, reported on the 8th June, 1910, and during the next nine months no infection was discovered in human beings or in rats. During this period of immunity it is to be feared that the precautions in the city had been relaxed to a great extent, although some poisoning was carried on by both City Council and Harbour Board.

Infection among Human Beings.—In February we issued a circular to the harbour and shipping authorities asking for a renewal of precautions against rat-infestation, and this matter was also brought to the notice of the City Council. This action was justified when a month later, on the 20th March, Dr. Scott, of Onehunga, reported a suspicious case in a woman in charge of a fruit-shop in that suburb. She was at once removed to the observation ward at the Hospital, and as there was no doubt as to the diagnosis, immediate precautions were taken at the fruit-shop, which was closed to the public and thoroughly disinfected. On inspection next day I found it to be a dilapidated and insanitary building, much infested by rats. The patient also gave a history of finding dead rats among some rubbish at the back of the shop a few days before her illness. Owing to the insanitary condition of the building I signed a certificate of condemnation, and it was subsequently pulled down on the order of the Magistrate. It seemed probable that the infection had been introduced from the wholesale fruit-stores in the city from which cases of fruit were daily carted, therefore at our request the Council began a systematic inspection and cleansing of these stores, in many of which the fruit was kept in very insanitary cellars about the lower parts of the city, in the neighbourhood of which most of the cases had been traced in previous years.

On the 22nd March, two days after the first case was reported, we were notified of two other suspects—the husband of the first case, and their assistant in the shop. They were removed to hospital, where, in the latter case, the disease developed as one of the pneumonic type, and, in spite of due precautions, one of the nurses who attended him also developed pneumonic plague four days after his death on the 29th March. Fortunately, in the nurse's case the disease was of a less acute type, recovery taking place after a very severe illness, while the infection spread no further among the nursing staff.

The fifth case was reported on the 30th March, the patient being a boy working in a bottling-store in Customs Street, City, in the centre of the plague area. In this case, as in all others, the history showed the presence of mortality among rats, the boy having handled two dead rats found in the cellar of the store. This cellar was itself in a very satisfactory sanitary state, and not greatly rat-infested, but it was found that rats could gain access to the building through various openings, and doubtless the infected ones had come there when ill to take refuge. Ordinary cleansing and disinfection of these premises was deemed sufficient, and the place was not closed down.

During April no further cases were reported, but on the 3rd May Dr. Harke reported a sixth case, the patient again living at Onehunga. On inquiry, however, it was found that he worked in a large warehouse in the city, and as the same evening Dr. Frost reported a seventh case, the suspect also being an employee in this warehouse, and living in Mount Eden, it seemed probable that the infection was received not at their homes but at the place of work. This warehouse, while in an excellent sanitary condition, was subject to invasion by rats during wet weather, when they were driven from the sewers, and, as usual, there was a history of mortality among these rats shortly before these cases developed. During the cleansing precautions at the warehouse dead rats were found in the linings of part of the buildings, but too decomposed to enable diagnosis to be made. Further evidence that infection arose at this warehouse was received when on the 8th May Dr. Murray reported the eighth case, the patient