

The reservoir had been drained and cleaned out last on 7th October, 1947. For this purpose additional temporary staff had been employed. New gum boots had been used and the work had been done under supervision. The date of cleaning was too late to account for a considerable number of the early cases. In view of this and the other relevant facts, it was considered reasonable to rule out the cleaning of the reservoir as a possible source of infection. A leak in a branch main had occurred some four months previously. The site of the leak was inspected. It was well away from any drain and no possibility of contamination of the water-supply having occurred through the defect at this point appeared at all possible. Taking all the facts into consideration, therefore, while the water-supply could not completely and absolutely at that time be exonerated as a possible vehicle, the possibility of it having any causal relationship to the epidemic was considered most unlikely. Subsequent sampling revealed transient contaminations of the supply with coliform organisms of faecal type. On each occasion that such a contamination occurred a leak in the main was detected at some point or other in its passage through the low-lying plain to the north of the town. With the repair of the leaks the contamination subsided. Although under these conditions chlorination of the supply was considered advisable, no means could be found to do this as an emergency measure. The plain above referred to is a well-stocked grazing area and the probability is that the contamination noted was of animal and not of human origin. The fact that no cases occurred which could only be satisfactorily accounted for if the water-supply system were a source of infection substantiates this view.

#### MILK-SUPPLY

There remained the town milk-supply to be considered. The local vendor is also a producer. Until 1st September, 1947, milk had been produced at a dairy some two to three miles north of Kaikoura. Water for this dairy was supplied from a well. On that date milking had been discontinued at this dairy, and from then on a newly built dairy a mile or so nearer the township was used. Apart from this change of location, no other significant alteration had been made and no staff changes had occurred during the past twelve months. The milking was done by the producer himself with the assistance of a male employee. Another employee normally acted as roundsman but took no part in the milking. The roundsman had been on sick-leave from the 30th September to 8th October. He complained of general aches and pains and a sore throat. During his period of leave the milking hand had acted as roundsman and a relative of the producer's had assisted with the milking. Similar arrangements had been made several times in the past. The temporary hand had no history of a recent illness and had not had typhoid or any illness resembling it. The roundsman had served in the Middle East and had been hospitalized in Egypt at or about the same time that New Zealand troops then stationed there suffered a considerable epidemic of typhoid fever. On the score of his recent illness and the possibility of his having had typhoid in the Middle East, the producer agreed temporarily not to engage the roundsman on any work having to do with the production or distribution of milk. After two series of specimens of blood, stools, and urine from the roundsman had been examined with negative results and a report received from Army Base Records that he had not had typhoid while in the Army, he was allowed to resume duty. The new dairy shed was situated immediately