

*Honorary Advisory Mechanical Engineer.*

A general technical supervision under the direction of the Director of Works over both of the power-house staffs, plant, and machinery at Trentham and Featherston Camps was exercised by Mr. G. A. Pearson, A.C.M.E., New Zealand Government Railways, who placed his services at the disposal of the Defence Department in an honorary capacity. Mr. Pearson ceased to act in the capacity specified above on the control of the Works Section in the camps being taken over by the Ordnance Branch.

*Honorary Fire Inspector.*

In order that the fire-prevention of both Trentham and Featherston Camps should be placed upon a satisfactory footing Captain Hugo, Dominion Fire Inspector, was appointed as Honorary Fire Inspector to the Defence Department, with the result that all the recommendations made in the direction of fire-prevention were promptly carried out by the Works Branch.

*Urgent Repairs, &c.*

The procedure in regard to dealing with urgent repairs, Engineer damages, and marching-in and marching-out inspections is detailed fully in Camp Standing Orders, and has been strictly adhered to.

*Camp Buildings and Accessories.*

These are indicated on the block plans of both Trentham and Featherston Camps. Details in reference to some of the principal buildings and works are commented upon below.

*Bakeries.*

A bakery at Featherston Camp with a battery of four ovens, and a bakery at Trentham Camp with a battery of three ovens, were designed and constructed by the Works Branch upon a new principle. The capacity of each oven is 300 lb. loaves. Firing is continuous when required, so that subsequent batches can be dealt with as the ovens are emptied. 9,000 lb. per day has been baked at Featherston Camp. This branch has no statistics available as regards the output of bread at Trentham Camp bakery, but has been assured that the results were eminently satisfactory. Firing is carried on in a separate compartment, thus eliminating dirt, &c.

The cost of construction was—Trentham Camp, £1,000; Featherston Camp, £800. From information supplied by the Director of Supplies and Transport, a saving as under has been effected over contract prices: Trentham Camp, £1,380 per annum; Featherston Camp, £3,600 per annum.

*Water-supply, Featherston Camp.*

Owing to the growth of Featherston Camp it was found necessary to remodel the water-supply, and in this connection designs were prepared by the Works Branch for a gravitation scheme. The former supply was derived from a well and pumped to a 13,000-gallon tank, and from thence distributed by means of pipes to the camp. In dry periods the water in the well was frequently so low that the camp supply had to be cut down to bare necessities, causing great inconvenience to the troops.

The new scheme embraced the construction of a reservoir, with settling-tanks and sand-filters installed at a point about a mile north-east of the camp. The supply is obtained from the Featherston-Longwood Water-race, the intake of which is situated three miles from Featherston Camp.

The total capacity of the reservoir (which is duplicated) is 160,000 gallons of filtered water per diem—20 gallons per head per diem. The maximum consumption when the camp was fully occupied was 140,000 gallons per diem.

It is satisfactory to note that on no occasion since the installation was there a failure in water-supply to the camp, nor had any curtailment, even in periods of drought, to be made.

*Fire-prevention.*

The water-supply in connection with the fire-fighting appliances is practically identical for both Trentham and Featherston Camps. It consists of underground concrete tanks of 5,000 gallons capacity, situated at convenient points and supplied from the water-mains.

The fire-fighting appliances installed at both camps prior to demobilization are as follows: Trentham Camp—Two manual engines; fire-buckets; chemical extinguishers in all principal buildings; fire-hydrants at Infectious-diseases Hospital. Featherston Camp—One manual engine; one chemical engine; one petrol motor-engine.

*Power-house, Trentham Camp.*

The original power plant installed was, on the growth of the camp, found to be inadequate to meet requirements, and consequently a complete new and up-to-date plant, including a new building, was provided. The electrical communications were also practically reconstructed.

There are 5,000 points of electric light, and seven motors, totalling 105 horse-power, connected to reticulation.

In regard to the power-house at Trentham Camp it is pleasing to record that the cost of the reconstruction and new plant was practically covered by the sale of a portion of the old plant and the revenue derived from the supply of electric current to encroachment holders.

In connection with the disposal of the sewage (fluids) under pressure, stereophagus pumps, directly connected with 25-horse-power vertical electric motors, had to be provided, and since installation to date of handing over by this branch to the Ordnance Branch there has been no single case of failure recorded.

*Power-house, Featherston Camp.*

Similarly to Trentham Camp, Featherston Camp grew considerably in size after the Public Works Department had completed the main structural work, and on the taking-over by the branch of the