

Culverts.—The cost of glazed pipes is now so reasonable that, even with moderate carriage added, culverts can be laid at least as cheaply as those of wood, with the great advantage of being permanent; and, where the size would add seriously to the cost of carriage, concrete pipes can be made by ordinary labour in most parts of the district, still as cheap as wood; therefore I propose in future to use as little wood as possible.

I desire to express my obligations to Messrs. Howorth and Wilkins, the engineers to the Southland and Wallace Counties, for their uniformly courteous and valuable assistance whenever required.

G. W. WILLIAMS, Chief Surveyor

APPENDIX No. 4.—CO-OPERATIVE WORKS.

EXTRACTS FROM REPORTS BY CHIEF SURVEYORS AND OTHERS ON THE WORKING OF THE CO-OPERATIVE SYSTEM FOR THE TWELVE MONTHS ENDED THE 31st MARCH, 1895.

AUCKLAND NORTH.

NEARLY all the works carried out by the department in this district have been carried out under the co-operative system.

The works generally have been done in a satisfactory manner. From my return you will perceive that the average daily rate of wage earned has been 6s. 6d. The highest average on any one road is 8s. 3½d., being on the Waimamaku-Punakitere, and the lowest 4s. 3½d., being on the Raglan-Tuakau Road.

As stated in my last year's report, when votes to be expended are small, the cost of tools, tents, &c., which the men are supplied with free, and the pay of timekeeper or inspector absorb too large a percentage of the vote; in such instance work has been let in a manner similar to the co-operative system, but it has been stipulated that the men found all tools, tents, and other requisites themselves, and finished the work within a stated period, so that only periodical visits from an inspector were necessary.

I have noticed that when co-operative gangs have been elected by ballot, and where the men had no previous knowledge of each other they do not as a rule, work amicably together.

The man who may be good at picking or shovelling thinks he ought to have a spell at the apparently easier work of dressing the batters, and consequently undertakes that work and leaves it so unsightly that it has to be done over again; delays such as these retard the work and, of course, reduce the party's earnings. If men are re-employed they generally re-form their parties, and things go on more smoothly. One of the objections to the employment of people from the towns on co-operative works was that no sooner had they completed their job than they returned to town and put down their names on the list of unemployed at the Labour Bureau Office, thus practically never reducing the number of the unemployed. The system now in operation of settling the men on the ground and making them work the land in conjunction with the road-works will obviate this objection.

There can be no doubt that the co-operative system has been a good thing for the northern settlers. Before, when small jobs were tendered for, the settler anxious for work would cut prices down to such an extent that at the end of his contract he was generally a poorer man. Now, if they work they can earn a fair wage and have something left after paying expenses to improve their sections.

GERHARD MUELLER, Chief Surveyor.

NORTH ISLAND CENTRAL.

At the 1st April, 1894, there were three contracts in hand. During the year thirty-eight more were let, and eighteen have been completed, leaving twenty-three in hand at the 31st March last. The amounts of the contracts vary from £6 15s. 10d. to £684 13s. 7d., and the number of men per contract from one to twelve. All the contracts completed were for roadwork, and embraced felling and clearing bush, cuttings and side-cuttings in earth and rock, culverts, drains, &c. The work in all cases has been well done, and the men employed have been industrious and attentive to their work.

The great difference between the maximum and minimum wages of 4s. 6½d. per day that appears in the statement is accounted for by the fact that the lowest wage was made by an old man who could not do any way near a navvy's day's work, and that those men who earned the maximum wage were exceptionally good workers, and that the quality of the material they had to excavate proved rather better than was expected when the contract was let. Both contracts were for small amounts. The average loss of time through wet weather is low, because there was very little work in hand during the winter months. The general character and ability of the men for work has been good; there have been no disputes or misunderstandings in regard to the works.

Preparations are being made for letting more contracts, and I expect a large increase in the number of men employed during the coming year.

Eight of the contracts completed during the year were on the Stratford-Ongaruhe road, and employed 58 men. They comprised 72 acres of bush-felling and clearing; 103 chains of surface-forming; 250 chains of drains, containing 11,450 cubic yards; 43,709ft. of totara timber in